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## A new experience of online education under the COVID-19 pandemic for occupational therapy students in Palestine

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### ABSTRACT

There are circumstances and conditions that stimulate thinking and research in a scientific and practical way. These conditions fit into our reality under the COVID-19 pandemic. This experience related to myself and my field of work as an instructor of occupational therapy at the Arab American University in Palestine. There are students that I teach that have not been accustomed to distance learning through online courses using social media, especially zoom. This unfamiliar situation provided an opportunity for my students and myself to re-think the cases we deal with and the methods that we typically use, especially those people with spinal cord injuries. Here, I started creating an educational unit for students, in order to answer the questions posed by students. How can we provide an occupational therapy service under quarantine because of the COVID-19 pandemic? In what ways are patients suffering in the same way that we are suffering from the coronavirus pandemic? How can I adapt my teaching strategies methods to achieve the goals that I previously set for my students' education before the pandemic?

### KEYWORDS

Online education; COVID-19 pandemic; occupational therapy students; Palestine; AAUP

### Introduction

There are circumstances and conditions that stimulate thinking and research in a scientific and practical way. These conditions fit into our reality under the COVID-19 pandemic. This paper describes the experiences of the author as an instructor of occupational therapy at the Arab American University in Palestine during the 2020 pandemic. Students at the University have not been accustomed to distance learning through online courses. This unfamiliar situation provided a new opportunity for my students and myself to re-think the cases we deal with and the methods that we typically use. The example used in this paper is working with people with spinal cord injuries.

The paper describes an online educational unit for students, created to answer questions posed by students and me. How can we provide an occupational therapy service under quarantine because of the COVID-19 pandemic? Are patients suffering in the same way that we are suffering from the coronavirus pandemic? How can I adapt my teaching methods to achieve the goals that I previously set for my students' education before the pandemic?

### Background

In the Palestinian territories, there are only two universities offering a Bachelor's degree in occupational therapy that is recognised by the World Federation of

Occupational Therapists (WFOT, 2020). These two universities have adopted the American curriculum for occupational therapy education, including the general style and pattern. Students of these two universities are distinguished for their cultural and religious diversity.

Life in the Palestinian territories is dependent on being able to obtain basic services, including health care. Since health care in the Palestinian territories is limited to the cities, and most of the residents of the Palestinian territories live in villages, this requires transportation from villages to cities. Problems in movement and the use of transportation come from checkpoints, manned by Israeli soldiers, that make it impossible to obtain medical care quickly. Many people resort to searching for other countries, such as Jordan and Egypt, that can provide health care appropriate for their conditions. Another issue is poverty and the low standard of living that mean many people cannot afford appropriate health care. These factors contribute to the tension between Israel and the Palestinian territories (McNeely et al., 2018).

### *Palestinian perception of disabilities*

In Palestinian culture, the person with spinal cord injury is viewed as a person who needs special care. Families share in the tasks of meeting patients' needs in the areas of personal hygiene, nutrition, feeding and health care. It is accepted, in Middle

Eastern societies, including Palestine, that if the family has an injured person who needs personal care the family will undertake this mission because of cultural expectations and religious motives. For example, the mother cooks the food while the brother or sister feeds the injured person; and, if personal care is needed, those closest to him, such as the spouse, will carry it out. In addition, the Palestinian culture is very sociable so the patient can expect visits from many people in the community. These social visits are designed to be supportive but may be a negative reminder to the patient that he can no longer manage his previous life.

### Reason for new practice

The new course was developed because all education at the Arab American University at Palestine (AAUP) was converted to distance education when customary methods had to be abandoned due to the COVID-19 pandemic. The worldwide coronavirus pandemic was seen as an opportunity to design an educational unit for occupational therapy students that would enhance their abilities to comprehend the experience of social isolation that comes when adjusting and adapting to the life changes of having paralysis. I felt that since the students were currently experiencing new social confinements, dictated by the serious public health threat, they would be open to this learning. My hopes were that the students might develop a sense of empathy for their patients.

The course was designed around evidence from research that has examined individuals with spinal cord injuries, the problems they face in their lives, and the methods used by occupational therapists to help them overcome the obstacles that stand before them. This evidence, which comes from both qualitative and quantitative studies, was provided to all students in a handout that described the role of occupational therapy (Nas et al., 2015).

### The new course

The course was developed for 36 students who were divided into groups, each consisting of six to eight students. These groups are the future occupational therapists who will provide occupational therapy service to the community in the near future after receiving their bachelor's degree in Occupational Therapy soon. For telephone communications, all 36 students plus the instructor formed one special group on WhatsApp, a free online phone service. At times, students had to tolerate weak internet access or none, so communication by telephone helped, especially when the internet was down.

