Original Article

Practicing medicine in the COVID-19 Pandemic

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Abstract: Frontline clinicians have become society's line of defence against a raging pandemic. Their stories reflect the uncertainty faced on a daily basis and are witness to their courageous acts first-hand. While research to understand the virus and curtail the disease is readily available, there is sparse information on the emotional hardship medical practitioners have to face. The aim of this commentary is to provide a better understanding of the experiences of doctors practicing medicine during the COVID-19 pandemic, with the focus on Malta and on Maltese doctors currently working abroad. Messages were solicited from those who wished to share their experiences, and were posted, after the author's permission, on a COVID-19 website. On content analysis of these messages, four major themes emerged: initial reaction, hospital's response to the COVID-19 pandemic, the new normal, and personal adjustments. These themes provide rich data on how medical practitioners coped during adversity. It portrays their resilience as they came to terms with a rapidly changing health care system and exemplifies the adjustments they made to fall into a new normal. Indeed, their monumental efforts need to be lauded and their outstanding contributions recognised.

Key words: COVID-19, Health humanities, Medical humanities, Pandemic, Physician narratives, Personal adjustments, Resilience

Introduction

The novel coronavirus, COVID-19, swept through the world at a staggering pace leaving devastation and chaos in its wake. Health practitioners had to adapt to significant changes in how they provided care amid ongoing uncertainty – uncertainty not just about the pandemic, but also how the pandemic would shape the long-term future of healthcare. Frontline clinicians have become the face of this pandemic. They currently, seemingly, represent the best of humanity, setting aside their apprehensions to treat critically ill patients.

A plethora of research to understand the virus and curtail the disease is readily available, however, the same cannot be said for the emotional hardship medical practitioners have faced from the beginning of the pandemic up

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till now. The aim of this commentary is to provide a better understanding of the experiences of doctors practicing medicine during the COVID-19 pandemic, with a focus on Malta and on Maltese doctors currently working abroad.

Methods

Data was collected from the Maltese website COVID-19: As It Happens.[1] The website was created and launched in March 2020 by one of this paper's authors (VG) in order to disseminate accurate and up-to-date general information and provide the latest scientific developments vis-à-vis the COVID-19 pandemic. It provides brief, accurate and pertinent information on COVID-19 and serves to dispel misconceptions. The software used was freeware (Mobirise, a "Drag and drop website builder" which requires no coding knowledge - https://mobirise.com/).

Maltese doctors, who were based abroad, were requested to recount their experiences with COVID-19 with a view to describing their journey, and also to convey words of encouragement and hope to the Maltese public. The messages were uploaded on the website and they form the basis of this paper. Permission was sought from each doctor to analyse their messages for this paper. Qualitative content analysis was performed by the authors without preconceived codes.

Results and Discussion

Eleven messages were posted on the website, of which nine were included. Two were excluded because they did not directly relate to personal feelings and adjustments. On content analysis, four major themes emerged: an initial reaction, the hospital's response to the COVID-19 pandemic, the new normal, and personal adjustments. The following sections use exemplary quotes from the messages to elaborate on the themes.

Initial Reaction

The outbreak created a unique and unprecedented scenario for most healthcare workers and their families. Pervasive throughout their descriptions of their lived experiences of battling COVID-19 was a sense of responsibility to alleviate patients' suffering and a need to make concerted efforts to safeguard the work environment.

Initially, COVID-19 seemed a distant threat and medical practitioners were not overly worried about the virus and the havoc it might wreak. Dr Claudia Chetcuti Ganado, a neonatology specialist, demarcates the pre-COVID-19 era from the following months which ensued:

"I remember my last Christmas on the Unit when we happily mingled as a NICU family in the staff room celebrating our Christmas as best as we could by sharing food brought by the different members of the team. We were hearing about COVID-19 in Wuhan but this seemed like a distant threat. We thought it was likely to be contained. Little did we know how it would change our lives a few months down the line."[2]

Dr Mireille Formosa, a general paediatrician at the Lancaster General Infirmary, expressed similar sentiments:

