Transformation and operation of a uniform psychiatric ward dedicated to COVID-19 patients during the pandemic

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Summary

This article aims to describe the experience of transforming the Clinical Department of Adult, Child and Adolescent Psychiatry of the University Hospital in Krakow (CDACAP) into a ward designated by the Malopolska Voivod to provide the treatment for mentally ill adults from Malopolska Voivodship and adolescents from the south of Poland during the COVID-19 pandemic. We discuss sequent stages of transformation, practical solutions and difficulties encountered in the process. 9 patients with confirmed SARS-CoV-2 infection were hospitalized in the CDACAP between 09.04 and 29.05.2020, and 97 were tended to by consulting psychiatrists in the main building of the University Hospital in Krakow between 23.03 and 23.05.2020. In our experience, the Polish healthcare facilities, especially psychiatric and long-term care ones, were ill-equipped to operate during the pandemic crisis. This situation has brought out the nationwide lack of systemic solutions, particularly in the areas of child and adolescent psychiatry as well as forensic psychiatry. Functioning during the epidemic and confronting the risk of rapid deterioration in patients’ condition clearly pointed out the necessity of creating psychiatric wards within the multispecialty hospitals. The requirement for ensuring separate spaces for patients with SARS-CoV-2 infection or with exclusion thereof should be considered in the psychiatric reform which assumes the regional responsibility of stationary wards.

Key words: public health, infectious diseases, COVID-19

Introduction

In late 2019, SARS-CoV-2, a new type of zoonotic coronavirus, became a pressing health issue in the People’s Republic of China, and has then spread all over the world, also to Poland. Clinical signs and symptoms caused by SARS-CoV-2 became known
as Coronavirus Disease 2019 (COVID-19). On 11 March 2020, the World Health Organization (WHO) announced that the spread of COVID-19 can be characterized as a pandemic [1].

On 26 March 2020, the Malopolska Voivod ordered that the University Hospital in Krakow (UHK), including the Clinical Department of Adult, Child and Adolescent Psychiatry of the University Hospital in Krakow (CDACAP) will hospitalize patients with mental disorders diagnosed with COVID-19 aged over 14 years. 15 hospital beds in the CDACAP were allocated to this category of patients in the former headquarters of the University Hospital. Patients in serious somatic condition were to be hospitalized in somatic wards in the main building of the new headquarters of the University Hospital in Krakow.

The CDACAP delivers medical care to adults and adolescents at consultation and diagnostic outpatient departments, in-patient wards (55 beds for adults and 32 beds for adolescents), day care wards, community mental health teams, outpatient clinics of sexology, addictions and psychology, and a Community Mental Health Center for Adults in the Krakow Srodmiescie District. The CDACAP is also a place where teaching and research are carried out by the Chair of Psychiatry, Jagiellonian University Medical College. The Department employs 48 doctors, 69 psychologists, 71 nurse practitioners, 6 occupational therapists, and 15 administrative workers. The Chair of Psychiatry employs 52 academics, the majority of whom are involved in the work of the CDACAP.

The aim of this article is to describe the currently accumulated experience from the work of a psychiatric ward operating as a ‘uniform’ COVID-19 dedicated ward where patients infected with SARS-CoV-2 (COVID+) are referred, as well as the challenges and dilemmas.

Transformation

The starting point of all further decisions and actions was the assumption that the CDACAP operation under changed conditions must be based on a systemic all-inclusive approach, with staff protection as top priority [2–4].

Reorganization of the ward management system

The first reorganization step was to set up a Crisis Management Team, a decision-making body responsible for day to day operation of the ward [3]. The team comprised the Head of the Clinical Ward, two deputies, and the Head of the Chair of Psychiatry. The team was also supported by heads of wards, CDACAP teams, project leaders, and representatives of residents. No administrative team was established as the administrative functions were allocated to the hospital’s administration department.

