


COVID-19 outbreak in a child and adolescent psychiatric ward: Challenges and lessons to be learned -Case study

Sagit Israeli RN, MA¹ | Ilya Kagan RN, MA, MBA, PhD²  |
Sarit Yerushalmi RN, MA³ | Sophi Gelman RN, MA⁴ | Inbal Yarkoni RN, MA⁵ |
Larisa Levitan RN, MHA⁶ | Daniel Argo MD^{7,8} | Yoav Kohn MD, MHA^{9,10}

¹Nurse Manager, Child and adolescent psychiatric ward, Jerusalem Mental Health Center, Jerusalem, Israel

²Head, Nursing Department, Ashkelon Academic College, Ashkelon, Israel

³Senior Coordinator, Nurses' Development, Nursing Administration, Jerusalem Mental Health Center, Jerusalem, Israel

⁴Director of Nursing, Jerusalem Mental Health Center, Jerusalem, Israel

⁵Director of Nursing Services, The Government Hospitals' Division, Ministry of Health, Jerusalem, Israel

⁶Head Nurse of Infectious Diseases Prevention, Jerusalem Mental Health Center, Jerusalem, Israel

⁷Director, Open Ward (B), Jerusalem Mental Health Center, Jerusalem, Israel

⁸Former Head of Infectious Diseases Prevention, Jerusalem Mental Health Center, Jerusalem, Israel

⁹Clinical Associate Professor of Psychiatry, Hebrew University-Hadassah School of Medicine, Jerusalem, Israel

¹⁰Director, Child and Adolescent Psychiatric ward, Jerusalem Mental Health Center, Jerusalem, Israel

Correspondence: Ilya Kagan, RN, MA, MBA, PhD, Nursing Department, School of Health Sciences, Ashkelon Academic College, Ben Tzvi 12, Ashkelon 78211, Israel.
Email: kagani@gmail.com

KEYWORDS

child psychiatry, COVID-19, inpatient psychiatric care, pandemic

1 | INTRODUCTION

Since the first cases of COVID-19 in Israel were reported in February 2020, over 4,098,969 people have tested positive for coronavirus, and 10,749 have died (May 11, 2022). The five waves of pandemic faced by Israel differed in hospitalization strategy, treatment, and several other clinical issues. The number of new cases dropped dramatically in Israel in May 2021, although the year (2022) have seen a re-emergence of disease, with the rates rising once again in the fifth wave of the pandemic (Ministry Of Health [MOH], 2022). In response to the pandemic, severe limitations were enforced on Israel's entire population, including mandatory face masks, isolation after exposure to a positively tested individual, and partial or total national lockdowns (MOH, 2021). As in other countries, these limitations adversely affected the provision of psychiatric care (Bojdani et al., 2020; Boldrini et al., 2021; Hoyer et al., 2020). Dealing with the COVID-19 pandemic in child psychiatric wards has not received sufficient exposure in the literature. This report presents the experience we gained in dealing with the coronavirus

outbreak in a closed children's psychiatric ward, the steps taken, and the consequences of these circumstances for routine care in the ward.

2 | BACKGROUND

In response to the pandemic in child psychiatric inpatient wards in Israel, the length of parental visits was limited and weekend vacations were banned. This was an internal regulation imposed by our hospital but also by most other psychiatric hospitals in Israel. Staff members or hospitalized inpatients who tested positive for COVID-19 were isolated, as well as anyone who had been in contact with them. In such cases, the inpatient ward involved was closed for new admissions until the end of the isolation period (12-14 days). This occurred several times in our department, due to the infection of small numbers of affected individuals and led to a decrease in the number of referrals, when only children who experienced more severe mental illness presentations were admitted to the inpatient unit.

In addition, there was a shift in the typical referral path to the unit. Referrals decreased from clinical sources because of a decrease in treatment of children and adolescents as outpatients due to the limitations imposed on clinic visits and an unease concerning treatment via video-meetings. Since teachers and welfare workers saw fewer children or adolescents during this period, referrals were predominantly dependent on parents. These parents, in our experience, were often dealing with psychological issues of their own or were working longer hours in essential services and were thus less alert to the needs of their children. On the other hand, theoretically, it was possible that having their parents at home enabled children to modify their behaviors more effectively and also that children had less opportunity to experience social/peer-related issues that lead to hospitalization. Indeed, after the initial lockdowns ended, we saw a dramatic increase in referrals both to our ward and to other mental health services in Israel, as shown in a retrospective cohort study (Bilu et al., 2022).

