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Case Report

# Online Schooling as a Supported Educational Opportunity for a Patient with Psychosis: A Case Report from Qatar

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## Abstract

Supported education interventions have reasonable evidence in the recovery and rehabilitation of patients with psychosis. Advances in online learning increased accessibility to learning. Unfortunately, patients with mental illness have less access to online learning. Educational institutions are yet to integrate online learning as a supported educational system for patients with mental illness. We reported on a young adult with psychosis who resumed secondary school education after absenteeism with the support of the school's online education infrastructures.

***Keywords:*** *Online Schooling; Online Learning; Supported Education; Psychosis; Secondary School*

## Introduction

Education is a human right, as declared by the United Nations [1]. Leaving education before completing secondary school is associated with poor health, social adversities, and economic loss [2,3]. Youth with first-episode psychosis are particularly vulnerable to poor academic achievements and school dropouts [4]. Up to 70% of patients with first-episode psychosis across multiple countries do not complete secondary school [5]. In addition to the burden of positive symptoms of psychosis, medication side effects and the stigma of mental illness, negative and cognitive symptoms are also significant barriers to school attainment [6]. Social cognitive deficit likely mediates poor social functioning in a typical school environment [7]. Enhancing school participation of youth with first-episode psychosis is feasible via team-based supported education [8-11]. First-episode psychosis services and many academic institutions have adopted various supported education models for people with mental illness with promising results [12].

The use of digital technology shows promising outcomes in the functional rehabilitation of patients who have psychosis with cognitive deficits [13]. However, the evidence for using online learning as a supported education model for youth with psychosis is still lacking [14]. With the large-scale shift to online schooling during the Coronavirus (COVID-19) pandemic lockdown in 2020, concerns emerged about the potential negative impact of online education on the mental health of children and adolescents. Emotional and mental health difficulties were proposed to emerge in the context of social isolation while learning online. Psychological difficulties were also proposed to stem from boredom, prolonged screen time, digital divide, digital literacy, and poor online learning delivery methods [15-20]. Online learning likely carries extra challenges for youth with psychosis and cognitive deficits. However, it may also provide the benefit of slower

self-paced learning. It may also reduce anxiety induced by social expectations in a classroom setting, especially in patients with social cognitive deficits.

The COVID-19 pandemic was also a turning point in Qatar's educational system. A rapid shift from traditional classroom learning to online schooling ensured education continuity during the pandemic lockdown. As online learning was not available in schools in Qatar before the pandemic, the quick shift to the online model required significant governmental investments in infrastructure to support schools and students [21,22]. The schooling model was then transformed from a fully online model to a blended one until traditional classroom learning resumed in March 2022.

We discuss a case of a 21-year-old Arab woman diagnosed with schizophrenia with cognitive and negative symptoms. She returned to formal education using a secondary school's online learning infrastructure in September 2022.

## Case Report

Our patient's first contact with Mental Health Services was in 2018 at age 17. She attended private Child and Adolescent Mental Health Services upon referral from her family physician. The family consulted the family physician because of the progressive deterioration in the patient social and academic functioning for six months. She was apathetic and not motivated to carry any pleasurable activity or previously liked hobbies (playing video games and painting). She became socially withdrawn and rarely spoke to family members. She showed no interest in attending school or studying, and her grades deteriorated significantly. The family observed her to have insomnia, periods of distress and crying spells. The patient often reported excessive guilt of religious themes. She also reported auditory hallucinations since the age of 15. The frequency and intensity of the voices increased steadily over the years. The voices were derogatory and, on occasions, commanding. She was frightened by the hallucinations and described a persistent low mood. The patient's engagement with the family physician was superficial. She avoided eye contact, and her responses were brief and monotonous. She scored 18 when screened for depression using PHQ9 (moderate depression). The patient had no family history of mental illness. She lived with her parents, an older brother, and a younger sister. The home environment was stable, with no reported stressors. The patient's mother denied eventful pregnancy or delivery. The patient had normal developmental history and had no significant childhood events. The patient had no history of substance misuse. After the initial encounter with the family physician, the patient was referred to private Child and Adolescent Mental Health Services, where she was diagnosed with depression with psychotic symptoms. She was treated with quetiapine 50 mg at night and fluoxetine 10 mg daily. Unfortunately, the patient disengaged from the services after a couple of weeks. The patient explained later that the medications did not help her, and she could not tolerate their side effects. We could not obtain much information on this encounter as this private service is separate from ours.