Three additional teams were created within the framework of the CDACAP and the Chair of Psychiatry, dedicated to the following tasks:
(1) Acquiring and updating research-based knowledge and guidelines from experts and scientific societies concerning COVID-19: principles of patient management, standards of care, regulations, etc.; identifying and exposing false information or outdated data;

(2) Organization of supplies and search for alternative solutions to address supply and equipment shortages; raising funds and contributions for the ward and the hospital;

(3) Delivering support and assistance to patients or quarantined individuals, as well as the hospital’s staff and their families, if they need to and wish to access it [5].

Apart from securing continuity of hospital supplies, measures intended to safeguard access to additional personal protective equipment (PPE) proved to be extremely important during the first several days. Unlimited and general access to PPE, without unnecessary administrative procedures, was important for the staff from the psychological point of view. It was agreed that PPE inventories available in individual subwards need to secure the continuous safety of care for a period of at least one day. Equipment decontamination policies and methods were established, including decontamination of selected PPE components (safety goggles, face shields) intended for reuse, in the event of equipment shortages. Apart from securing the continuity of PPE supplies, the team responsible for supplies management introduced and tested technological solutions to maximize safety measures in the area of communication with patients and between staff in various epidemiological zones (walkie-talkie, baby monitors, intercoms, cameras, telephones) [4, 6].

Establishing communication and data protection practices

Improvement in team communication is an important issue mentioned in the relevant literature [3, 7–11]. Two communication methods were selected, available both via cellular phones and via computer – WhatsApp and MS Teams. Initially, a single group composed of 150 individuals was set up in WhatsApp. Over time, several other groups emerged, including groups of psychologists and doctors specializing in the management of pediatric and adolescent patients. Communication planning presupposed that information is disseminated by the Emergency Management Team directly to staff members or in such a way as to ensure that incapacity of a single individual does not limit access to information for any other members of staff. It has carefully been ensured that return communication worked in the same manner. Managerial staff regularly made sure that the principles on content quality, personal data confidentiality and reporting timelines were complied with (communication was taking place from 7.00 a.m. to 5.00 p.m., with very few exceptions). This communication channel has been used dozens of times to disseminate information on issues such as risk of contamination of clinical zones, COVID-19 suspicion in a team member, negative test results for COVID-19 infection, or unexpected technical problems that could affect the operation of the ward. Common communication channels facilitated efficient organiza-
tion of staff meetings designed to address tensions and disputes in the CDACAP team between professional groups of specialized doctors, residents, psychologists, nursing staff, and other staff delivering care to patients with varying COVID infection status (negative, positive, suspicion).

Redefinition of relations within the healthcare system and relations with external entities

Establishing relationships with healthcare and public health partners in the community is one of the recommendations mentioned in the relevant literature [3]. While managing COVID+ patients, we cooperated with other wards of the University Hospital in Krakow and other hospitals, as well as a nursing home with COVID-19 infection outbreak from where our patients were transferred. In this respect, however, it should be noted that the measures taken were insufficient, and the emerged problems were related to three areas:

(1) failure on the part of other wards to take over patients with a negative SARS-CoV-2 status (COVID-), particularly adolescent patients;
(2) absence of clear guidelines on how to proceed with patients in detention;
(3) absence of clear guidelines on how to proceed with patients who are residents of nursing homes and have a positive status of SARS-CoV-2 infection but without any relevant clinical symptoms of COVID-19.

In this context, it should be noted that we were operating without any clear guidance from the Ministry of Health, the National Health Fund (NFZ) or the Voivodship Office. The final document addressing most of the problems was issued not earlier than on 21 May 2020.

Reorganization of the ward

Due to the shortage of staff and possible architectural solutions 3 departments hospitalizing patients were launched, regardless of age:

(1) COVID(+) ward for patients with a positive COVID-19 status (COVID+) and patients who contacted with a confirmed case or are in quarantine with high probability of infection (COVID+/-);
(2) COVID(-) ward for patients from in-patient wards who did not qualify to be discharged from hospital or those transferred from the COVID(+) ward;
(3) COVID+/- for patients in whom infection was not ruled out but with a low sanitary-epidemiological risk of infection (Transition Ward).

