COVID-19 and medical educator perceptions: Sense-making during times of crisis

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Background. Although crises are generally considered uncommon, health professions education (HPE) literature gives evidence of repeated and ongoing crises. This has been most recently demonstrated by the global impact of COVID-19. Crisis management literature proposes that such recurrent crises are opportune moments for learning. While there has been much literature published that describes changes made to the format of HPE amid COVID-19, there has been little attention given to the perceptions of medical educators. Medical educators' experiences may serve as a resource to uncover lessons that may have been learnt during this period.

Objective. To address the gap in the literature, by analysing the perceptions of medical educators at the University of Cape Town (UCT) during the COVID-19 pandemic of 2020-2021.

Methods. A qualitative case-study approach was adopted. Rich data were collected from four medical educators using semi-structured interviews and a focus group discussion, and then analysed using a reflexive thematic approach.

Results. The data indicated that educators grappled with a multitude of struggles during the COVID-19 pandemic. These were analysed thematically as: tensions with technology, balancing expectations, and the distribution of support. However, surface-level challenges faced by educators seem to belie a much deeper personal struggle.

Conclusion. The data suggest that whether any learning occurs and what is learnt are embedded within the process of sense-making. If institutions of higher education aim to adopt proactive responses to crises, then further research – as well as support for these sense-making processes during crises – should form a critical part of overall institutional preparedness.

Although crises are generally considered uncommon and unexpected, HPE literature supports the concept of crisis in perpetuity.[1] Globally, this has been observed by the detrimental effects of Hurricane Katrina in Louisiana,[2] human conflict in Iraq[3] and the disruptions caused by the SARS virus in Hong Kong and Canada.[4,5] At UCT, the site of this research, medical training has been disrupted on numerous occasions. In 2016, the #feesmustfall student activist movement led to training disruptions over a period of several weeks and to a complete suspension in training for most health professions (HP) students.[6] More recently, in 2021, a wildfire on Table Mountain damaged UCT property, resulting in the suspension of academic activities for several days.[7]

The SARS-CoV-2 (COVID-19) pandemic exemplifies the impact an infectious disease can have on healthcare systems and the training of the healthcare professionals who sustain those systems.[8,9] In South Africa, a national lockdown was declared on 27 March 2020 in response to the COVID-19 pandemic, prohibiting most contact training at higher education institutions. Subsequently, UCT adopted an emergency remote teaching approach.[10] In 2021, training at UCT continued as 'blended' learning, where most teaching continued online, with very few contact teaching and learning activities allowed.[11] Similarly, HPE worldwide[8,9] implemented changes to adjust to 'social-distancing' measures. Recent systematic reviews[8,9] describe these changes primarily as a migration to online platforms. However, literature examining the detailed experiences of educators from a qualitative perspective is limited.

Educators are uniquely positioned to offer their perspectives on curricular disruptions. Alqudah *et al.*[12] outlined the experiences of Jordanian ophthalmologists in utilising e-learning during the COVID-19 pandemic. However, the use of a cross-sectional survey without open-ended questions does not allow for an in-depth understanding.[12] In contrast, Pather *et al.*[13] used a qualitative approach to describe the perspectives of educators in New Zealand and Australia during the COVID-19 pandemic, focusing on the challenges, opportunities and lessons learned. The work of Pather *et al.*[14] aligns with crisis management literature, which suggests that crisis events should be normalised as organisational disruptions that may present an opportunity for growth and innovation. Furthermore, crisis-management scholars[15,16] suggest that recurrent disruptions in particular, such as those described at UCT, may act as key moments for learning. This study sought to explore the perceptions of medical educators at UCT during the COVID-19 pandemic, in an effort to draw lessons from recurrent crises, and to address the need for rich, descriptive HPE studies focused on medical educator perspectives.

Methods
Study design
The aim of this case study was to explore how medical educators experienced the disruption of the COVID-19 pandemic at UCT. The following specific objectives informed the research process: to explore the experience of medical educators at UCT involved in an undergraduate curriculum during

the COVID-19 pandemic; to identify factors which were challenging or supportive; to identify practical solutions and the lessons, as perceived by medical educators, that could be distilled from their experience of the COVID-19 pandemic.

A qualitative case-study approach was adopted, firmly embedded within an interpretivist paradigm and rooted in the epistemic tradition of social constructivism.[17] As a medical doctor and educator at UCT, the first author (LG) acknowledges her position as an insider-researcher and the concomitant benefits and drawbacks of this position. Navigating careful bias while attempting to leverage this position as a resource was foregrounded throughout this research process.