Pandemic restrictions impacted treatment in various ways. The treatment available in the child and adolescent ward was subject to restrictions related to the contact between staff and parents, thereby impairing the quality of the guidance provided. For example, parents did not meet with therapists and those lacking the technical ability to participate in video calls were very limited in their interactions with the staff.

Another departure from the norm was that the process of discharge from the ward became abrupt rather than gradual. Discharge is usually achieved after a period that includes several home vacations, with nursing and medical staff monitoring inpatients' reaction to this stage. As home visits were banned because of the pandemic, this was not possible. All these differences necessitated adjustment and accommodation of the medical, nursing, and psychotherapeutic staff of such wards. Nevertheless, there was no formal guidance for the response of child and adolescent inpatient facilities in Israel to a massive outbreak of COVID-19 within the ward.

We found no studies on dealing with the COVID-19 pandemic in child and adolescent psychiatric wards. There is very little information on the subject. Our experience can therefore serve as useful instruction for other hospitals around the world. This article fulfils this function by: (a) describing an outbreak of COVID-19 that occurred in February 2021 in a child and adolescent psychiatric ward of a large mental health center in Israel; and (b) reporting the experience gained while coping with this crisis, which is relevant for other medical and nursing staff in similar facilities.

3 | CLINICAL SETTING: CHARACTERISTICS

Our child and adolescent psychiatry department includes a 30-bed inpatient ward comprised of two units. The adolescent unit of the ward serves a large district (population of ~1 million). The child unit is one of only two wards admitting minors under the age of 12 to a psychiatric hospital in Israel, and thus serves the entire country (~10 million inhabitants). The units are located on two separate floors of the same building. The nursing staff comprises 35 registered nurses,

nursing aides, and volunteers, working in shifts of 3–8 persons (depending on the shift). The other members of the multiprofessional staff include child and adolescent psychiatrists, psychologists, social workers, occupational therapists, and other therapists (art, music, drama, animal assisted, and dance therapy). Hospitalized children and adolescents study in a dedicated school attached to the ward, which is operated by special education teachers. Staff members are assigned to one of two teams who treat either adolescents or children, although some work in both units, especially the nursing staff.

Children and adolescents are usually admitted due to significant levels of distress and disturbance related to their background of serious mental health disorders. They require close monitoring and intensive psychotherapy not available through outpatient services. The mean hospital stay is 45 days, but the range varies from a few days to over a year.

Hospitalized children and adolescents are treated in most cases (but not all) with psychotropic medications. All inpatients receive individual psychotherapy twice weekly, either psycho-dynamically oriented or cognitive behavioral therapy-based, provided by child and adolescent psychiatrists, psychologists, and social workers. Skilled therapists also provide individual and group sessions of art, music, dance, drama, and animal-assisted therapies for the inpatients. Daily milieu therapy group sessions are run by the nursing team in collaboration with other team members. Each patient is assigned a case manager who is responsible for the integration of interventions, contact with external services involved with the child, and most importantly, provides support and guidance for the parents. Inpatients and their parents are encouraged to keep in touch through daily phone calls, visits, and short vacations on weekends (depending on the clinical condition). The nursing staff are in charge of supervising the inpatients throughout the day and for ensuring that they follow a healthy and structured schedule. This involves helping inpatients with daily living activities, providing medications and other mental health nursing interventions as needed, and preventing self-harm or harm to others. The nursing staff also mediate therapy groups and organize leisure activities. They facilitate the visits of parents and are available for providing them with information through phone calls or on visits to the ward. In addition, they participate in all staff meetings and are involved in building individual treatment plans.

4 | AN OUTBREAK OF COVID-19 IN THE WARD

As described above, in common with other psychiatric inpatient facilities, the regulations enforced in an effort to limit the spread of COVID-19 in Israel adversely affected the work of the department. In Israel, preparations for the coronavirus outbreak focused predominantly on general hospitals, while psychiatric hospitals received fewer resources and attention. As a result, the ward was not prepared for the major outbreak that began in February 2021, when one

adolescent inpatient with mild URTI (Upper Respiratory Tract Infection) symptoms was found positive for COVID-19 via a polymerase chain reaction test. In the following days, and despite isolating this patient, 15 other inpatients (of 27 hospitalized) and 6 staff members (of 100) also tested positive. Most of the positive-testing inpatients had mild symptoms or were asymptomatic, and none exhibited severe symptoms that required significant medical interventions. All positive-testing staff members had been vaccinated (about 95% of the total personnel). In addition, of two adolescents (over the age of 16) who had been vaccinated, one tested positive. Two adolescents who had been positive for COVID-19 two months previously tested negative.

