Towards collective moral resilience: the potential of communities of practice during the COVID-19 pandemic and beyond

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ABSTRACT

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To cite: Delgado J, Siow S, de Groot J, et al. J Med Ethics Epub ahead of print: [please include Day Month Year]. doi:10.1136/ medethics-2020-106764 This paper proposes communities of practice (CoP) as a process to build moral resilience in healthcare settings. We introduce the starting point of moral distress that arises from ethical challenges when actions of the healthcare professional are constrained. We examine how situations such as the current COVID-19 pandemic can exponentially increase moral distress in healthcare professionals. Then, we explore how moral resilience can help cope with moral distress. We propose the term collective moral resilience to capture the shared capacity arising from mutual engagement and dialogue in group settings, towards responding to individual moral distress and towards building an ethical practice environment. Finally, we look at CoPs in healthcare and explore how these group experiences can be used to build collective moral resilience.

INTRODUCTION

The concept of moral distress differentiates moral dilemmas (situations in which the person is uncertain of how best to act) from situations in which the person knows how to act but is frustrated by barriers to action (the person knows what to do, but cannot change what is happening).¹ Moral distress was originally conceived as the situation that occurs when the healthcare professional has a moral judgement, but the presence of an institutional or external constraint impedes that judgement from being carried out.² Common external factors include inadequate resources or staffing, insufficient organisational support and specific clinical contexts such as end-of-life care or critical care. Additionally, these constraints can be also internal³ such as real or perceived powerlessness. Moral distress has been associated with negative consequences such as emotional distress, staff turnover, occupational burn-out and diminished moral sensitivity.45 Unresolved moral distress can also compromise healthcare professionals' ability to uphold ethical standards to fully address patient needs, thus compromising patient care.⁴ Professionals who act contrary to their personal and professional values or who cannot carry out moral decisions feel that their integrity is compromised, and therefore, they may have 'moral residues', the lasting consequences of moral distress.¹ Moral residues can be understood as the result of moral distress when we have seriously compromised ourselves or allowed ourselves to be compromised.⁶ As much moral residue build ups, moral injury becomes more likely to happen.⁷ The term 'moral injury' has been defined as an injury suffered as a result of perpetrating, failing to

prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations.⁸ More recently, Čartolovni *et al*'s scoping review of moral injury among healthcare workers,⁹ also included the development of a conceptual framework to understand the interplay between moral injury and moral distress. To cope with moral distress different strategies have been suggested. Table 1 provides a conceptual clarification about all these related terms.

In this article, the main goal is to show how communities of practice (CoP) can be crucial in fostering the moral resilience of healthcare professionals to support them to manage unavoidable moral distress. Fostering moral resilience can be of great value, especially in exceptional situations such as the current COVID-19 pandemic. To this end, we start by analysing why moral distress is an issue that must be addressed and mitigated, particularly in the context of situations such as the current pandemic because of the huge emotional impact on healthcare professionals. Second, we define and explain moral resilience as one of the most valuable responses to moral distress and propose the term collective moral resilience as the response to moral distress which emerges from the shared experience of the community. This community can be a CoP, or also other communities where experiences can be shared. Third, we explain CoPs, highlighting the main characteristics of CoPs in healthcare settings, and showing ways in which CoPs can promote moral resilience in healthcare professionals to cope with moral distress. Finally, we address some of the main challenges that this proposal has for education and innovation in the healthcare field. Ultimately, we believe that experiencing the shared knowledge that emerges within a CoP is important during training, thus early on in the formation of professional identity, and is equally important to continue in practice as healthcare professionals. By promoting collective moral resilience, CoPs may also provide a valuable approach to addressing moral distress beyond the pandemic.

MORAL DISTRESS IN THE MIDST OF A PANDEMIC

When ethical conflicts are recognised by healthcare professionals, but they cannot act according to their moral choices, moral distress arises.¹⁰ Jameton's² original conception of moral distress described situations in which the healthcare professional has a moral judgement, but the right course of action is not taken due to the presence of an institutional or external constraint. Despite criticism of the concept



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Term	Definition	Source	Observations
Moral distress	The psychological distress of being in a situation in which one is constrained from acting on what one knows to be right due to the presence of institutional or external constraint.	2	Although there are many definitions of moral distress, we have selected this definition because it was the first one reported in the literature and remains widely referenced.
Moral injury	Perpetrating, failing to prevent or bearing witness to acts that transgress deeply held moral beliefs and expectations. A new concept in healthcare, consisting of a deep emotional wound and unique to those who bear witness to intense human suffering and cruelty	89	The term moral injury has been used mainly in military context. Recently, it is being applied into healthcare field, but still requires further investigation and clarity, particularly in its relationship with moral distress.
Moral residue	The result of moral distress when we have seriously compromised ourselves or allowed ourselves to be compromised, threatening or betraying deeply held and cherished beliefs and values.	6	
Moral resilience	The capacity of an individual to preserve or restore integrity in response to moral adversity, including situations that include moral complexity, confusion, distress or setbacks.	13	Moral resilience is still a concept under construction. We provide the revised definition by Rushton.
Collective moral resilience	Shared capacity arising within a group with mutual trust and connectedness, through the process of sharing ethically challenging situations, thinking together about the challenges, and dialogue to sustain or restore moral integrity in response to moral suffering.	This article	We proposed this term in this article. It can be considered a term aligned with relational integrity (Holtz <i>et al</i>) as a characteristic of moral resilience to acknowledge the embeddedness of individuals in healthcare culture and social practices. However, collective moral resilience implies a process of dialogue to sustain moral integrity.