In addition, a team of on-call duty doctors was created to consult patients with mental disorders who had to remain hospitalized at somatic wards because of serious somatic condition, mainly at the University Hospital in Krakow, or those who arrived at the Emergency Department.
Throughout this period of the pandemic until 1 June 2020, patients have been admitted into two wards in the building: the COVID(+) ward and another ward for adolescents with a negative COVID-19 status. Patients were also transferred from COVID(+) ward to COVID(-) and COVID(+/−) wards. Remote care was also delivered to patients at the out-patient clinic and day wards.

A separate COVID(+/−) ward was planned to be established according to literature guidelines [6, 12–14], however, this unit has not been created due to staff shortages and space restrictions. Nevertheless, patients in the COVID(+) ward with a positive infection status were placed in separate rooms and used dedicated bathrooms to separate them from patients with a suspicion of infection. All patients hospitalized at the COVID(+) ward remained in their rooms and were allowed to leave the rooms only to go to the toilet/bathroom. Combining the functions of COVID+ and COVID+/− wards caused many technical problems, including difficulties with arranging the schedule of visits to patient rooms, patient-to-patient decontamination, or the rules on using bathrooms. The team was aware that some of the quarantined patients had a high risk of infection while some were isolated for non-strictly medical reasons (after returning from abroad, without any other risk factors).

Procedures were established for admittance of patients with and without suspicion of COVID-19 and for the transfer and management of survivors.

Reorganization of the staff work

The first step in reorganizing the work of staff was to determine sanitary-epidemiological risk of contracting the infection outside the CDACAP for each staff member. The risk was assessed by immediate superiors, taking into account privacy and data protection rules. The staff was divided into 2 groups classified to either high or low sanitary-epidemiological risk [15]. Individuals with low sanitary-epidemiological risk were delegated to work at the COVID(-) ward. Staff of the COVID(+) ward was selected according to the following criteria: voluntary registration, younger age and good general health. The COVID(+) ward staff was released from other clinical tasks. This involved doctors, nursing staff and the cleaning personnel. All staff were then divided into subteams working according to a job rotation schedule.

Points of entry to/exit from the building, passageways and areas where specific staff groups resided were separated according to literature guidelines [6, 12, 13, 16]. The COVID(+) ward and the remaining sections of the CDACAP became completely separated in physical and procedural terms after introducing logistic measures and minor architectural modifications.

A number of preventive measures were implemented to minimize the risk of inhospital infection transmission [16–19]. Social distancing rules were put in place: there was a minimum distance of 2 meters between staff members and between staff and patients; stickers were placed on the floors of rooms to mark the necessary spacing [19]. In addition to the maintenance personnel and cleaners, other staff were also
encouraged to become involved in the efforts to maintain cleanliness of the premises and to regularly decontaminate commonly used surfaces (computer mouse, keyboard, telephone) [20]. Hospital gowns were made mandatory; the staff had to take off any jewellery and watches while working with high-risk patients. In addition, members of the Emergency Management Team, heads of departments, and team managers were specifically requested to follow these rules to act as role models for the subordinate staff [21]. Our experience points to the fact lack of adherence to epidemiological safety guidelines observed among the leaders can be one of key aspects of non-compliance with the pandemic-related safety rules among other employees in the healthcare system in Poland.

Six separate levels of protection with PPE were established for particular activities, such as collecting swabs, examination of patients without a confirmed sanitary-epidemiological status, management of COVID+ patients, working at the COVID(-) ward, management of survivors, out-patient medical care, and out-patient psychological care [14].