### Course goals

In designing the course, the Person- Environment-Occupation Performance model (PEOP) was used to develop the teaching activity (Law et al., 1996). The first perspective used was the process through which occupational therapists work as they take into account the patient's goals when planning interventions that suit the person's condition, physical capabilities, and financial capabilities in order to provide the most relevant solutions. The second perspective was to enhance students' ability to perceive the family environment that surrounds the patient, as it is impacted by the general situation outside the home for Palestinians under quarantine during the pandemic, and its effect in compounding the psychological and physical components of functioning. The third perspective was concerned with raising the patient's level of required occupational performance by maximising existing capabilities.

The short-term goals of the course were:

- (1) To improve student knowledge about spinal cord injury (SCI)
- (2) To find commonalities between students' social isolation during the pandemic and the everyday social isolation experienced by people with spinal cord injury
- (3) To identify differences between the perspectives of students, who believe that the pandemic will end and that things will resort to pre-pandemic days, and the perspective of someone who experiences social isolation that they fear might become their normal experience forever.

### Course structure

The course was developed in three phases. The first phase enabled students to increase their awareness of the general problems related to the patient, to have a conversation about which problems were most important to the patient and to provide information that allowed students to work with the patient from two basic perspectives: the physical performance prospective and the environmental impact on the patient's social condition.

The second phase was to find practical solutions that served the patient and focused on achieving the largest number of goals that were important for the patient, while also taking into account the patient's capabilities and psychological state, and the general conditions under the coronavirus pandemic.

The final phase was for the students to develop the ability to generalise experiences and to benefit from their experiences in their future lives as practicing occupational therapists, by identifying the strengths and weaknesses of the work of each group.

My intention was to empower the students to solve problems in the case scenarios and to find appropriate solutions. There were five factors for me to consider. First was to ensure that all students participated in the large group discussion and gave their opinions for the benefit of all. Second, was to ensure that the discussion remained on the topic of the scenario and did not deviate from that topic; I made direct observations and gave general guidance to students to keep them focused. The third factor was to stimulate discussion that generated ideas to help solve the case scenario problems. The fourth factor was to prepare questions that related to the scenarios to challenge students' creativity. The final factor was to propose ideas, correct misinformation and state my reasons for developing these scenarios (Finn & Schrod, 2016).

### Course delivery

A different scenario was presented to each group of students. The information was designed for students to comprehend what it means to have a spinal cord injury, along with some details related to medical history, age, place of residence, occupational history, and the medical treatments the patient uses at home. The scenarios included all types of spinal injuries, according to the classification of the American Spinal Injury Association (ASIA), and the level of injury varied from the top to the bottom of the spine.

As described above, the course was designed for online delivery, via Zoom and WhatsApp, in three phases: orientation, exploration and presentation.

### Orientation phase

- (1) The instructor explained the goals of the course, the criteria for passing, and the course outline. Each group was assigned a case scenario created to promote discussion and direct interaction. The scenarios described diverse degrees of spinal cord injury. One student from each group was selected as team leader.
- (2) Students were given lectures via Zoom and guided to relevant references and websites to collect the information they needed for solving the problems presented in each scenario.

### Exploration phase

There was continuous communication between the students and instructor as they worked on the scenarios. The instructor provided general guidance that focused on the subject of the scenario for each group.

### Presentation phase

At the end of the activity, each group presented their cases to the large group, providing answers to the questions they had been given, detailing the information

collected and addressing the issues identified. Questions were asked and suggestions made. The instructor summarised the solutions and offered a professional opinion. Finally, the instructor explored the possibility of generalising the work to different medical conditions, not only SCI.

An agreement was reached, between the students and myself, about how to maintain contact, follow up with each other and continue to discuss and clarify ideas. Several open meetings were held via Zoom at agreed times. The small groups of students communicated in the same way, in order to think collectively, share ideas and opinions and propose solutions to the problems they identified in their scenarios.

### The student experience

The student experience of the course is presented under the headings of the actions they took: information gathering, problem formulation and intervention planning. Examples are given of some of the intervention plans produced by the small groups.

### Information gathering

In each scenario, there were several obstacles for the students to consider and overcome. The first problem, as one of the groups mentioned, was that information in medical files at the center where patients were being treated prior to the pandemic was not available in full. A second problem was that students were unable to assess patients face-to-face during the pandemic.

One group suggested that a way of dealing with not being able to communicate directly with the patient, to obtain basic information for planning an appropriate intervention, was to communicate with the family. Other groups proposed several methods for communicating with patients, including using the person's home telephone or a smart phone with both voice and picture communication. They also identified free programmes, such as WhatsApp and Zoom, that can be used either on a mobile phone or a computer, depending on what patients could access.

### Problem formulation

The groups used a number of assessment tools, such as The Canadian Occupational Performance Measure (COPM). This is to know the patient's priorities in terms of self-care, productivity and entertainment (Berardi et al., 2019). Also, The Disabilities of the Arm, Shoulder and Hand (DASH) to determine the patient's ability to do activities that use the upper limbs (Gummeson et al., 2006). Lastly, The Functional Independence Measure (FIM) to measure the functional degree that the patient performs at the functional level (Cohen et al., 2012). In addition, non-standard

evaluation methods, which included personal interviews and a general survey via the existing image and available through communication methods. These methods were chosen to find out what was important to patients, their weaknesses and needs and the problems they experienced in daily life during the pandemic.