and some controversy over whether the term of moral distress is suitable or not^{11 i}], we agree with Morley¹² and Rushton¹³ in the recognition of the usefulness of the term. However, according to Morley,¹² there is a necessity to broaden the definition to one that comprises three core criteria: the experience of a moral event, the experience of psychological distress, and a causal relation between the two,¹² since this broader understanding can allow the exploration of other potentially relevant causes of moral distress, and subsequently facilitate some subcategorisation into, for instance, 'moral-constraint distress' or 'moralconflict distress'.¹⁴ Although much of the research into moral distress is among nurses, it is also experienced by a range of healthcare providers, including physicians, advanced care practitioners, social workers and chaplains.¹⁵ 16

The ethical questions that arise in daily practice in healthcare involve great emotional impact under ordinary conditions, and healthcare professionals recognise that their actions are subject to ethical evaluation in daily practice.¹⁷ In exceptional situations, the emotional impact of daily practice increases exponentially. Based on the experience of the mental health response to the 9/11 terrorist attacks, DePierro et al¹⁸ suggest that the COVID-19 pandemic is expected to lead to high rates of depression, post-traumatic stress disorder (PTSD), and substance abuse among survivors, victims' families, healthcare professionals and other essential workers. In the COVID-19 pandemic, several factors have been identified as triggering stress, fear and moral distress in health professionals, increasing the mental load of health workers. During the peak period of the pandemic, the vertiginous increase in the number of cases, overwhelming workload, lack of personal protective equipment (PPE) with an associated fear of infection when treating patients, potentially being a vector of infection for family members, lack of specific medications, uncertainty about best treatment strategies, the huge influx of information and misinformation, feelings of being inadequately supported by institutions, racism and stigma towards healthcare providers and the media coverage have been

identified as the main factors related to healthcare professionals' psychological burden.¹⁹

Focusing on moral distress, one important aspect that can trigger moral distress in the pandemic is related to the decision-making process about the allocation of scarce resources, such as ventilators, intensive care beds, dialysis and trained personnel. This decision-making process, unavoidably making quick decisions, generates moral distress.^{18 20} In addition, the ethical problems related to allocation involve the withdrawal of life support treatments, which in this case, can occur despite the fact that the treatments are not objectively futile and the patients do not reject these interventions, but fundamentally due to the lack of availability of resources in some settings.

In addition, the shortage of PPE has been one of the main problems in some areas, with a huge repercussion because caring for patients without adequate PPE implies a high risk to acquire the disease. On 29 May, for instance, the number of healthcare professionals positive for COVID-19 was 51482 and 63 healthcare professionals had died in Spain, one of the countries most affected by the shortage of PPE. Worldwide over 600 nurses have died, with great variation of death rates between countries, and doubling between May and June 2020 (CBC News, 2020). One Italian physician leader has called this time, 'a season of death', with the death count of Italian doctors reaching 170 in July 2020.²¹ In the USA, on 9 July, for the 95 860 cases of COVID-19 among healthcare personnel, the number of deaths among them was 515, following the data provided by the CDC.

Healthcare professionals sometimes have to face the difficult situation of working in unsafe working conditions and trying to provide high quality patient care.²² However, when does workbased risk become unacceptable? There is a duty to treat patients regardless of their illness, but there are limits to this duty if there is too much risk.²³ These extreme situations push healthcare professionals to high emotional impact decision making, given that professionals cannot refuse to care for patients, but neither can they put their own lives at risk.

The other important aspect that can trigger moral distress is the fact that personnel cannot provide the best standard of care because of the huge number of patients that they have to treat. Additionally, hospitals and social health centres imposed restrictive visitor policies to minimise the spread of SARS COV2; families were often unable to visit their loved ones, and clinicians experienced moral distress from treating patients who died

ⁱThe authors argue that the concept of moral distress ought to be abandoned because of the underlined idea that nurses' moral judgements are correct and justified, which can erode the process of moral deliberation. The authors suggest that this concept risks nurses failing to nurture the skills required for ethical discussion by assuming rightness of their moral judgements.

alone, and from having to enforce these policies. Moreover, healthcare professionals have had to provide telephone information exclusively, including communicating bad news, which can be a tremendously demoralising experience with a great emotional impact.^{24 25}

The possible negative effects of this set of difficult experiences and decisions that healthcare professionals have to face should not be underestimated. Many medical and nursing organisations are already taking steps to address the moral distress, psychological distress, and PTSD experienced by their workers, and many others need to integrate such support into their responses to the pandemic.²⁶ As it has been pointed out, regarding the ethical challenges arising in the COVID-19 pandemic, 'preparatory and follow-up practices implemented at different levels may help mitigate distress and empower healthcare providers'.²⁷ One way to cope with moral distress is by fostering moral resilience.

MORAL RESILIENCE IN RESPONSE TO MORAL DISTRESS

Several ways of responding to moral distress have been observed. Moral resilience has been proposed as a positive response to distress, shifting the focus away from negativity and despair, and towards possible solutions and growth. One definition of moral resilience is 'the capacity of an individual to preserve or restore integrity in response to moral adversity' which includes situations that include moral complexity, confusion, distress or setbacks.¹³

In a literature review,²⁸ several definitions of the term moral resilience, as well as different uses of this concept in the scientific literature were analysed. The authors concluded that there is a lack of scholarship on moral resilience, and there is no unifying definition. A qualitative study of interprofessional healthcare providers' definitions of moral resilience found an emphasis on personal integrity, relational integrity and buoyancy.²⁹ Relational integrity being the ability to understand and respect the values of others while upholding one's personal integrity. Buoyancy would be the individual's ability to 'withstand threats to integrity by leveraging their capabilities to regain or preserve one's integrity'. Additional capacities to support moral resilience were selfregulation, self-stewardship and moral efficacy. Self-regulation refers to awareness of one's psychological and somatic states; self-stewardship includes paying attention to one's well-being while being aware of one's limits; and moral efficacy requires advocating for what one believes is correct, even when there is resistance. It is evident that with the exception of relational integrity, these themes predominantly focus on individual factors.

