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Continuing Professional Development: Provision and Adaptation of Clinical Education within the Primary Health Care Setting in Qatar during the COVID-19 Pandemic.

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Abstract:

Background: The discovery of the COVID-19 virus and the subsequent rapid pandemic has had a significant impact not only on public health but also on clinical education. Continuing Professional Development (CPD) within the Primary Health Care Corporation (PHCC) had to be adapted, especially regarding the methods of delivery. Social distancing was a requirement from the Public Health directives, impacting the practicalities of face-to-face didactic and simulated clinical educational sessions. Given the challenges that the pandemic generated across the globe in terms of education, new ways of offering education were required as a matter of urgency. This evaluative study was undertaken to describe the PHCC Workforce Training and Development's (WTD) response to achieve maximum efficacy of our delivered CPD.

Methods: The purpose of this descriptive study was to explore the interventions utilized by the WTD directorate within PHCC. The evaluation and comparison of teaching and learning interventions (in terms of subject matter and delivery method) were described. It was based upon a three-month period from pre-COVID-19 (2019) and mid-COVID19 (2020). Staff who attend CPD programs within PHCC included: Physicians, Nurses, Dentists, and allied health care professionals.

Results: During a three-month period from the pre-COVID-19 year (2019), 68 CPD courses were delivered mainly face-to-face, and individual accreditation varied from 1 to 30.25 educational accreditation points. During the mid-COVID year (2020), 38 CPD courses were delivered as online webinars and individual accreditation varied from 1 to 3.75 educational accreditation points. It was found that a greater number of participants were able to undertake web-based learning with individual sessions than face-to-face ones. Microsoft Teams was successfully utilized. The remote online host lecturer has facilitated significant interaction with most participants. The lecturers received the Learning Management System (LMS) training prior to the Pandemic; thus, we have experienced an easier integration of ongoing online clinical education during these challenging times.

Conclusion: It was acknowledged that the WTD directorate at PHCC was in a fortunate position, due to the integration of the online LMS training prior to the pandemic. Both the clinical and educational staff were able to implement and deliver this method effectively at short notice, with similar academic accredited standards and quality. It is expected that following the pandemic, a higher uptake, demand, and motivation for innovative learning approaches will occur. It is thought that the use of the blended learning approach will dramatically increase.

Keywords: Continuing Professional Development; Clinical Education; Pandemic; Covid-19; Innovative learning; pedagogy, eLearning, Virtual Learning, Webinars, education technology.

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INTRODUCTION

Coronavirus disease 2019 (COVID-19) is classified as a novel coronavirus identified in Wuhan, Hebei Province, China. Initially, it was pneumonia of unknown cause, first reported to the World Health Organization Office in China on December 31, 2019. By the end of January 2020 WHO director declared the outbreak as a “Public Health Emergency” and advised early detection, isolation, tracing contacts, and social distancing to reduce the spread of the disease. In February 2020, WHO announced a name for the new coronavirus disease: COVID-19. On March 11th, 2020, the WHO announced that the virus COVID-19 was so widespread that it was deemed a Pandemic (WHO, 2020).

It was recognized that transmission from human to human was possible. It is also possible for infected patients to be asymptomatic but can infect others, making the risk of transmission significant. It is thought that the incubation period is between 3-14 days, with some patients being totally asymptomatic. Individuals with a pre-existing condition, chronic disease, and immunosuppression are most susceptible to more significant effects of the virus. They tend to be the most adversely affected by the virus’s effects leading to death (Salameh et al. 2020). The occupational and public hazards associated with the exposure to clinical staff who potentially may transmit COVID-19 to their patients are also significant. As a result, group gathering was limited within Qatar. This included the delivery of clinical education (Alandijany et al. 2020). Patients who demonstrate symptoms related to the COVID-19 virus are advised to seek medical attention and are tested for the virus. Self-isolation and hospital isolation are the main standard management for COVID-19 patients; however, patients with significant symptoms such as pneumonia have been ventilated and cared for within Intensive Care Units (WHO, 2020).

All organizations have been encouraged, where possible, to reduce physical contact with others as part of their day-to-day activities. It is thought that this could be achieved by utilizing virtual or electronic means of communication and working (Mediasite-mx, 2020).

Many educational institutes did have health professions’ educational plans running for years as on-site (face-to-face) training as the main way of delivering their continuous professional development activities with virtual educational activities in a few numbers of activities, if any. Many healthcare educational institutes did not have a backup plan in place in case of emergencies such as disasters and pandemics. COVID-

19 pandemic did cause an unexpected huge disruption in medical education and healthcare systems globally. The initial knowledge about Covid-19 did show that it can rapidly spread in closed spaces when social distancing and other precautionary measures are not in place. The disease can be very severe and life-threatening. So, all recommendations favored holding all activities that require people to be available together in closed spaces, including educational activities at all levels. Health care educators did face a big challenge as they needed to put on hold all the plans that might negatively impact the level of healthcare service being provided. There was also an emerging need for training related to the pandemic.