5 | CHALLENGES AND RESPONSE

In response to the crisis, we tried to discharge as many inpatients as possible. Due to the severity of the clinical psychiatric situation and lack of support systems at the community level, only two COVID-19 negative and two positive inpatients could be discharged to home isolation. The entire department was then closed to new admissions and quarantined. After much deliberation, it was decided to separate all children and adolescents into two newly formed dedicated units: a unit for COVID-19 positive inpatients on the first floor of the building, and a unit for COVID-19 negative inpatients on the second floor. This created many difficulties and challenges.

The first floor of the building required physical alterations to allow us to separate children from adolescents with a separate nursing staff for each area. Measures were taken to ensure the safety of adolescents at high risk of self-harm and danger to others. This level of protection is not usually available on this floor, which is normally used for children with a lower risk level. For example, sharp utensils were removed from the dining room and the bathrooms were locked. On the second floor, we had to disinfect the entire floor after the COVID-19 positive inpatients left the unit and before uninfected inpatients entered the space. We did not physically separate the one negative child from the other negative adolescents on this floor, and it was necessary to pay close attention to make sure he adjusted to this special situation.

All nursing staff, medical staff, and other mental health professionals on both floors worked while wearing full protective gear: hazmat suit, face shield, gloves, and N95 masks. Personal protective equipment (PPE) was not always available in all sizes needed and was extremely uncomfortable to wear for long periods of time. Computers, used by staff for updating electronic health records, had to be disinfected after each use. Staff were not allowed to eat or drink inside the ward. Inpatients ate from closed food trays. Because of the shortage of nursing staff (some were in isolation at home), other mental health professionals replaced the regular personnel from time to time to help them rest and recover. Unfortunately, some of these workers were not fully acquainted with the patients and with the ward's treatment policy. Nursing staff worked on only one of the floors. Because of this separation and the need to change PPE, it was impossible to obtain timely re-enforcement from nursing staff

working on the other floor in times of need (e.g., to restrain a violent patient).

Other workers, including cleaning and maintenance personnel, had to change PPE when entering the "negative" upper floor after working in the "positive" lower floor. Since there were no designated changing areas, this was done in limited space at the entrance to the ward, which made it difficult to separate used from unused gear. Unlike COVID-19 units in general hospitals, where nursing and medical staff could minimize their physical contact with positive inpatients, psychiatric work dictates continuous close contact with inpatients, which increased the risk of staff infection. There were no spaces available for rest and recovery outside the ward, and we had to establish temporary facilities in the courtyard. Psychotherapy sessions were shortened. Meetings and contact of clinicians with parents were limited to phone and video conversations. Teaching by the ward school personnel was mostly provided by video, with the help of nursing staff. At first, children and adolescents were not allowed to exit the building, but after a week they were allowed to go out to the ward's courtyard while maintaining separation from unprotected staff and taking care not to mix "positive" and "negative" inpatients.

Parental visits were not allowed and parents' contact with the children and adolescents was limited to phone and video calls. This necessitated coordination and supervision by nursing staff and was limited by technical constraints (Wi-Fi bandwidth, availability of tablets, etc.). We allowed the use of cellular phones, which is normally not permitted on the ward. Teamwork was coordinated by the ward's management. The ward's director, attending psychiatrists, senior psychologists, social workers, head nurse, and school principal, all sat together in designated spaces in a different building at the ward's school, which served as the "headquarters." Professional support and supervision were provided by the hospital medical and nursing management and the unit for infection control and prevention.

Despite all these difficulties, the 12-day isolation period of the ward was clinically uneventful. No new cases of infection occurred in the ward during this time. The clinical status of all inpatients remained stable with no worsening of psychotic, behavioral, or suicidal symptoms. Return to normal routine after isolation was also successful, with no significant aftermath impact. The staff was exhausted but proud of their accomplishments. A feeling of increased solidarity between the nursing staff and the other team members was also reported.

6 | CONCLUSIONS AND IMPLICATIONS FOR NURSING PRACTICE

At the start of the COVID-19 outbreak there were extreme and apocalyptic forecasts of what could happen if the disease erupted within psychiatric wards (Ji et al., 2020; Rapoport, 2020;). Although such horrific scenarios did not transpire in our setting, the ensuing events should guide preparations for future emergencies and pandemics.