Caring for employee mental health

Working in stressful and risky environments has been reported to affect performance and morale of employees and increase the risk of professional burnout or developing the post-traumatic stress disorder [22–24]. The outbreak of COVID-19 pandemic has placed a huge burden on the medical community not only in terms of the workload but also in the mental health aspect. As a rule, psychiatrists are at risk of physical aggression from patients with a mental condition, and while delivering care to COVID+ patients, the staff can experience particularly high stress levels because of the risk of loss or damage of PPE or other hazards attributed to unexpected patient behavior or failure to comply with the recommendations.

Our team experienced phenomena extensively discussed in the literature and attributed to individuals or groups working in particularly stressful circumstances [21]. Some individuals were observed to experience difficulty with finding solutions in situations not directly addressed in the relevant recommendations, which is an interesting and somehow unexpected consequence of the standards and procedures implemented in order to improve the working comfort of our staff.

We think that open communication, sharing reliable knowledge about risks, making preparations for every possible scenario, and the sense of togetherness and mutual support were the key elements that facilitated the work of staff despite the adverse circumstances.

Safeguarding patient rights

Historical data and studies on the negative attitudes to individuals experiencing various health problems consistently demonstrate the widespread negative social at-
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Attitude to people with mental disorders [25, 26] and individuals suffering from infectious diseases [27]. Psychiatric patients diagnosed with COVID-19 belong to a particularly vulnerable group of patients whose rights deserve extra protection. The conditions of delivering medical care during the COVID-19 pandemic have made safeguarding the rights of patients even more difficult than before the outbreak. The difficulties we faced at the COVID(+) ward included limitations in patient mobility, restricted access to the full therapeutic program, not being allowed to leave the room, and no visitors. Patients were exposed to contact with medical staff wearing personal protective equipment with face covers. Medical staff soon started to wear identification stickers on the protective clothing to be better recognizable by patients. Patients were able to contact relatives over the phone. The Patients Ombudsman at the psychiatric hospital was also kept informed about the condition and situation of these patients in weekly telephone reports. Hearings concerning admittances without patient’s consent were conducted remotely using video communication tools.

Another important problem that failed to be conclusively resolved was the relationship between the provisions of the Mental Health Protection Act and the principles of sanitary-epidemiological regime for patients who were ordered to stay in the patient rooms.

**Description of COVID+ patients and the COVID(+) ward operation**

The first quarantined patient (who returned from abroad) was admitted to the COVID-19 ward on 29 March 2020. The first patient with confirmed COVID-19 infection was hospitalized on 9 March 2020. The patient traffic is listed in Table 1.

<table>
<thead>
<tr>
<th>Month</th>
<th>March</th>
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<td>21</td>
<td>28</td>
<td>4</td>
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<td>Ward</td>
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<td>27</td>
<td>14</td>
<td>12</td>
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<tr>
<td>COVID(-) &lt; 18 years</td>
<td>29</td>
<td>25</td>
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<td>COVID(+) ≥ 18 years</td>
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Table 1. Number of patients hospitalized at the CDACAP subwards for adults and adolescent patients from 14 March until 5 June 2020. The table presents the number of hospitalized patients per day of month.

The COVID(+) ward employed 35 people: 24 nurses, 9 doctors and 2 cleaning staff employees. Nursing staff was working in a 24-h shift system. The contaminated section of the ward was attended by 2 nurses working in 4-hour shifts. Doctors worked in a rotational system in two teams, except for the head psychiatrist in charge of the ward. A single doctor was on-call duty from 3:05 p.m. to 7:30 a.m. The doctor on duty was accompanied by another doctor-in-training till 8.05 p.m.
Average daily PPE use was as follows: 9 sets of PPE consisting of a cap, goggles, face shield, FFP2 face mask, disposable surgical gown (tunic and trousers), barrier apron, foil apron, leg protection (2 pieces), and gloves (three pairs).