This evaluative study was undertaken to detail the PHCC Workforce Training and Development’s response to the interventions and recommendations to achieve maximum efficacy of our continuing professional development delivery.

The first case of COVID-19 in Qatar was reported on the 29th of February 2020; however, the recovery rate and relatively low death is noteworthy (Qatar, Ministry of Public Health, 2020)

There are generic core precautions that have been implemented following the Ministry of Public Health suggestions; these include: Physical Distancing, Personal Protective Equipment, Hygiene, Early Detection, the “Ehteraz” App, and the awareness of Vulnerable Groups (WHO, 2020).

Guidelines are in place associated with physical or social distancing are determined by the Ministry of Public Health. This also includes public areas. The applicability within the directives lies clearly within the Workforce Training and Development Directive (WTD) and the approaches to delivering clinical education activities for our learners.

Immediate action was required to mitigate these public and occupational health strategies, and alternative educational delivery methods were required, which did not require physical/educational gatherings.

The “Ehteraz” App, which is downloaded within a mobile telephone, enables personalized tracking, monitoring, and tracing linked to the Qatar Identification and is thought to be able to contain new outbreaks. It identifies virus-free (Green screen), suspected infection or exposed/tested pending results (Gray), quarantined (Yellow), and confirmed infected (red). Healthcare manages the app status within Qatar. The app is checked by security staff and others, and only individuals who have a “green screen” status (indicating

Good Health) are enabled to enter public areas (such as shops) (Qatar, Carnegie Mellon University, 2020).

WTD acts as the coordinating and facilitating department for CPD for staff working at PHCC. An annual CPD plan/ calendar is created and implemented following an intensive analysis of data from various sources that include a widely captured online needs assessment tool. This informs the annual CPD plan. These CPD courses are facilitated in various methods, including Virtual /eLearning, Centrally, and Health Center-based delivery. The majority of CPD is provided by education staff within the directorate; however, expertise from external sources is utilized to meet the developmental requirements.

It was recommended that priority for staff development in issues surrounding COVID-19. This has significance in that social distancing impact the method of delivery and pedagogical approach. It was therefore important that education providers are cognizant of issues to enable safe delivery and reduce transmission.

The Ministry of Public Health (Qatar) established residential accommodation for patients meeting quarantine standards. Travelers returning to Qatar must quarantine within designated accommodation for two weeks following arrival. In addition to reducing external speakers / clinical experts' willingness to travel, this has been a barrier to our educational external partners' ability to collaborate with us.

Incoming air travel and related public transport were suspended within Qatar from March 18th with the exemption of air cargo and transit flights. Like quarantine measures, this has been a significant barrier to ongoing clinical education activities with external experts that understandably have had to cease for the time being.

Schools and Universities within Qatar were suspended on 10th March 2020. This clearly had a significant impact within the WTD Department at the PHCC and the Continuing Professional Education activities for clinical education that we provide to our workforce. Our educational and developmental content delivery method had to immediately become an area of importance and development for the educational staff within the department.

METHODS

This is a descriptive study exploring the interventions utilized within PHCC Workforce Training and Development directorate within PHCC. This was done by evaluating and comparing the organization's

teaching and learning interventions (in terms of subject matter and delivery method was undertaken). All relevant data are available at the training department, and permissions were taken to access and analyze the data.

The Question

How effective were the measures utilized by your organization during the first few months after announcing the Covid-19 pandemic?

Staff Groups

Staff who attend CPD Programs within PHCC are normally based within one of the 27 health centers across Qatar. These staffs include: Physicians, Nurses, Maternity and Newborn Councilors, Radiologists, Sonographers, Radiographers, Dentists, Dental Assistants, Physiotherapists, Laboratory staff.

Training and Development Adaptations

Within the educational setting, it is highly recommended that the Virtual Learning methodology and technological approaches to the delivery be utilized as a safety and occupational health initiative. Virtual and eLearning was the focus of activity within the department, emphasizing our delivery methods. We had a significant advantage in adopting a learning management system (LMS) and were in the initial stages of building an eLearning and digital structure within the department before COVID-19. This was advantageous to our directorate as the workforce and education staff had awareness and had received orientation and training on the practicalities of an innovative way of learning.