In spite of the pessimistic predictions, at least in Israel, no formal preparations were made for such a situation. Our staff, with the help of

the hospital management, was able to deal with the crisis while utilizing resources in a flexible manner. The commitment and dedication of the entire team, including members of the nursing, medical, and para-medical professions, were key to the success of the response. The inpatients themselves also felt the need to make a special effort to overcome the unique difficulties of the situation. Although the methods for coping with the outbreak proved very successful, it cannot be concluded that this will be the case if an identical or similar crisis reoccurs. It is clear that psychiatric and general hospitals should make plans in advance. These include the preparation of physical, human resources, and technical solutions that will allow those with special needs to continue treatment under conditions of isolation. These plans should be known to management and staff and should be practiced in simulated training drills. The COVID-19 pandemic is still not resolved, and it also seems inevitable that other potential future crises might affect medical treatment in similar ways.

AUTHOR CONTRIBUTION

All authors conceived the paper. Sagit Israeli, Larisa Levitan, Daniel Argo and Yoav Kohn collected data. Sagit Israeli, Ilya Kagan and Yoav Kohn took lead in writing the manuscript. All authors reviewed the final manuscript before submission for publication.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author [IK], upon reasonable request.

ORCID

Ilya Kagan  <http://orcid.org/0000-0002-2298-0308>

REFERENCES

Bilu, Y., Flaks-Manov, N., Bivas-Benita, M., Akiva, P., Kalkstein, N., Yehezkeli, Y., Mizrahi-Reuveni, M., Aka-Zohar, A., Shapiro Ben David, S., Lerner, U., Bodenheimer, G., & Greenfeld, S. (2022). Mental health assessment of Israeli adolescents before and during the

COVID-19 pandemic. Under review. *Preprint in MeRxiv*. <https://doi.org/10.1101/2022.01.06.22268809>

- Bojdani, E., Rajagopalan, A., Chen, A., Gearin, P., Olcott, W., Shankar, V., Cloutier, A., Solomon, H., Naqvi, N. Z., Batty, N., Festin, F. E. D., Tahera, D., Chang, G., & DeLisi, L. E. (2020). COVID-19 pandemic: Impact on psychiatric care in the United States. *Psychiatry Research*, 289, 113069. <https://doi.org/10.1016/j.psychres.2020.113069>
- Boldrini, T., Girardi, P., Clerici, M., Conca, A., Creati, C., Di Cicilia, G., Ducci, G., Durbano, F., Maci, C., Maone, A., Nicolò, G., Oasi, O., Percudani, M., Polselli, G. M., Pompili, M., Rossi, A., Salcuni, S., Tarallo, F., Vita, A., & Lingiardi, V. (2021). Consequences of the COVID-19 pandemic on admissions to general hospital psychiatric wards in Italy: Reduced psychiatric hospitalizations and increased suicidality. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 110, 110304. <https://doi.org/10.1016/j.pnpbp.2021.110304>
- Hoyer, C., Ebert, A., Szabo, K., Platten, M., Meyer, A., & Laura, L. (2020). Decreased utilization of mental health emergency service during the COVID-19 pandemic. *European Archives of Psychiatry and Clinical Neuroscience*, 271, 377–379. <https://doi.org/10.1007/s00406-020-01151-w>
- Ji, H., Liu, L., Huang, T., & Zhu, Y. (2020). Nosocomial infections in psychiatric hospitals during the COVID-19 outbreak. *The European journal of psychiatry*, 34(3), 177–179. <https://doi.org/10.1016/j.ejpsy.2020.04.001>
- Ministry of Health (MOH). (2021). *Covid-19 Guidance*. Jerusalem, Ministry of Health, Israel. <https://www.gov.il/en/Departments/Guides/ramzor-cites-guidelines>
- Ministry Of Health (MOH). (2022). *Israel COVID-19 Data Tracker*. Jerusalem, Ministry of Health, Israel. <https://www.gov.il/en/departments/guides/information-corona>
- Rapoport, R. (2020). 'Every day is an emergency': The pandemic is worsening psychiatric bed shortages nationwide. *STAT*. <https://www.statnews.com/2020/12/23/mental-health-covid19-psychiatric-beds/>

How to cite this article: Israeli, S., Kagan, I., Yerushalmi, S., Gelman, S., Yarkoni, I., Levitan, L., Argo, D., & Kohn, Y. (2022). COVID-19 outbreak in a child and adolescent psychiatric ward: Challenges and lessons to be learned -Case study. *Journal of Child and Adolescent Psychiatric Nursing*, 1–4. <https://doi.org/10.1111/jcap.12393>