"I first heard about COVID-19 in December 2019 from the news. I have to admit that I was not worried at this stage and initially thought it was another infectious condition that the media was over publicizing. At that point all the COVID-19 cases where in China. It felt very far from the UK. Then in the New Year, things changed and by the end of January 2020, there were the first cases in the UK. Again I was not unduly concerned. At this stage, the people affected were the ones that had recently been abroad to particular countries. Everyone knows what happened after this. The number of cases increased exponentially and then we had a pandemic on our hands."[3]

Dr Shirley Mulvaney, a paediatric emergency doctor, on hearing about the emergence of

the COVID-19 virus thought that it:

"...was just going to be another scare…it took me back to when I was still living in Malta, years ago, when there were rumours of SARS, the Tamiflu® craze, and the raiding of the supermarkets…but back then it never came" [3]; but she soon realised that "this is different. This has changed lives…this has changed my life."[4]

Along came the realisation and shock that a microscopic particle could grind the world to a halt. Prof Ludvic Zrinzo, a Maltese neurosurgeon of international renown due to pioneering work in deep brain stimulation in Parkinson's disease, aptly described the situation:

"A tiny particle, less than a millionth of a mm across, disrupted our world. Most of the neurosurgical operations I perform are "elective". They can wait. So in the current COVID-19 pandemic, patients with Parkinson's disease, tremor, facial pain and facial spasms have to put up with their symptoms as best they can until a degree of normality can resume."[5]

Most medical practitioners realised the gravity of the situation straightaway, significantly when countries started to report cases imported from abroad. Mr. Joe Aquilina, Consultant Obstetrician and Gynaecologist at St. Bartholomew's and Royal London Hospitals writes:

"COVID has affected everyone. From my end I can remember the day very clearly when I knew things were going to be very different. On Monday 16th March I had just read on the Times of Malta that anyone arriving in Malta from abroad would have to quarantine for 14 days. I normally visit for 3 days to run the clinic and return to London and I knew I could not come over to do my clinic on 21st March. As it happened the airport closed on 22nd March anyway."[6]

Concerns about work disruption and issues which surrounded hospital closures for routine admissions were also voiced by Prof Joseph DeGiovanni, who is Consultant Paediatric Cardiologist in the UK, and by Dr Edward J. Despott, clinical head of endoscopy at the Royal Free Hospital.

"We are coping with lockdown but the hospital closure for "routine" admissions is causing big issues with waiting lists and delayed treatment. I am sure they can ease on this by utilising the Nightingale Hospitals to a higher capacity to open up other beds."[7]

"All elective work had to cease and our busy interventional endoscopy unit, had to shift gear to perform only life-saving emergency procedures, mostly in patients affected by Covid-19. This of course must be done while being fully-clad in personal protective equipment (PPE) – and this, although potentially lifesaving, adds layers to the already surreal and saddening experience."[8]

Hospitals' Responses to the COVID-19 pandemic

The COVID-19 pandemic brought to the fore the need for hospitals to efficiently and effectively respond to protect the nation. Response to a pandemic requires a multi-disciplinary team effort in order to ensure effective implementation of preparatory measures, followed by continuous diligent efforts to ensure modifications in plans as needed while addressing new demands as they arise.[9] The messages delivered by the medical practitioners are testimony to this and show a collective response.

"Since then we have had major changes in the way we work in my department. Our midwives and junior doctors were very scared of COVID and needed a lot of support which meant that the Consultant team had to step up and provide the much needed support by being present on site round the clock. Rotas were completely rewritten with abolishment of elective gynaecology surgery and clinics and introduction of virtual clinics which, by the

way, have their limitations but have shown the way forward to reduce footfall to the hospital in order to significantly lower numbers post COVID."[6]

Non-urgent operations were halted while wards were converted to expand capacity. At Great Ormond Street Hospital, three wards were converted "for general paediatric secondary care use". This has allowed health professionals "to take almost all the secondary care paediatrics from North London, to allow other adult hospitals in the region to expand their adult capacity."[10]

Some of the hospital staff and trainees have helped in other hospitals "particularly at the large four thousand bed Nightingale hospital set up for COVID intensive care patients at the Excel Centre".[10]

Work commitments also changed overnight. Medical doctors had to be trained to face the inevitable and this involved a lot of learning and relearning in a short span of time. Preparations involved laborious processes which had to be dealt with efficiently:

"What shocked me was that work had completely changed in that month. Everything was fast paced. Non-urgent work was cancelled and so all outpatient clinics were stopped. The community paediatric team were asked to go through all the patient lists to check which patients needed urgent appointments or who could wait. We were also asked to check who needed face-to-face or telephone appointments. This was quite laborious. We were informed that we could be redeployed to work on paediatric wards and potentially adult wards if required. We were trained in using different levels of PPE. The paediatric ward was moved to a new building in the same hospital (to allow the old ward to be used by adult patients with COVID-19). The junior doctors in paediatrics were redeployed to work in the adult teams. I had to reacquaint myself with paediatric and neonatal life support and management of acutely unwell children. I also had to train on using the inpatient ward Paperlite electronic system. There was an immense amount of learning and re-learning in a very short time, more than I ever did in my life. In addition, there was a massive daily influx of COVID-19 emails and updates. It was challenging keeping up with the latest advice."[3]

Large teaching hospitals had to undergo huge changes in order to take care of the large number of patients during the first surge of the COVID-19 pandemic, while intensive care units had to increase their capacity drastically:

"In order to handle the onslaught, we had to restructure all our medical and surgical teams into 'mega-firms' for the care of the vast number of patients afflicted by this deadly disease. Most of our wards were converted to temporary 'COVID wards' and our already large intensive care unit has had to expand several-fold in order to keep our capacity ahead of the ever-increasing demand for ventilator-equipped beds."[7]

Each department within the hospital had to create its own protocols according to the needs of the patients involved. For example, Dr Ganado writes how:

"[The] focus then turned to how to care for infants of infected mothers while protecting our other very vulnerable babies and protecting our staff from cross infection. There was a lot of work done to produce guidelines on managing COVID-19 positive mums at delivery and in theatre. Our HDU had become an area designated for infants of COVID-19 mums and escalation put in place in the event we ran out of beds. Daily training sessions were put in place on how staff should don and doff and mask fit testing."[2]

A neurosurgical ward adopted a remote working system to reach out to patients and to reorder and prioritise hospital appointments. Vulnerable patients were urged to stay at home and certain clinics were conducted via telemedicine:

“Our neurologists keep vulnerable patients with neurological diseases out of hospital by conducting regular telephone and internet clinics. With my fellow consultant neurosurgeons, I now participate in an on-call rota at the National Hospital in Queen Square. We spend time in weekly blocks, conducting telephone clinics from home, covering urgent daytime and night time neurosurgical referrals, emergency neurosurgery in hospital and blocks of days or nights helping out in ITU.”[5]

Collaboration in times of adversity becomes crucial, especially during a pandemic. Significantly, medical doctors highlighted the support they received from co-workers:

“Our teams rose to this new challenge. I could no longer travel freely to Malta but Dr Oscar Aquilina kindly offered his experience with cardiac pacemakers and stepped up to change neural pacemaker batteries that were about to run out […] Past talents have been dusted down with one of us volunteering to return to being an intensive therapy unit (ITU) nurse and embrace the gruelling, long hours in personal protective equipment (PPE), taking care of the sickest COVID-19 patients.”[5]

The New Normal

The shift towards non-traditional settings had already started before this global pandemic, but the realities of COVID-19 have shifted resources and spurred investment that will have lasting effects. Although global health crises share common characteristics across national contexts, each country has its unique political and social systems that affect information behaviours and environments.[10] Indeed, the need to frequently adjust to meet rapidly evolving requirements, communication and adoption, and coordinating the needs of multiple stakeholders while maintaining high-quality medical care became common ground:

“So now my week consists of daily telephone or video clinics with parents/carers with limited face to face contact. There are also frequent virtual meetings with colleagues from hospital, community, Children’s Learning disability Team and Children and Adolescent Mental Health Service (CAMHS). Slowly, teaching is also restarting on a virtual platform. Though for most of my work day, I am alone in a room talking to a screen, I am still in touch with the families and children I care for and with colleagues who are in this with me. I am not alone. I am well supported and my colleagues and friends are doing a great job keeping the NHS moving forward.”[3]

Telehealth has become a modus operandi during this pandemic and medical practitioners have adapted to virtual meetings and remote administrative work:

“My work now mostly involves virtual meetings with national authorities learning about latest guidance and making sure our Standard operating procedures are in line with this. I regularly do clinic triage and telephone consultation. I support my colleagues in the best way I can by taking on some of their administrative loads such as mortality investigations and giving telephone advice to consultants from Level 1 and 2 units.”[2]

This “new normal” brought with it other challenges, some of which seeped in affecting and changing the ways cure and care are delivered. Dr Susan Mulvaney, a paediatric emergency doctor, aptly describes how the nature of her work had to change:

“As a paediatrician, I am used to be being very tactile with my patients. I sometimes lift them up on the bed, blow bubbles for entertainment, high five as they leave and even give the occasional hug and hair ruffle. All this is out of bounds now. Children are faced with doctors that look scary in masks, and who make the least physical contact with them as possible. I was given a special mask as I failed “fit testing” with all the masks made available to us. It’s heavy and cumbersome and is very irritant on the face especially if worn for a long time.”[4]

Psychological support is pertinent during these fraught times, therefore, a psychological support service dedicated to hospitalised patients and medical staff was set up at Policlinico San Donato, Milan, Italy. Dr Edward Callus, Head of Clinical Psychology Service describes how:

“The team of psychologists and psychotherapists of the Clinical Psychology Service has also reformed their activities to be “by the side” of the isolated patients with the support of media and technology. As indicated in the pertinent guidelines, and after studying the Chinese experience, we have introduced telephone, chat and video call interventions, depending on the patient's needs and the severity of the clinical condition.”[11]

Dr Edward Callus also stresses the importance of an “empathic relationship: it is important for patients to know that there is someone willing to listen to them and has the professional capacity to do so.”[11] Requests for psychological help from healthcare professionals are also in demand. More and more doctors, nurses, social and auxiliary nurses are turning to the Psychology service to get support in the emotional management of the emergency. Dr Callus explains that "since we have activated the service, requests are increasing daily”. An online form has been created to investigate four areas: depression, anxiety, post-traumatic stress and insomnia. The answers are evaluated and give almost immediate feedback about the presence of disturbances. The stress conditions affecting all professionals is very high. They are the ones responsible to decide on the care given to their patients. In some cases, unfortunately, the same professionals become patients. Support is provided over the phone and, when possible, support groups are created.

Personal adjustments

The COVID-19 pandemic also had a major toll on the personal front of medical practitioners. They had to primarily adjust to psychological and emotional matters overnight. While doctors are notoriously resilient, this pandemic exposed their vulnerable side:

“I used to pride myself of being a strong and emotionally resilient person who can be self-sufficient in life. I eat generally well, never smoked and keep myself regularly fit. I am used to being the only one in my family that is well when “there is a bug going round”. I am used to do the caring for people rather than being cared for. I have a strong work ethic and rarely take time off work."[3]

The “little precious things” we take for granted as we plough along the drudgeries of everyday life become significantly important. Dr Formosa misses:

“the ability to see people’s facial expressions and body language and listen to them without the delay and background noise of the virtual world. I miss the ability to have few minutes of small talk with another human being when I serendipitously bump into them on my way to another place. I miss the ability to comfort with the touch of my hand or shake someone’s hand in gratitude, give a pat on the back for a good job well done or give a hug to make someone feel better. I miss the ability to do what I feel I want to do without having to constantly analyse whether it is safe for me and the other person.”[3]

Juggling their professional and personal lives, and trying to meet the challenges of family life, is also not an easy feat especially for women doctors. Dr Formosa explains how:

“In the midst of being a doctor, I am also a parent who is trying to juggle the challenges and pleasure of home teaching a 5-year and a 10-year old while working a full time job. Never before had I appreciated the tremendous work involved in teaching young human beings. I have a lot of experience with adult education since I regularly teach adults e.g. neonatal life support course, Cygnet course for autism, ADHD awareness course etc. However teaching children is a different ball game. The planning required, the

flexibility, the patience and ingenuity needed, far exceeded my expectations."[3]

Little acts of kindness have shown to be motivating when morale is low. Dr Ganado felt that these were the moments which helped her "to push on". Her team was "significantly impacted as one of our nurses became unwell and had been for 2 weeks in critical care fighting for her life too weak to be transferred for ECMO". This tragedy "brought them closer together and has brought out the best of humanity."[2]