As a result of the discontinuation of face-to-face staff development activities, education staff within the WTD Directorate at PHCC have had to consider approaching their staff development activities very differently. The academic plan for staff development and training existed. A strategy was required to ensure that the Continuing Professional Development (CPD) activity continued innovative and fit-for-purpose. The e-learning team within the department plays a key role in supporting the current Learning Management System, which is currently used within the WTD Directorate. It supports the delivery, resources, and administrative aspects of some educational delivery.

Microsoft Team has been successfully utilized whereby the host lecturer on a remote online basis has facilitated significant interaction. The lecture or

“webinar” is generally conducted live or synchronously at a pre-specified time, and the host speaker provides the webinar with the potential for interaction with the audience. The learner downloads the Microsoft team App in advance and simply logs into the specified ‘meeting area’ at the specified time. Alternatively, the webinar can be recorded and viewed asynchronously. Although the interactive nature of asynchronous delivery has this downfall, there are still benefits and measurable learning outcomes. Alternatively, some speakers/educators prefer to utilize host software called “Zoom.” Again, we have had success in delivering educational and CPD activities; similar to Microsoft Teams, this software enables a level of interactivity whilst delivering a presentation or discussion point.

Clinical Requirements

Clearly, there is currently a significant restriction in place regarding how we would normally be maintaining the currency of our clinical education CPD activities (Best-Practice, BMJ, 2020). As an educational and training department, we have had to think quite differently about how technology-enhanced learning has played a principal role in delivering and facilitating learning that is meaningful and fit for purpose to meet our clinical service requirements. An example of this is the development of online resuscitation training/heart code training as a collaborative approach to with Primary care and an International Training Center to train health care professionals on Basic Life Support during the COVID-19 pandemic and with the intention that this will be an ongoing initiative that will have a flexible approach to be available at the learner’s/ service convenience. The plan for the future is that this course will include online simulation videos followed by a competency-assessed classroom-based session on CPR and the use of AED for a short duration of face-to-face training compared to the usual courses. At present, health care practitioners and utilizing the online platform intend that physicians will utilize a similar model for ACLS training.

Staff Wellness

The COVID-19 Pandemic has a significant impact on staff wellbeing and mental health for various reasons, not only occupational stress but personal stress at being socially isolated, all of which should not be underestimated. Health care managers are advised to be cognizant of the stress that they and their staff may

be experiencing during these challenging times (WHO, 2020). As an organization, PHCC has been proactive in developing and providing occupational support, counseling service, and the provision of short courses to support and assist staff in coping with the current crisis whilst still being able to be service providers within the organization.

RESULTS

Attendance and accreditation points

Given the challenges that this created across the globe to educational delivery, educational provision responses were required as a matter of urgency. With the methodology having to be adapted, there was an opportunity to make an evaluative comparison based upon a three-month period from pre-COVID-19 (2019) where 31 CPD courses were delivered, out of which 4 were unaccredited courses. Both internal and external providers were included. Individual CPD courses were often offered on more than one occasion to participants (68 sessions delivered for this period). Individual accreditation (based upon teaching hours) varied from 1 to 30.25 educational accreditation points. The Mid COVID (2020) results. Detail the courses that were delivered during the Pandemic period. Of the 20 courses offered during this period, 2 courses were uncredited. Individual CPD courses were often offered on more than one occasion (38 sessions delivered) to participants and individual accreditation (based upon teaching hours) varied from 1 to 3.75 educational accreditation points.

DISCUSSION

The outcomes and effects of transforming training and development approaches to an unprecedented event such as this pandemic and the regulations that inform the circumstances are significant. In addition to the existing CPD annual plan, a clear reactive and prophylactic requirement was required to ensure staff’s readiness for the clinical implications which the COVID-19 pandemic generated. The clinical education team supported the delivery of COVID-19 specific CPD events, which included: COVID-19: “My Experience as a Patient & Expert”; Personal Protective Equipment Training; A Step Towards Safety; Stay Home, Stay Active, Stay Healthy - Health provider self-care during COVID-19 Pandemic; Leadership, Resilience and the COVID-19 Outbreak; Managing Diabetes During COVID 19 Pandemic; “UpToDate” COVID-19 Resources; Positive

Attitudes Toward Life Challenges During COVID-19 Crisis; Global Roles of the Pharmacist during the COVID-19 Pandemic. As a directorate, we were in a position whereby the transformation came with challenges and benefits as detailed below:

Challenges

The urgency for the development of teaching and learning materials

The outbreak of COVID -19 was an unprecedented and clearly unplanned event that has had a significant impact upon the delivery and development of teaching and learning materials due to the discontinuation of face-to-face classroom-based activity. There was limited turnaround time to consider the development of virtual learning materials and ensure quality and achievable learning. It is thought that this may impact our learners from a psychological wellbeing perspective due to the urgent nature of “Emergency Remote Teaching Methods” (Psychology-Today, 2020).