Study sample

The participants in the study were course convenors at UCT involved in an undergraduate medical curriculum during the COVID-19 pandemic, specifically during 2020-2021. A course convenor is a person who takes overall responsibility for a course, planning all elements of the curriculum including teaching, learning and assessment. Course convenors do not necessarily teach all the course material, and often work with lecturers from contributing speciality disciplines. Course convenors were best positioned to offer the detailed descriptions relevant to this study as it can be argued that they have uniquely broad perspectives to offer. Sample size was rooted in the concept of 'information power' described by Malterud *et al*.[18] as an alternative to the oft-used concept of 'data saturation'.[18] Using the model, a sample size of four participants sufficed; based on the narrow study aim, dense sample specificity and a strong quality of dialogue supported by insider-researcher experience. Purposive sampling was used to recruit participants via email.

Data collection

Four semi-structured interviews were conducted with individual participants and one focus group discussion (FGD) was conducted with the collective. The interview schedule was developed using the five-step framework described by Kallio *et al*.[19] Interviews were conducted in a private venue at UCT and were completed prior to the FGD; both the interviews and the FGD were conducted by the author (LG). Due to the shifting COVID-19 restrictions, the FGD was conducted online through video-conferencing technology from Microsoft Teams® (Redmond, Washington, USA).

Data analysis

Interviews and the FGD were audio-recorded and transcribed. A reflexive thematic analysis was adopted, informed by an inductive approach.[20] Constructed themes were discussed with the co-author (CJ) in order to examine reflexively how perceptions may have influenced thematic construction.[21] Data collection and analysis were carried out concurrently, which allowed for the opportunity to adapt FGD and interview strategies according to early analysis findings. Microsoft Excel® and Word® (Redmond, Washington, USA) were used to aid data analysis. Anonymised data were saved on secure, password-protected storage.

Ethical consideration

This study received ethical approval from Stellenbosch University and UCT.

Limitations

We acknowledge that this research faces limitations as a single-site study with limited participants. However, in spite of these limitations, this work may advance ongoing crisis-management and HPE theory as it offers detailed descriptions of the educator experience during crises.

Results

The participants in the study were medical educators at UCT involved in an undergraduate medical curriculum during the COVID-19 pandemic. Three major themes were identified during thematic analysis: tensions with technology, balancing expectations, and the distribution of support.

Tensions with technology

Technology proved to be invaluable in ensuring continuity of academic activities. However, reliance on technology came with its challenges. Participants' concerns could be grouped into four specific areas: temporal pressures, migrating online, assessment challenges and lack of personal connection. Each of these subthemes is described below.

Temporal pressures

Following the announcement of a national lockdown in March 2020, students and staff at UCT were informed that the mid-semester two-week vacation period would be commencing immediately, i.e. earlier than usual. Students were given three days to vacate residences, with no indication of when they could return or when 'normal' activities would resume. Participants and their colleagues were to use the limited time of the vacation period to adopt an emergency remote teaching (ERT) approach:

> 'And because it was new, because it was sudden, because it was a rush, I felt … I didn't know whether what I was doing was the right thing. Or the wrong thing. Or how appropriate it was.' (P3)

The sheer pace of change and uncertainty regarding the suitability of their actions resulted in inordinately high stress levels for participants.

Migrating online

Participants were required to migrate their courses to a fully online experience as mandated by UCT. This was particularly difficult for those who had to learn new skills, for example senior educators who did not consider themselves to be technologically adept:

> 'Because I think I'm quite a senior person. So, I'm not au fait with everything that's digital. So that switch was difficult for me. Because I literally had to learn new skills.' (P4)

The Centre for Innovation in Learning and Teaching (CILT) at UCT provided informative webinars to aid staff in acquiring these skills. Participants were able to appreciate that mandated ERT allowed for changes that may not previously have been adopted due to resistance or ingrained methods of teaching and learning:

> 'Seeing what's possible. Seeing the advantages of, you know, learning pathways and just things that we would want to use in future.' (P2)

In this subtheme, we may begin to appreciate the tension between the benefits and drawbacks of migrating to teaching online.

Assessment challenges

ERT required that participants conduct all assessments online and remotely.