Fuelling hope thus becomes an important requisite, while a better future is yearned for:

"In time, this too shall pass, and while we live in nostalgia for our 'normal' recent past, we shall continue to hope for a happier, safer and brighter future!"[7]

"I am sure that the World will never be the same when this is over and I am extremely hopeful that the new normal will be better than what we were used to before the pandemic. I am looking forward to the time when human touch is no longer a threat and I can interact with people and children again at a socially unacceptable distance. Till then the only advice I can give is keep smiling, be hopeful, continue washing your hands and please keep safe".[3]

"I know we will get through this and we will be better equipped for the next one. I hope to be able to visit my sunny home soon. Until then be kind to yourself and one another."[4]

Learning from the Pandemic and Moving Forward

With its rapid spread and associated mortality burden, the COVID-19 pandemic marks an unprecedented global health crisis. Medical practitioners had to face many challenges and were exposed to extraordinary physical and emotional stressors.[13] The psychological impact on doctors of a taxing healthcare crisis needs to be addressed. The interviews reveal that these clinicians were affected regardless of specific exposure to infected patients or high-risk work areas. Job stress, concern for the family, risk of contagion, and adaptation to areas of work outside normal duties - such as remote working - are causal factors of emotional distress.[14] The buzz word since March is change and doctors had to quickly adapt in a way that hospitals could continue treating patients with other diseases, while adjusting existing and creating new protocols to prevent and tackle the spread of COVID-19.

A supportive work culture is vital to maintain the resilience of medical doctors during such a health crisis. Teamwork and drawing support from colleagues emerged as a significant contributor to resilience. Research evidence also suggests that medical practitioners who have strong meaningful relationships, both personally and professionally, are happier and at lower risk of burnout. Similarly, finding meaning and value in one's work is shown to be associated with less burnout in clinicians.[15] Although these doctors faced many challenges, the sense of collegiality with their team pushed them through.

The vocation and love for their work is what keeps health practitioners on their feet, but of course, they are human beings who face this situation with a range of feelings, including fear that no one - inside the hospital or out of it - can shake. Individual strategies thus help medical practitioners to stay focused and emotionally sane during this difficult phase in life. A proactive, multifaceted approach is key in this scenario - these doctors took it in their stride and found ways to adapt accordingly and adjust to a new normal.

The themes identified in this commentary have important implications for pandemic planning. A strategy adopted by Mount Sinai Hospital in Toronto is worth considering. A Psychosocial Pandemic Committee (PPC) responsible for running education training sessions was established.[16] It enabled open lines of communication between psychosocial

providers and frontline healthcare workers. The committee had representatives at senior administrative meetings which enabled information dissemination regarding the principles of psychosocial resilience, and facilitated communication of staff concerns and suggestions gathered during feedback sessions. The PPC contributed to the hospital communications strategy, ensuring reliable, consistent and timely information to staff, and through these multifaceted roles, enhanced the visibility of support providers to frontline workers.[16]

The conditions faced by healthcare workers during the current COVID-19 pandemic can be likened to battlefield conditions faced by military personnel.[16] An intervention based on the Battle Buddy system of the US army to describe a “rapidly deployable psychological resilience combined with elements of the anticipate-plan-deter model can be easily introduced in hospitals.”[16] The intervention has three levels of support: a Battle Buddy system to provide peer support; unit level support through appointing a mental health consultant; and individual support for at-risk individuals. Whereas the latter two elements are more resource-intensive, the Battle Buddy concept is easily implemented and requires few resource commitments.[16]

Conclusions

The COVID-19 pandemic has placed unprecedented strain on the healthcare system and prompted dramatic resource reallocation to minimise patient morbidity and mortality. These resource shifts have resulted in major changes and global efforts across hospitals, and has created multiple challenges for doctors and other healthcare professionals. This commentary has successfully identified and provided a rich source of data on how medical practitioners have coped during a significant adversity. It portrays the resilience of these medical practitioners as they came to terms with a rapidly changing healthcare system and the adjustments they made to fall into a new normal. Indeed, their monumental efforts need to be lauded and their outstanding contributions recognised.

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