To our knowledge, the literature on moral resilience has mainly focused on individual aspects, without paying special attention towards a collective meaning, which we propose is an important contribution of CoP. CoP may allow development of the aforementioned concept of relational integrity by creating a safe space for consideration of multiple perspectives. Lachman³⁰ defined moral resilience as 'the ability to deal with an ethically adverse situation without lasting effects of moral distress and moral residue, which requires morally courageous action, activating the necessary supports' (p 123). However, she does not define what those necessary supports are, although it does indicate that leaders can foster the resilience of professionals by fostering an ethical workplace. Globally, and based on the definitions of Baratz³¹ and Rushton,¹⁰ we understand that moral resilience refers to the ability to cope with crisis situations in response to the moral complexity, confusion or anguish of practice. Rushton proposes to create a culture of moral resilience: 'a necessary shift to align individual moral resilience

with a culture of ethical practice is a shift from authoritarian, intensive hierarchy to synergistic responsible alliances'.¹³ While the main focus about moral resilience in the literature relies on individual aspects, we consider that resilience has a deep collective meaning, and consequently we claim the necessity to turn toward a more collective concept of moral resilience[ⁱⁱ]. One of the reasons for that is that resilience is a capacity that requires a supporting environment for its flourishing, or to make it possible.^{32 33} Following Fineman's vulnerability theory, resilience is not a characteristic inherent to an individual. On the contrary, it needs collective support, from society and its institutions, to be developed.^{32 33} This turn on resilience towards collectivity is important to understand that resilience must be fostered due to the enormous emotional burden of care work, as well as the responsibility and risk that it entails, but never as a mechanism to cope with unacceptable and dangerous working conditions.³⁴ In an exploratory study about interprofessional' definitions of moral resilience, the authors found six categories as the main characteristics of moral resilience: personal integrity, relational integrity, buoyancy, self-regulation, self-stewardship and moral efficacy.²⁹ These characteristics can be a path for mitigating the detrimental effects of moral distress and moral complexity.²⁹ We believe that shared values and mutual support in teams, including support from management, are key elements to building moral resilience. In addition, within a CoP, resilience can be built on the tacit learning that arises from experience, which is shared by the members of the CoP. Therefore, far from being an individual concept, resilience has a deep collective meaning, $\frac{32}{2}$ $\frac{33}{3}$ but it must be made explicit.

Turning towards collective moral resilience

Collective resilience[ⁱⁱⁱ] is a new concept which arose in the context of emergencies and disasters to offer a new perspective to think about aspects of personal resilience and recovery in these situations.^{35,36}"Collective resilience refers to the way a shared identification allows groups of survivors to express and expect solidarity and cohesion, and thereby to coordinate and draw on collective sources of support, to deal with adversity'.³⁵ While mass emergency behaviour and collective resilience refer to the influence of existing social bonds, a critical source of collective resilience in emergencies and disasters is the trend to come together, psychologically and behaviourally. During the COVID-19 pandemic, some have described a deep sense of connection globally as everyone is suffering in some way, due to lockdowns, limited physical interactions, fear of contagion or working at the front lines.³⁷

ⁱⁱAlthough Rushton12 uses the term of collective resilience, she refers to individual and collective resilience, and she does not develop a definition or address this term separately from the general concept of moral resilience. For instance, Rushton states that "one of the crucial elements of moral resilience is the capacity for moral repair, both individually and collectively" (p. 70). It seems that there are no specific differences between moral resilience at the individual level or at the collective one. However, we believe that it is important to specifically address the concept of collective moral resilience.

ⁱⁱⁱIn addition to the term of collective resilience, resilience also has been understood in a collective manner as Community Health Resilience (CHR): "the ability of a community to use its assets to strengthen public health and healthcare systems and to improve the community's physical, behavioural, and social health to withstand, adapt to, and recover from adversity" (US Department of Health and Human Services https://www.phe.gov/ Preparedness/planning/abc/Pages/community-resilience.aspx)

We propose the term 'collective moral resilience' as a shared capacity arising within a group with mutual trust and connectedness, through the process of sharing ethically challenging situations, thinking together about the challenges, and dialogue to sustain or restore moral integrity in response to moral suffering. Collective moral resilience as a term acknowledges the emergent properties of groups in addressing and overcoming moral challenges. This definition is our first approach, and further research is required to explore and understand what are the necessary conditions for collective moral resilience to occur . However, we claim that in order to foster collective moral resilience, CoPs can be of great value.

What is the role of cops in the healthcare field?