Effect of prohibited physical/social gatherings

Traditionally the majority of clinical education was delivered utilizing a classroom-based approach to didactic delivery. This was clearly restricted, and some courses were inevitably unable to be transferred over to the virtual setting within the time period. Examples include health center-based Interprofessional Educational activities (grounded in staff working together in groups) and probably more obviously, a simulated clinical practice whereby key clinical skills are being assessed (e.g., Wound Care Management, IUD Insertion training).

Delivery Schedule

Consideration has been given to the scheduling of virtual learning and synchronous education delivery to enable valuable learning. Expecting a learner to attend virtually for 6 hours online is an unreal expectation, one of which is a challenge for the discipline of the learner and the ability for the educator to manage the delivery timeline.

Benefits

Technological availability

Technological availability and resources in the workforce, technological equipment, and technical capability expectation is a significant challenge that is a potential risk (Jurnal-Sinestesia, 2020). The desire is to deliver CPD content by a different modality (i.e., technology-based/e-learning) and achieve the learning

outcomes in a student-centered approach considering the changes resulting in the necessity of Emergency Remote Teaching. A significant amount of urgency was generated to ensure that face-to-face teaching was no longer possible due to rules of social distancing, but the requirement to ensure CPD activities did not stop due to professional and regulatory reasons. The WTD department mitigated this by being in a position of e-learning preparedness and, as a result, had an infrastructure (including an established eLearning team, Learning Management System, Learning Management Coordinators within the clinical areas to ensure problem-solving and assistance with challenges, CPD coordinators and Clinical Nurse and Medical Coordinators who support the implementation and successful staff training) this was functioning before the COVID-19 and was a significant benefit to the resolution to a potential problem.

International Speakers

Given the current global restrictive situation, we have engaged with International clinical experts with ease and host their clinical education delivery online. Although traveling personally to the Middle East can sometimes be preferable, this platform has facilitated an easy approach to a challenging situation. It has evaluation well with facilitators and learners.

Technological Capability

The transition of skills required to develop creative and innovative methods is an essential component in the generation of virtual learning materials. The technological capability of staff (internal staff, facilitators, and participating learners) is a key area where competency and technological literacy (Williamson et al. 2020). An awareness of being a “digital native” is a significant factor and an area of consideration for additional support to enable clinical education.

E-Learning and IT support teams play an essential part in the enhancement of the eLearning competency of staff. Our support team enabled the success of the eLearning materials and staff capability.

Ease of Integration

As our staff and learners were aware of our online learning platform, with the majority either using it or having received the training for our Learning Management System before the Pandemic, we have experienced the ease of integration and appreciation for the ongoing provision of clinical education during these

challenging times. This mirrors a significant number of evaluative findings currently being observed across the globe (Jurnal-Sinestesia, 2020).

Increased Innovative Approaches

Current thoughts within higher education (Higher-Ed, Inside, 2020). state that following the pandemic and a level of recovery is achieved, a higher uptake, demand, and motivation for Innovative Learning approaches will occur. It is thought that areas that will apparently include blended learning dramatically increase.

Efficiency and Effectiveness

Within the periods (3 months) that were evaluated, it was found that a greater number of participants were able to undertake web-based learning within individual sessions than the face-to-face ones. Partly thought to be due to hosting logistics (e.g., such as room capacity). This proved to have been an efficient and beneficial approach to maximize the number of learners. Although the efforts are made within the developmental stages of the CPD activity, findings demonstrate that this is not an uncommon or recent finding of efficacy and cost efficiencies within this mode of delivery (Mediasite-mx 2020).

CONCLUSION

The requirement of a differing mode of delivery and approach to educational design, although initially time-consuming and resource-intensive within the initial developmental stages, can prove to be that of a highly effective method of pedagogy. The resources of the developed eLearning materials can be reused and will prove to be a cost-effective and flexible mode of delivery.

It should be acknowledged that the Workforce Training and Development directorate at Primary Health Care was in a fortunate position due to the integration of the e-learning team and the online learning management system that both the clinical and educational staff were able to develop, implement and deliver this method effectively at short notice during difficult clinical times which required speedy online delivered educational input, but with the same robust academic accredited standards and quality.

Most educational organizations adopt a didactic/face-to-face delivery. Clearly, they face challenges within the pandemic's social distance period, which may have led to the postponing of CPD activities to the detriment of the learner, service, and patient group. Imparting

findings of experiences and the practicalities of implementing numerous online platforms and shared implementation strategy provides opportunities for other CPD providers that are likely to have a positive outcome collectively.

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