The patient contacted her family physician again in August 2019 at age 18. She complained of deterioration in her mood with fleeting passive death wishes. She also reported severe distress from the psychotic experiences. She experienced running commentary, derogatory 3rd person and command hallucinations. The patient's functioning deteriorated further, and she failed school subjects. The family preferred to attend a private adult psychiatry service where the patient was tried on paliperidone tablets for around ten weeks. The patient disengaged again from that service as she experienced no clinical response in addition to severe medication side effects (oculogyric crises and torticollis). The patients presented twice to the emergency department in the first half of 2021. She was assessed every time by the consultation liaison psychiatry team. She was offered admission and medications (risperidone on the first time and aripiprazole on the second), but the family declined admission on both occasions. The patient did not attend the outpatient appointments organized following discharge from the emergency department. Adherence to medications was not confirmed during that period. The patient's 3rd presentation to the emergency department was in August 2021, and she was subsequently admitted to the inpatient psychiatry unit for 62 days. During the admission, the patient reported increased severity and frequency of the derogatory auditory hallucinations in the 2nd and 3rd person. She also reported running commentary hallucinations, thought broadcasting, thought withdrawal, delusional perception,

thought echo and delusions of control. The patient presented with negative symptoms, self-neglect, and severe social isolation. She had already dropped out of the last year of secondary school. The patient was observed to have a blunt affect and psychomotor retardation. She was withdrawn and did not participate in occupational therapy ward activities. The patient was treated with oral aripiprazole and later switched to a depot formula of 400 mg monthly injection. She was also prescribed oral olanzapine, which was titrated steadily to 20 mg daily. She was also prescribed sertraline up to 200 mg and procyclidine 5 mg daily. The patient's response to medications was trivial, and she continued to report distressing auditory hallucinations but no other psychotic symptoms. Her social interactions in the ward improved slightly, and she managed to have successful breaks from the ward accompanied by her family. The patient was referred to the Day Care Service of the Adult Community Mental Health Team after discharge. The Day Care Service is a multidisciplinary mental health rehabilitation service. The patient was commenced on clozapine while other medications were tapered off slowly. The patient started to show a significant clinical response after she reached 450 mg of clozapine/day. The auditory hallucinations became infrequent and muffled, and the patient could ignore them easily. She received input from the occupational therapist, psychologist, nutritionist, and nurses. Her engagement with the non-pharmacological interventions improved steadily throughout the treatment. She started to participate in group sessions. The family reported significant improvement in the patient's social functioning. She started attending extended family events and going out with her sister. She also started swimming and signed up for an art class. In September 2022, the patient expressed interest in returning to school. The patient was still wary of school physical attendance as she did not feel socially confident. The stigma of mental illness was also a factor that the patient was concerned about. Supported by the Mental Health Services recommendations, the school accepted the patient's resumption of learning through their existing online platforms. The patient required extra support in some subjects, but the school lacked the resources. The patient's family provided the extra support by hiring private tuition at home. So far, the patient has completed two academic terms of the final year of secondary school and was preparing for the last term exams at the time of writing up the case. Our patient continues to receive interventions from the Day Care team, including social skill training.

## Discussion and Conclusion

Our patient experienced a relatively prolonged untreated psychotic illness that affected her academic and social functioning. Unfortunately, early interventions for psychosis were not provided systematically, as there are no designated first-episode psychosis services locally. Academic deterioration was not promptly identified and managed either, as the local school did not have supported educational programmes for youth with psychosis. However, the availability of the online education infrastructure in schools, which was set up during the COVID-19 pandemic in 2020, facilitated the patient's return to education. Online schooling could support patients with social cognitive deficits in achieving education outside the typical classroom where social expectations are high. On the other hand, online education brings multiple challenges to patients with cognitive deficits as they are likely more vulnerable to cognitive overload. As with our patient, the online education provided by the school was not designed for students with cognitive deficits. The patient was fortunate that her family hired private support at home.

A well-structured online education could provide opportunities to support youth with psychosis to continue their learning. Tailoring the online content and delivery to facilitate slower-paced education structured to avoid cognitive overload is likely helpful. Social isolation remains an issue in online learning. However, it may provide a safer learning environment for patients with a social cognitive deficit while they continue receiving social skill training. This case highlights the need for collaboration between the local educational institutions and the Mental Health Services to use the existing online education infrastructure to develop supported education programmes for youth with psychosis.

## Ethics

The authors obtained a written informed consent from the patient. Hamad Medical Corporation Institutional Review Board approved the case report for publication on 30/4/2023 (MRC-04-23-272).

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