CoP was initially defined as a group of people who share a common interest and a desire to learn and contribute to the community with a variety of experiences.³⁸ The starting point was the idea that situated learning emphasises the social interactions that support learning within a community of those who practice similar professions or are involved in similar fields. Subsequently, Wenger *et al*³⁹ pointed out that 'CoPs are groups of people who share a concern, a set of problems or a passion for a topic, and who deepen their knowledge and experience in this area by interacting on a regular basis'. These people, they add, do not necessarily work together, but as they spend time together, they often share information, ideas, and advice so they help each other solve problems of common interest to the group.³⁹

At some point, a CoP can be better understood as a process rather than as a specific product or entity.^{40 41} People who make up a CoP share tacit knowledge and meet regularly to guide each other through their understanding of a mutually recognised reallife problem. Some of the common characteristics in the CoPs are: interaction, collaboration to share and create knowledge, and the promotion of a shared identity among its members,⁴¹ which can be aligned with the concept of relational integrity.²⁹ Therefore, one of the key elements is mutual engagement.⁴⁰

Ranmuthugala et al^{42} carried out a systematic review to analyse how CoPs are established in the healthcare field. From a historical point of view, the authors state that, although in the first publications the focus of the CoPs was on learning and exchange of information and knowledge, more recently, the CoPs were used in the literature as a tool to improve clinical practice and catalyst of evidence-based practice. As a result of the review, they proposed a series of characteristics of CoPs in healthcare: (1) arise from shared practice, (2) help to establish professional identity, (3) have a common goal or purpose, (4) have no geographical, professional and/or organisational limits, (5) both the group and the focus may vary from time to time, (6) the exchange of knowledge is done through formal and informal processes, (7) social interaction, both face to face and virtually, is of great importance, (8) the origin can be spontaneous or established, (9) they have five stages of development: potential, fusion, maturation, administration and transformation, (10) shared commitment and enthusiasm, (11) self-selected membership may be more successful than a CoP with externally appointed members, (12) regular communication and interaction between members is essential and (13) need infrastructure to support them.

However, it seems that none of these elements are really specific to CoPs in the healthcare field, but rather common elements of CoPs applicable to any field.

The authors also note variation with respect to structure and method of interaction within a COPs. Face-to-face meetings were the most frequent means of interaction, with email and web-based methods the next most frequent. Although specifics on communication methods have not been studied, one case study did find that face-to-face meetings were helpful to promote energy levels of group members.⁴³ Other efforts have reported success with primarily virtual methods.⁴⁴

What is, then, the role of CoPs in the healthcare field? What is specific about them? In the table below, we provide a fine grained comparison of the main characteristics between CoPs in healthcare and CoPs in other industries. We understand that 'the CoPs constitute an intentional and determined space to promote the exchange of experiences that arise in clinical practice'.⁴⁵ The intentional development of CoPs by health professionals can arise after having identified a shared clinical problem relevant to their daily working life,⁴⁶ or sometimes it is urgent clinical problems, with the patient at the centre of medical care, which generates the start of the CoP.²⁸ Though, this exchange of experiences that arise in clinical practice are not limited solely to these two aspects. It is necessary to include the ethical dimension and obligation that runs through all clinical practice, and which refers not only to providing patient-centred care or to solving the clinical problem, but also to the interaction between healthcare professionals and the relationship with the institution, among other elements. However, there is a lack of research on how a CoP can be a source of ethical learning, particularly in the healthcare field. Our hypothesis is that CoPs generate practical wisdom on ethical issues. The practical wisdom refers to reasoning and deliberation forms in which knowledge, reflection, attitude and professional experiences are combined to make a judgment.⁴⁷ As Aristotle conceived it in *The Nicoma*chean Ethics,48 practical wisdom (phronesis) must be acquired through practice: the deliberative, emotional and social skills that enable human beings to put their general understanding of well-being into practice in the most suitable way to each occasion can not be acquired by learning general rules. As Edmondson and Pearce⁴⁹ argue, healthcare professionals' reasoning involves practical wisdom, and not only evidenced-based or value-based reasoning. Practical wisdom is a key element in dealing with vital human affairs/problems with a lack of prescribed solutions, and for which uncertainty and fluidity must be tolerated in seeking to resolve them. This form of deliberation involves ethical concerns, and refers to emotional, social and ethical capacities. This framework could be used to develop approaches to healthcare based on experiential learning.⁴⁹

Austin¹ points out that there is a pressing need for dialogue among healthcare professionals, and proposes understanding healthcare settings as moral communities, as a way of learning about ethical coexistence. She argues that healthcare teams can be an exceptional source of support for their individual members, as well as for the team itself. The behaviour of healthcare professionals is determined by the codes, values and responsibilities of their profession, which define their attitude towards ethical practice. Nevertheless, as Austin¹ points out, being ethical is based on relationships and implies a capacity to respond towards others: an interdisciplinary understanding of the moral space of the healthcare environment could open new ways of thinking, investigating and searching for methods to address those challenges. Relational integrity, that is having moral solidarity and community values, has been considered an attribute of moral resilience.²⁹ While relational integrity is a characteristic of moral distress that 'reflects the dynamic interplay between upholding personal integrity and one's professional value commitments that prioritise the interests of the people they serve',²⁹ collective moral resilience implies that the team (the community of practice) is the source from which it is possible to foster resilience,

Table 2 Comparison of key elements between CoPs in healthcare and CoPs in other industries

Element	СоР	Healthcare CoP
Intended purpose	Sharing knowledge Improving organisational performance Fostering innovation	Sharing knowledge Improving clinical practice Enhancing humanism of and healthcare quality Improving Knowledge Translation Addressing ethical issues and human suffering (proposed)
Outcomes	Performance and profits Find competitive advantage	Development of local guidelines and policies Improved adherence to evidence-based policies Quality improvement to better standards of care Enhanced collective moral resilience (proposed)
Domain Shared learning need	Business Education Government	Healthcare professionals committed to providing humanistic and quality care and improving well-being for patients and practitioners
Community Method of collective learning over time	Activities and discussions to share information	Activities and discussions to share information Dialogue to reflect and deepen understanding of (shared) experiences
Practice Resources provided by interactions over time	Joint enterprise—improving performance Mutual engagement—understanding for other professions or industries Shared repertoire—industry dependent, but often includes technological solutions Practical wisdom (proposed)—improving the ability to see which course of action is best supported by reasons	Joint enterprise—improving patient care, cultivating self-awareness and resilience Mutual engagement—opportunity to address healthcare system and culture Shared repertoire—often limited resources, excessive demands, patient-centred care. Practical wisdom (proposed)-activating capacities of the self (professional), other (patient and/or carers and colleagues) and the problem in itself

A CoP is organised around a 'practice'. Traditionally, three characteristics or qualities define a 'practice', and we propose a fourth characteristic of a practice:

1. Joint enterprise. The members of a CoP are there to accomplish something on an ongoing basis; they have some kind of work in common and they see clearly the larger purpose of that work. They have a 'mission'. In the simplest of terms, they are 'up to something'.