**Conclusions**

While establishing a uniform ward dedicated to COVID-19 patients, we were guided by common sense, literature sources and the experience of foreign psychiatric wards which delivered medical care to psychiatric patients with a positive COVID-19 status. In the initial preparatory phase of the reorganization, we received important support from the Department of Disaster and Emergency Medicine of the Jagiellonian University Medical College.

A number of conclusions can be drawn from the process of the CDACAP reorganization and its operation in the first phase of the COVID-19 pandemic. It is fair to say that the healthcare system in Poland – at least as far as psychiatric care is concerned – had not been prepared for a large-scale pandemic, requiring extensive redefinition of the operating principles of healthcare facilities. The obvious conclusion – although it does not fall under the competence of the authors – is that there is an urgency to establish plans and simulations on how to handle psychiatric patients in the event of a disaster. Considering the limited range of the pandemic in Poland, at least until mid-June 2020, it seems important to arrive at transregional arrangements concerning psychiatric care, with a focus on children and adolescent psychiatry as well as forensic psychiatry. The relatively long hospitalization of patients clearly indicates that such plans should specify which departments are to be transformed into uniform wards, and which non-uniform wards are to handle hospitalized non-infected patients or urgent cases. Furthermore, the decision establishing the UHK as a uniform hospital did not take into the account the role of the CDACAP as the Community Mental Health Center for Adults in the Krakow Srodmiescie District which embodies the principles of psychiatric reform. While preparing crisis plans, it is necessary to establish solutions which do not interfere with the continuity of care and hospitalization in regions encompassed by the care of Community Mental Health Centers.

Another important aspect is the initial lack of clearly defined criteria to determine which of the psychiatric patients diagnosed with SARS-CoV-2 are to be admitted to psychiatric wards or somatic wards. This concern was further amplified by reports of possible rapid health deterioration in COVID-19 patients [2]. Authorizing the Sanitary Inspector to decide which patient to hospitalize instead of leaving this decision to psychiatrists has also sparked controversy. It seems that in some cases, attempts were made to isolate mentally ill patients who did not in fact qualify for any specialist medical care. This may raise questions regarding the very objective of setting up uniform psychiatric wards dedicated to SARS-CoV-2 patients. There is a risk that, because of the stigma of mental illness, psychiatric patients may receive less than adequate somatic medical care, which is a persistent problem of contemporary psychiatric care
The minimum demand would be to set up uniform psychiatric wards for SARS-CoV-2 patients in multispecialty hospitals and to continue with the psychiatric care reform in order to eliminate ‘ghettos’ of psychiatric patients.

These conclusions were drawn at a stage when the pandemic is not over. The challenges we face today is to resume the clinical, teaching and research activities, and to be prepared to quickly return to the ‘uniform’ operation mode.

In consideration of the foregoing, we may safely conclude that the work of the CDACAP team and the Chair of Psychiatry, Jagiellonian University Medical College during the first stage of pandemic was satisfactory. Due to the commitment of our staff and active involvement in the implementation of changes necessary to be able to deliver care to patients in the safest possible manner, no cases of COVID-19 transmission to any staff member or other patients, including patients in quarantine, were reported at the CDACAP. Moreover, our experience proved useful for a team created at the Agency for Health Technology Assessment and Tariff System (AOTMiT): the first author of this article was a member of the panel of experts dedicated to staff protection.

We hope that the further stages of the pandemic and return to the regular mode of operation will be successfully managed.

In our everyday work, we prefer to perceive ourselves as healthcare professionals, but from time to time we feel our work becomes a service. Hopefully not more than once in a generation medical institutions are confronted with challenges similar to those faced by front-line military units. In such circumstances, the objectives must be fulfilled taking into account the risks to health and safety of workers. Outsourcing, contract work, fragmented employment may be appropriate for everyday functioning but prove inadequate when ‘emergency’ situations need to be handled. In healthcare, loyalty, sense of responsibility for other people and sometimes courage can be equally important as professionalism. This experience needs to be remembered long after the pandemic is over.

References


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