Acknowledging the disparities in digital access in the student body, online assessments were accessible for several days. For example, students could complete the assessment within any three-hour slot during a three-day period. Staff expressed concerns that this affected the integrity of assessments, while acknowledging that these were necessary compromises in the South African context:

'A student is sitting so far away from me, I really don't know what happened … Giving the benefit of the doubt, maybe something really happened. Because the connectivity in a developing setting like South Africa … We have a plethora of, you know, diverse students.' (P1)

'But there is no integrity in the assessments that we did last year. And you're seeing that this year. Because the students got comfortable with that. Now they want that again. Right? And so, we can't allow that.' (P3)

Due to resource constraints and inequitable digital access among the student body, various assessment compromises were made. This subtheme points to the conflict experienced by staff when trying to conduct a fair assessment while grappling with the short- and long-term consequences of compromising assessment integrity.

Lack of personal connection

Confined to working from home during a national lockdown, educators were no longer able to meet face-to-face with their students or each other:

'I think the biggest, the hardest part of that was when you're talking to a screen – and I still find this today – you don't know whether you're reaching somebody.' (P3)

The participants seemed to feel that their teaching was (in part) defined in terms of their ability to connect with people, working entirely remotely challenged their ability to do so.

Grappling with immense time constraints, isolation from their students and colleagues, and attempting to sustain a course online was an inordinately difficult experience for participants. The subthemes described above build toward the overall theme of tensions with technology; while technology mitigated the disruptive effects of COVID-19, it also seemed to erode participants' confidence in themselves and the perceived integrity of their courses.

Balancing expectations

In this theme participants related the double-edged challenge they experienced during the crisis: straining to meet the expectations of some, while managing their expectations of others. There seemed to be a level of fatigue experienced by participants as a result of these opposing forces. Participants' concerns could be grouped into two specific areas: meeting expectations and managing expectations.

Meeting expectations

In this subtheme participants described student expectations during the crisis as being exceedingly high. For example, students expected participants to have perfected ERT, to be in near-constant communication with them, and to provide pastoral care. With classes of more than 200 students, this was an onerous task:

'Education took a long time to get where it was, pre-COVID pandemic. It took a long time to get to where it was. It didn't just happen overnight.

And suddenly in less than 18 months, everybody must have an answer of how to do this.' (P3)

'Students come to you in their hour of need. And you have to listen, and they tell you very personal things. And you can't tell those personal things to anyone else because you swore confidentiality. So, you take on a lot of other people's trauma.' (P4)

Managing expectations

In this subtheme participants expressed the disappointment they experienced when their expectations of others were not met. Participants expected students to show greater responsibility and professionalism:

'I'm not saying we shouldn't give things. But where, to what extent, are we required to? And to what extent do the students take responsibility for themselves in learning?' (P3)

To successfully convene their courses, participants required the input of lecturers, who were practising clinicians already substantially burdened by COVID-19:

'Many of our lecturers are clinicians, who were obviously very busy dealing with COVID. So, that was a limitation in that we couldn't expect them to necessarily put in the amount of time.' (P2)

Participants expressed a sense of powerlessness when they expected senior faculty members to consult them regarding curriculum decisions and these expectations went unmet.

'You get to a point where you feel that what's the point in doing anything when someone is going to come and tell you "No, that's not the way it should be done, this is the way it should be done."' (P4)

Overall, there seemed to be a sense of disappointment and frustration with social actors with whom participants shared the educational space.

Distribution of support

This theme refers to participant resources in terms of support, and their perceptions pertaining to inadequate support. Participants' concerns could be grouped into two specific areas: avenues of support and perceptions of inadequate support. Participants primarily looked to each other for support. Additionally, UCT provided some avenues of support such as counselling services that were highlighted in institution communiqués. Despite this, participants described an underlying perception that staff were not as well supported as students.

Avenues of support

This subtheme refers to the various resources that participants relied on to cope with ongoing stress. Participants noted that CILT workshops were both an informative tool and a source of community support. Significantly, participants universally expressed the wealth of support that they drew from each other:

'I personally feel very privileged to have worked with the group that I did. Because that helped to sort of stay semi-sane. And also, to find ways to do things, even if they weren't perfect. At least we were able to negotiate together.' (P2)

As a small group of educators working together, shared frustrations often helped to alleviate the burden. The participants described themselves as

a cohesive unit, and drew strength from this community, especially given the fact that together they had faced and overcome previous crises at the institution.

Perceptions of inadequate support

This subtheme refers to the participant belief that the institution did not provide adequate support for staff. While UCT-provided counselling services were available, this was perceived as a superficial offering in the face of exceptionally deep challenges. Furthermore, the perception of inadequate support appeared to be nested in the opinion that institutional culture inequitably prioritised student concerns over those of staff:

'I think we always focus our stuff on students. Right? Everything is about the students, students, students. My biggest thing is what about the staff? Like we keep focusing on the students, what about the people who are you know trying to make this possible … I don't think that that gets the recognition that it deserves. I don't think there's enough space or time allocated to that.' (P3)

Overall, perceptions of inadequate support resulted in participants feeling disempowered.