2. Mutual engagement. The members of a CoP interact with one another not just in the course of doing their work but to clarify that work, to define how it is done and even to change how it is done. Through this mutual engagement, members also establish their identities at work.

3. Shared repertoire. The members of a CoP have not just work in common but also methods, tools, techniques and even language, stories and behaviour patterns. There is a cultural context for the work.

Practical wisdom (proposed). The members of a CoP share a practical wisdom which combines different professional experiences, as well as the reflection about them. The practical wisdom is not included in the professional training, neither in the student's curricula. Only emerges with the experience in the profession.
CoP, communities of practice.

affecting all the participants, not only on an individual level, but as a collective group. How healthcare professionals relate to each other and exchange ideas has been explored using the concept of dialogue.

Kumagai et al⁵⁰ have explored the concept of dialogue, as opposed to discussion, as a process for healthcare professionals to relate to others. They define discussion as typically goal-oriented, focused on objective data, and often rooted in pre-existing power structures. Conversely, dialogue is more exploratory and conversational, de-emphasising hierarchy and supporting reflection on one's own values, life experiences, emotions and worldview. It can enhance professional identity formation, that is, being human in one's role as a healthcare provider. Dialogue is considered deeply relational, and requires understanding of hierarchies of power, privilege and inequities in one's environment and in healthcare, addresses illness experience, suffering, injustice and ethical issues. To fully engage requires respect, patience and openness to difference, in life experience and perspective. Translation of dialogical communication style to the physicianpatient and teacher--student relationship contributes to exploratory exchanges for understanding, allowing silenced voices to be heard and thus, broadening understanding of human experience of illness and treatment.⁵⁰ Kumagai states that 'the goal of dialogue is not necessarily a specific outcome...but instead, may be an enhanced understanding of ourselves, each other, and the world around us through an opening up of different questions and possibilities'.⁵⁰ Fostering dialogue may be valuable to fostering collective moral resilience within CoPs (table 2).

Finally, in order to promote collective moral resilience within a CoP, it is recommended to have skilled navigation. Since the management of ethical and emotional aspects is quite complex, CoPs pursuing phronesis must be guided by experts, who can

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provide various perspectives.⁵¹ Otherwise, participation could be counterproductive and increase the participants' emotional burden. Therefore, discussion and dialogue should be facilitated by experts with sufficient experience to facilitate groups, address emotional needs, understand ethical issues and foster moral resilience. These experts should also be skilled at creating an environment wherein safe and authentic dialogue cultivate an attitude of openness and curiosity among members. They can be different healthcare professionals, such as psychiatrists, psychologists, social workers, nurses and bioethicists, among others. In this way, opportunities can also be generated for learning about specific ethical issues that arise, guided by experts.

COP AS A PROCESS TO FOSTER COLLECTIVE MORAL RESILIENCE FOR HEALTHCARE PROFESSIONALS: THE PARTICULAR CONTEXT OF THE COVID-19 PANDEMIC

The way in which CoPs increase resilience can be understood as a cyclical structure.⁴⁵ Following this structure, based on practice in the healthcare field, several ethical questions emerge involving a big emotional burden. Due to this, a CoP is intentionally created, as a space to share experiences, collectively reflect on the cases arising from practice, raise new questions regarding how to face similar situations in the future, expose and talk about vulnerability as a shared experience and guiding an ethical exploration.⁴⁵ Ultimately, the knowledge generated through this interaction at the CoP, which in this case we could consider as practical wisdom, can increase the resilience in a collective manner. We say that it is cyclical because again from practice new ethical problems will arise again and so on.⁴⁵ We theorise that a CoP can provide a space for mutual trust in which professionals can openly express their experiences, as well



Figure 1 CoP as a process to restore moral integrity and build collective moral resilience. CoP, communities of practice.

as share situations in practice that expose vulnerability, increase moral distress, frustration, or fear.

CoPs have the potential to build collective moral resilience by allowing a space to share ethical challenges. This sharing of experience allows for a shift in the relationship with a situation causing distress, through reframing of the mindset that the distressing experience is entirely negative. By choosing inquiry over frustration, the presence of trusted others allows for questions that explore possibilities and disrupt negative patterns of thinking. This allows for sharing of strategies to navigate ethically complex situations and for recovery from the challenge, enabling clinicians to adapt to ethically complex situations in the future. Building CoPs emphasises the importance of the role that culture and systems play in supporting clinicians' moral resilience, and can be a step towards building an ethical practice environment.

We hypothesise that CoPs provide a process to explore moral distress through social support and connectedness, and that this connectedness has the potential to generate practical wisdom. Allowing for this dialogue through CoPs also targets culture change in healthcare settings, increasing the understanding that resilience is a shared responsibility between the individual clinician and the setting in which they work. Improving collective moral resilience through CoPs may promote culture change towards a safe and ethical practice environment (figure 1).