Based on these assessment methods, students anticipated what they might find out about the patients, including physical, psychological and social issues. Physical issues were identified as depending on the level of SCI. Psychological issues included symptoms that patients may have experienced due both to the exceptional circumstances and to pressures arising because the necessary treatment from the occupational therapist could not be obtained. These factors may have intensified feelings of helplessness arising from inability to exercise their daily lives in a safe and secure manner. Students suggested that social issues were related to patients' need and desire for social contact.

### **Intervention planning**

After reviewing the available information and carrying out assessments, student groups generated goals that could be achieved with patients in the context of the pandemic. Examples included modifying the living environment with considerations of safety and access and working to increase patients' levels of performance of their daily activities, while considering the patient's psychological and physical capabilities within the home environment.

Treatment plans were based on the patients' desires and needs, in order to provide them with assistance appropriate to their circumstances. It had been made clear to the groups that the treatment approach should be led by patients and its delivery should involve continued and constant communication with them.

### **Student examples**

One group of students dealt with a case involving a person with complete C1–C7 spinal cord injury. Among the many problems experienced were communication issues. The group suggested several practical solutions, such as provision of assistance for communicating needs through a head pointer and an image board of requests such as: 'I want to drink water', 'I want to eat', and 'I want to sleep'. This idea was presented to the patient's caregiver through videos from the internet.

Another group dealt with a scenario involving a person with an incomplete T1–T12 spinal cord injury. One of the problems in this case was lack of bowel and bladder control. The group suggested using a pictorial method to train the caregiver(s) in how to

undress the patients, clean and empty a catheter and change incontinence pads.

A third group dealt with the case of a person who had an incomplete L1–L5 spinal cord injury. The students considered how to teach movement around the home using a wheelchair, movement from chair to bed, and transferring from a wheelchair to a toilet seat. They suggested several possible solutions, including providing activities to strengthen the upper limbs in order to use the wheelchair, and working to familiarise the patient with its components and learn to transfer to and from the wheelchair. Zoom sessions were used to train the patient and the caregiver, in order to give appropriate and direct instructions to both.

The group of students who had a scenario involving a person with an incomplete S1–S5 scoliosis level, decided to work with the general weakness in the lower part of the body. Their suggestions incorporated resources already available to the patient, such as the wheelchair and carpets, using them to strengthen muscles and taking advantage of the patient's remaining abilities. In addition, students suggested encouraging the patient to watch fitness and active training programmes in order to raise the level of activity and morale by doing sports and listening to music during the activity.

### **Implications and impact**

The global pandemic was the first experience of this kind for occupational therapy students and for everyone else in the world. Group members had to think outside the box because the experience was full of different challenges. For example, it was difficult for students to identify possible ways to collect information and analyze it within an occupational therapy framework, with quarantine restrictions imposed simultaneously on students and patients. Moreover, there was no published evidence to help students make appropriate and logical decisions in these circumstances.

This lack of resources appropriate to the reality of the pandemic was overcome by referring to the fundamental basics of occupational therapy, and through collective thinking about problems and scenarios. This learning method became a catalyst for students in finding creative solutions. As they had to face their own issues under the public health regulations, the obstacles they met daily helped them to imagine what it was like for patients dealing with the same conditions as well as with SCI.

The educational approach described in this paper entails a geographic and demographic convergence at work and at home, and promotes cooperation in solving the problems that face us in these exceptional circumstances (Amadi & Oriji, 2017). Students need to be able to use modern technology to develop

approaches that suit the requirements of different circumstances and conditions. Faculty must adopt organisational procedures that meet the requirements of online education: continuous training is required in the use of technology and skills in online education.

The success of the experimental course depended on multiple factors, the most important being the teacher's role in coordination and advance planning for distance education. Second, the teacher had to ensure continuous cooperation between students and faculty to maintain the agreed pace and educational methods. Third, faculty needed to be willing to stimulate students through the information they were given and to fuel brainstorming within small groups to achieve the goals of the activity. This pedagogic approach helped students learn to base their decisions on research evidence and to develop their analytical skills. Fourth, the development of students' ability to generalise their experience to different conditions was related to their having had a successful experience, whereby they learned from their mistakes and from the obstacles faced while carrying out this activity. Finally, if online learning methods are adopted as part of occupational therapy education in the Middle East, the description of this experience may help to expand faculty thinking about education.

## Conclusion

This paper described the experiences of one educator, working on the occupational therapy programme at a Palestinian university, in devising a response to the demand for distance education arising from the worldwide pandemic of 2020. All medical and allied health professionals have been affected by the pandemic on a personal level because the world has been affected everywhere. Occupational therapy programmes have not been spared, and must change to provide their public health services. The traditional delivery of services through direct physical contact must change. Moreover, occupational therapy specialists must try their best to understand the feelings of their patients and realise that their problems are part of the nature of interactive personalities, our

profession, and the sobering new restrictions on our world society.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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