Discussion

This study uncovered the rich perspectives of medical educators as exemplified by course convenors working at UCT during the COVID-19 pandemic. The findings suggest that their experiences were characterised by three themes: tensions with technology, balancing expectations, and the distribution of support. Tensions with technology impacted on participants' level of confidence to perform their jobs to their personal standards. The complex task of meeting the fluctuating expectations of others and managing their own expectations of others led to a sense of uncertainty and fatigue. Finally, the distribution of support speaks to the factors that influenced staff mental health and resilience in the face of ongoing challenges. Collectively, and in the context of a global pandemic, these three themes demonstrated participants trying to make sense of a sudden environmental instability.

In crisis-management literature, crises – particularly recurrent crises – are regarded as opportune moments for learning.[15,16] Discrete lessons were not easily discernible from the data. However, the data suggest that while educators are positioned to extract lessons from a crisis, this learning seems to be nested within the process of sense-making. Sense-making is the subjective, non-linear process of individuals assigning meaning to their experiences.[22,23] Sense-making helps individuals to cope with ongoing fear and anxiety and influences their ability to make decisions about future actions.

The results are evidence of the struggles that participants faced as they made sense of medical education during the COVID-19 crisis. This line of thinking has been corroborated by other studies that examined sense-making following crises – specifically, a deadly heatwave in France[24] and a disastrous oil-rig explosion near Scotland.[25] These studies and others[26] suggest that crises act as triggering events for sense-making. Our research lends weight to this existing body of literature. Our findings suggest that there may be early lessons to be drawn from the educator experience; for example, the need to prioritise staff support and manage expectations. However, a deeper examination of the data suggests that during a crisis, educators grapple with making sense of their experience as educators. Where institutions place great demands on medical educators during

times of crisis, it warrants concern and further research that the educators themselves are engaged in complex, internalised, sense-making processes while navigating these demands.

Conclusion

The results point to a pattern of tensions with technology, concerns related to balancing expectations and the distribution of support for educators in practice. Thematic analysis revealed the personal struggles experienced by educators in trying to do their jobs during a period of profound crisis. In this paper, these struggles are described and explored in relation to existing literature in the field. We have conceptualised educator experiences during COVID-19 within the framework of 'sense-making'.

Crisis-management literature suggests that crises may be opportune moments for learning. However, the data suggest that whether any learning occurs and what is learnt are dependent on individual sense-making processes during the time of crisis. If institutions of higher education accept the notion of crisis in perpetuity and seek to adopt a proactive response to crises, then initiatives to further research and support educator sense-making during crises should form a critical part of overall institutional preparedness.