In the context of the COVID-19 pandemic, a study of healthcare workers providing direct care for patients with COVID-19 showed that those reporting a strong social support network had a lower degree of stress and anxiety, and higher level of self-efficacy.⁵² Social support is also linked to resilience. It includes informational, instrumental and emotional elements⁵³ and reduces threat-related distress.⁵⁴ CoPs offer an opportunity for social support from peers who understand specific work-related factors. One example is Schwartz Rounds (https:// www.theschwartzcenter.org/programs/schwartz-rounds), which offers a multidisciplinary space for staff to reflect on their work together. A recent review found that participating in these spaces was associated with increased compassion and empathy from connectedness with peers.⁵⁵ A randomised controlled trial of physician's discussion groups showed reduced distress including depersonalisation, compared with physicians given protected personal time. 56

Greenberg *et al*²⁵ point out a series of potential mechanisms that can help to mitigate the negative moral effects of the current COVID-19 pandemic on healthcare professionals. Although the authors do not refer to the creation of CoP to help manage distress and moral damage associated with COVID-19, we consider CoP to be the optimal setting in which to develop these strategies:

- 1. Regarding early action, all healthcare professionals must be prepared for the moral dilemmas that they will face during the COVID-19 pandemic, since this can reduce the risk of mental health problems.
- 2. As the situation progresses, the team needs support to understand the morally complex decisions that take place.
- 3. Once the crisis is over, it is necessary to reflect and learn from extraordinarily difficult experiences to create a mean-ingful narrative.

The value that virtual CoP (CoPv) can have in a pandemic situation such as that of COVID-19 is undeniable. McLoughlin et al⁵⁷ pointed out that CoPv reduce hierarchical barriers and allow sharing information and learning from each other, although the development of trust within CoPv requires some face-to-face meetings to guarantee the development of relationships. The exceptional situation created by COVID-19, especially the global nature and rapid spread, has led professionals to create a virtual global scale kind of CoPv for learning about the shared problem of how to treat these patients. Healthcare professionals have had to process a large amount of information, which on numerous occasions has been distributed through social networks or virtual communities (which we could consider CoPv, given the way they have been articulated): a huge amount of scientific bibliography, action protocols of national and international centres, videotutorials and expert opinions.

In order to foster collective moral resilience in healthcare, it is necessary to provide some guidance on ideal characteristics when establishing a CoP to achieve this goal. Our examination of existing CoP shows that face to face discussions are most effective when discussing complex emotional and ethical issues. That is, compared with virtual discussion fora, the immediacy of thinking together via in person conversations about shared problems goes beyond information or resource sharing, to inclusion of tacit knowledge and subsequently, knowledge development.⁴⁵ Of course, in situations when physical distancing is mandated or recommended, virtual technology with video provides an alternate option that ensures safety and promotes accessibility. With respect to participants, CoP can be effective but may achieve different goals whether organised for a single profession vs multidisciplinary. There is value to both approaches, however, we support attempts to engage multidisciplinary professionals to address perceptions in providing care and foster camaraderie among the entire healthcare team. We can expect variation in levels of participation and amount of disclosure if participation in the CoP is voluntary or mandated by the organisation. There may also be opportunities for education and learning about specific ethical topics that arise, guided by experts. To allow for open discussion and participation, we have found through our experience that there are advantages and disadvantages based on the number of people able to participate in a discussion. In general, we encourage participants to attend routinely and consistently to foster trust and cohesion.

Challenges for education and innovation

It has been noted that bringing healthcare providers together and labelling them as a CoP does not necessarily mean it will function as one.⁵⁸ As mentioned, traditional CoPs in healthcare were intended for the learning and sharing of knowledge, and promoting evidence-based practice. Creating CoPs in healthcare that address ethical issues requires willingness of healthcare providers to share their dilemmas and distress, and think together about expertise from peers or facilitators to create a safe and supportive environment that focuses on growth and resilience from those ethical experiences.

The existing hierarchal culture of healthcare with its stigma about errors and failure remain a barrier to sharing dilemmas. There may be a lack of willingness for healthcare providers to share experiences for fear of judgement and appearing incompetent. The human dimension of medical error from the clinicians' perspective often includes guilt, fear and isolation.⁵⁹ Furthermore, the hierarchy within healthcare culture may further limit honesty and vulnerability. Challenges to communication in medical settings have been attributed to vertical hierarchy differences,⁶⁰ where one provider may be concerned about being incompetent or does not want to offend the other. Professions on the lower end of the hierarchy tend to be uncomfortable speaking up, whereas those on the higher end of the hierarchy may be uncomfortable expressing vulnerability and carry the responsibility of the decision on their own. Finding commonalities by focusing on common goals of learning, growth and the desire to better meet patient care needs may be one strategy to promote meaningful dialogue about challenging ethical issues with providers from different disciplines. These challenges can also exist within members of the same profession, thus our vision of CoPs as a process that builds trust between community members over time.

Education

Trainees may be particularly susceptible to moral distress and moral residue following challenging patient care experiences, given that they are often tasked with 'implementing plans of care over which they have little authority'.⁶¹ Given that moral residue is cumulative and can result in a 'crescendo' effect,⁶¹

establishing a culture of acknowledging and responding to this moral distress early would be expected to prevent the development of moral residue. Currently, there is a wide variation in the methods institutions use to address the moral distress that arises for trainees. Some organisations have a structure in place for a formal debriefing, in which a trained facilitator helps a team cope with the emotions of a challenging case.⁶² Many medical schools and residency programmes have developed wellness initiatives, though these are generally focused on mitigating burn-out rather than moral distress, and often take the form of personal exercises such as meditation and journaling.⁶³ Informally, trainees often cope with the challenges that arise by talking with trusted peers or mentors; the importance of these relationships is emphasised by studies that have found that loneliness is positively correlated with work-related burn-out.⁶⁴ To our knowledge, there are few institutions that have established CoPs for the purpose of ethical reflection for trainees.