1. Govender L, de Villiers MR. When disruption strikes the curriculum: Towards a crisis-curriculum analysis framework. Med Teach 2021:43(6):694-699. https://doi.org/10.1080/0142159X.2021.1887839
2. DiCarlo RP, Hilton CW, Chauvin SW, et al. Survival and recovery: Maintaining the educational mission of the Louisiana State University School of Medicine in the aftermath of Hurricane Katrina. Acad Med 2007;82(8):745-756. https://doi.org/10.1097/ACM.0b013e3180cc279b
3. Barnett-Vanes A, Hassounah S, Shawki M, et al. Impact of conflict on medical education: A cross-sectional survey of students and institutions in Iraq. BMJ Open 2016;6(2). https://doi.org/10.1136/bmjopen-2015-010460
4. McGugan S. Medical school on bypass during the SARS outbreak. Clin Invest Med 2003;26(3):106-108. https://cimonline.ca/index.php/cim/index
5. Patil N, Yan YCH. SARS and its effect on medical education in Hong Kong. Med Educ 2003;37(12):1127-1128. https://doi.org/10.1046/j.1365-2923.2003.01723.x
6. Mayosi BM. Faculty of Health Sciences' suspension of classes in years 1-3 of undergraduate programmes and completion of teaching and examinations in a mini-semester in January 2017. Cape Town: University of Cape Town; 2016. http://www.health.uct.ac.za/news/suspension-classes-years-1-3-undergraduate-programmes-and-completion-teaching-and-examinations (accessed 18 March 2022).
7. Phakeng M. Fire affecting the Rondebosch campus of the University of Cape Town (UCT). Cape Town: University of Cape Town; 2021. https://www.news.uct.ac.za/article/-2021-04-18-fire-affecting-the-rondebosch-campus-of-the-university-of-cape-town-uct (accessed 18 March 2022).
8. Daniel M, Gordon M, Patricio M, et al. An update on developments in medical education in response to the COVID-19 pandemic: A BEME scoping review: BEME Guide No. 64. Med Teach 2021;43(3):253-271. https://doi.org/10.1080/0142159X.2020.1864310
9. Gordon M, Patricio M, Horne L, et al. Developments in medical education in response to the COVID-19 pandemic: A rapid BEME systematic review: BEME Guide No. 63. Med Teach 2020;42(11):1202-1215. https://doi.org/10.1080/0142159X.2020.1807484
10. Lange L. What the new term at UCT will look like. Cape Town: University of Cape Town; 2020. https://www.news.uct.ac.za/article/-2020-03-27-what-the-new-term-at-uct-will-look-like (accessed 18 March 2022).
11. Lange L. Undergraduate teaching and learning at UCT first semester 2021. Cape Town: University of Cape Town; 2020. https://www.news.uct.ac.za/article/-2020-12-07-undergraduate-teaching-and-learning-at-uct-first-semester-2021 (accessed 17 March 2022).
12. Alqudah NM, Jammal HM, Saleh O, Khader Y, Obeidat N, Alqudah JM. Perception and experience of academic Jordanian ophthalmologists with E-learning for undergraduate course during the COVID-19 pandemic. Ann Med Surg 2020;59:44-47. https://doi.org/10.1016/j.amsu.2020.09.014
13. Pather N, Blyth P, Chapman JA, et al. Forced disruption of anatomy education in Australia and New Zealand: An acute response to the Covid-19 Pandemic. Anat Sci Educ 2020;13(3):284-300. https://doi.org/10.1002/ase.1968
14. Roux-Dufort C, Lalonde C. Exploring the theoretical foundations of crisis management. J Conting Crisis Manag 2013;21(1):1-3. https://doi.org/10.1111/1468-5973.12014
15. Chekkar-Mansouri R, Onnee S. Towards a theoretical understanding of the recurrence of crises embracing the issue of organisational learning: An illustration with the case of two hostile takeover bids faced by Société Générale (1988, 1999). J Conting Crisis Manag 2013;21(1):56-68. https://doi.org/10.1111/1468-5973.12009

16. Deverell E. Crises as learning triggers: Exploring a conceptual framework of crisis-nduced learning. J Conting Crisis Manag 2009;17(3):179-188. https://doi.org/10.1111/j.1468-5973.2009.00578.x

17. Illing J. Thinking about research: Theoretical perspectives, ethics and scholarship. In: Swanwick T, ed. Understanding Medical Education: Evidence, Theory and Practice. 2nd ed. West Sussex: Wiley Blackwell, 2014:331-347.

18. Malterud K, Siersma VD, Guassora AD. Sample size in qualitative interview studies: Guided by information power. Qual Health Res 2016;26(13):1753-1760. https://doi.org/10.1177/1049732315617444

19. Kallio H, Pietilä AM, Johnson M, Kangasniemi M. Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. J Adv Nurs 2016;72(12):2954-2965. https://doi.org/10.1111/jan.13031

20. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psych 2006;3(2):77-101. https://doi.org/10.1191/1478088706qp063oa

21. Varpio L, Ajjawi R, Monrouxe LV, O'Brien BC, Rees CE. Shedding the cobra effect: Problematising thematic emergence, triangulation, saturation and member checking. Med Educ 2017;51(1):40-50. https://doi.org/10.1111/medu.13124

22. Kramer MW. Sensemaking. The international encyclopedia of organisational communication. 2017:1-10. https://doi.org/10.1002/9781118955567.wbieoc185

23. Weick KE. Sensemaking in organisations. California: Sage Publications, 1995.

24. Boudes T, Laroche H. Taking off the heat: Narrative sensemaking in post-crisis inquiry reports. Organ Stud 2009;30(4):377-396. https://doi.org/10.1177/0170840608101141

25. Brown A. Authoritative sensemaking in a public inquiry report. Organ Stud 2004;25(1):95-112. https://doi.org/10.1177/0170840604038182

26. Stein M. The critical period of disasters: Insights from sense-making and psychoanalytic theory. Hum Relat 2004;57(10):1243-1261. https://doi.org/10.1177/0018726704048354