Although faculty development for dialogical teaching in healthcare education is effective, implementation may be limited by time and space structural barriers.⁶⁵ Dialogical moments may be introduced in the moment of acknowledging suffering or distress, and introducing reflective questions or outlining moral dilemmas to stimulate curiosity and further exchange. A formal system in which CoPs are established for trainees and led by trained facilitators would create a space in which to build collective moral resilience. This could be an important and formative group for young clinicians, who face morally and emotionally challenging situations they may never have previously encountered, often with a degree of responsibility they are not accustomed to.

Role of the organisation and degree of involvement

Moral distress must be recognised and addressed not only among healthcare professionals, but also within systems and organisations. Otherwise, it is difficult for moral resilience to flourish in environments that do not emphasise a culture of ethical practice.¹³ There is a dearth of literature on organisational approaches to mitigate moral distress.^{[iv}]While organisational strategies to address moral distress have been mainly focused on individual ways to face it, less attention has been directed towards the organisational strategies to solve and manage these problems as collective issues. These strategies can be seen as pushing professionals to perform an extra effort on addressing these problems, while the responsibility of institutions to create an appropriate environment and culture which make possible the flourishing of resilience has not been sufficiently emphasised. To counteract the increasing problems affecting wellbeing of healthcare professionals, institutions have to implement structural and organisational strategies, with focus on collective actions.

To support healthcare practice, CoPs have been used. However, with regard to how CoP can contribute to support change at different organisations and levels of the system remains unknown. More research is required to discover how CoPs interact with formal structures within and between health

^{iv}There is increased understanding that occupational burnout is primarily a result of system factors and that addressing burnout is a shared responsibility between the individual and the organisation. See Shanafelt TD, Noseworthy JH. Executive leadership and physician well-being: nine organisational strategies to promote engagement and reduce burnout. *Mayo Clinic Proceedings* 2017;92(1):129–146. However, more work on the understanding of this shared responsibility regarding moral distress is required.

organisations, and how organisations take advantage of these CoP to build their internal knowledge assets. While the CoP functioned as a motor bringing together best practices, research, experiences and a thoughtful learning cycle, their efforts to stimulate changes in practice across the system found resistance due to cultural and organisational norms.⁶⁶ However, as Kothari *et al*⁶⁶ remarked, there is still a lack of literature on how to use CoPs to influence change in health systems. Exploring approaches to integration and interaction of CoPs within formal organisational structures is also needed.

Further efforts to implement and evaluate initiatives regarding the effectiveness of CoPs to build individual and collective moral resilience is warranted. As in previous efforts, we can anticipate variation with respect to composition and communication norms for CoPs. The ability of CoPs to address ethical issues, as well as an exploration of processes used to address these issues and build resilience can be evaluated further. Studying moral distress with validated tools such as the Moral Distress Scale, the ethical climate with tools such as the Ethical Decision Making Climate Questionnaire, and more recent the validated Rushton Moral Resilience Scale⁶⁷ can help to define an association between moral distress and moral resilience. Exploring qualitative data from participants may help define specific characteristics of a CoP that influence individual resilience and promote organisational culture change through collective moral resilience.

CONCLUSIONS

The negative effects that arise from difficult experiences that health professionals face as part of their everyday practice must be recognised to better prevent them. Many medical and nursing organisations are already taking steps to address the moral distress, psychological distress, and PTSD experienced by physicians and nurses, and many others need to integrate such support. Incorporating CoPs as a learning and sharing process to help strengthen team bonds, to overcome difficulties experienced as part of work, to develop coping strategies, and to foster not only personal, but also team resilience. Through CoP we aim to specifically recognise the system and organisation's responsibility towards shaping the working environment in a way that promotes an ethical culture of care for both the patient and the clinician. CoP may be an effective strategy to increase collective moral resilience of healthcare professionals. We encourage/ recommend:

- 1. Healthcare organisations and leadership should acknowledge and address the moral distress and ethical dilemmas encountered by healthcare professionals on a routine basis, and especially during situations of extreme stress such as the pandemic.
- 2. Healthcare organisations may consider establishing CoP as a process to build collective moral resilience and ethical practice environments, focusing on system and culture issues that contribute to moral distress and occupational burn-out.
- 3. The creation of CoP networks (national and international) that address moral distress and ethical challenges in health-care may be of great value, so that facilitators and organisers can exchange experiences, challenges and strengths.
- 4. Educational leaders involved with teaching students of healthcare professions may consider introducing CoP that foster dialogue and address ethical challenges in the early stages of training.
- 5. Further efforts to establish CoP may also explore their ability to improve individual and collective moral resilience, as well

as determine how CoP can integrate within the organisation to support health system change.

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REFERENCES

- 1 Austin W. The ethics of everyday practice: healthcare environments as moral communities. *ANS Adv Nurs Sci* 2007;30(1):81–8.
- 2 Jameton A. Nursing Practice: The Ethical Issues. Englewood Cliffs. NJ: Prentice-Hall, 1984.
- 3 Ulrich CM, Grady C. Moral distress in the health professions. Cham: Springer International Publishing, 2018.
- 4 Pauly BM, Varcoe C, Storch J. Framing the issues: moral distress in health care. HEC Forum 2012;24(1):1–11.
- 5 Oh Y, Gastmans C. Moral distress experienced by nurses: a quantitative literature review. *Nurs Ethics* 2015;22(1):15–31.
- 6 Webster G, Baylis FE. Moral residue. In: Rubin SB, Zoloth L, eds. Margin of error: The ethics of mistakes in the practice of medicine. Hagerstown: University Publishing Group, 2000.
- 7 Dean W, Talbot SG, Caplan A. Clarifying the language of clinician distress. JAMA 2020;323(10):923–4.
- 8 Litz BT, Stein N, Delaney E, et al. Moral injury and moral repair in war veterans: a preliminary model and intervention strategy. *Clin Psychol Rev* 2009;29(8):695–706.
- 9 Čartolovni A, Stolt M, Scott PA, et al. Moral injury in healthcare professionals: a scoping review and discussion. Nurs Ethics 2021:969733020966776.
- Rushton CH. Moral resilience: a capacity for navigating moral distress in critical care. AACN Adv Crit Care 2016;27(1):111–9.
- 11 Johnstone M-J, Hutchinson A. 'Moral distress'--time to abandon a flawed nursing construct? *Nurs Ethics* 2015;22(1):5–14.
- 12 Morley G. What is "moral distress" in nursing? How, can and should we respond to it? J Clin Nurs 2018;27(19-20):3443–5.
- 13 Rushton CH, ed. Moral Resilience: Transforming Moral Suffering in Healthcare. New York: Oxford University Press, 2018.
- 14 Fourie C. Moral distress and moral conflict in clinical ethics. *Bioethics* 2015;29(2):91–7.
- 15 Førde R, Aasland OG. Moral distress among Norwegian doctors. J Med Ethics 2008;34(7):521–5.
- 16 Allen R, Judkins-Cohn T, deVelasco R, et al. Moral distress among healthcare professionals at a health system. JONAS Healthc Law Ethics Regul 2013;15(3):111–20.
- 17 Milliken A, Grace P. Nurse ethical awareness: understanding the nature of everyday practice. *Nurs Ethics* 2017;24(5):517–24.
- 18 DePierro J, Lowe S, Katz C. Lessons learned from 9/11: mental health perspectives on the COVID-19 pandemic. *Psychiatry Res* 2020;288:113024.
- 19 Lai J, Ma S, Wang Y, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. JAMA Netw Open 2020;3:e203976.
- 20 Berlinger N, Milliken A, Guidry LK. Ethical framework for health care institutions responding to novel coronavirus SARS-CoV-2 (COVID-19) guidelines for institutional ethics services responding to COVID-19 managing uncertainty, Safeguarding communities, guiding practice. The Hastings Center, 2020.
- 21 FNOMCeO Federazione Nazionale degli Ordini dei medici Chirurghi E degli Odontoiatri, 2020. Available: https://portale.fnomceo.it/
- 22 Kok N, Hoedemaekers A, van der Hoeven H, et al. Recognizing and supporting morally injured ICU professionals during the COVID-19 pandemic. Intensive Care Med 2020;46(8):1653–4.
- 23 Sheather J, Chisholm J. Duty to treat: where do the limits lie? BMJ 2020;369:m2150 https://blogs.bmj.com/bmj/2020/05/12/the-duty-to-treat-where-do-the-limits-lie/

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- 24 Back A, Tulsky JA, Arnold RM. Communication skills in the age of COVID-19. Ann Intern Med 2020;172(11):759–60.
- 25 Greenberg N, Docherty M, Gnanapragasam S, et al. Managing mental health challenges faced by healthcare workers during covid-19 pandemic. BMJ 2020;368:m1211.
- 26 Morley G, Grady C, McCarthy J, et al. Covid-19: ethical challenges for nurses. Hastings Center Report 2020;50:1–5.
- 27 McGuire AL, Aulisio MP, Davis FD, et al. Ethical challenges arising in the COVID-19 pandemic: an overview from the association of bioethics program directors (ABPD) Task force. Am J Bioeth 2020;20(7).
- 28 Young PD, Rushton CH. A concept analysis of moral resilience. *Nurs Outlook* 2017;65(5):579–87.
- 29 Holtz H, Heinze K, Rushton C. Interprofessionals' definitions of moral resilience. J Clin Nurs 2018;27(3-4):e488–94.
- 30 Lachman VD. Moral resilience: managing and preventing moral distress and moral residue. *Medsurg Nurs* 2016;25(2):121–4.
- 31 Baratz L. Israeli teacher trainees' perceptions of the term moral resilience". Journal for Multicultural Education 2015;9(3):193–206.
- 32 Fineman MA. Equality, Autonomy and the Vulnerable Subject in Law and Politics. In: Fineman MA, Gear A, eds. *Vulnerability. reflections on a new ethical foundation for law and politics*. New York: Ashgate Publishing, 2013.
- 33 Fineman MA. Vulnerability, Resilience, and LGBT Youth. Temple Political & Civil Rights Law Review, Forthcoming. *Emory Legal Studies* 2014:14–292.
- 34 Oliver D. David Oliver: moral distress in hospital doctors. *BMJ* 2018;360:k1333.
- 35 Drury J, Cocking C, Reicher S. Everyone for themselves? A comparative study of crowd solidarity among emergency survivors. *Br J Soc Psychol* 2009;48(Pt 3):487–506.
- 36 Williams R, Drury J. Personal and collective psychosocial resilience: Implications for Children, young people and their families involved in war and disasters. In: Cook DM, Wall J, eds. *Children and armed conflict: Cross-disciplinary investigations*. New York: Palgrave Macmillan, 2011: 57–75.
- 37 Shen M, Al-Mondiry J, Shiff T, et al. Core Im podcast. Covid 19 reflections: Disconnections and connections. Available: https://www.coreimpodcast.com/ 2020/04/29/covid-reflections-disconnections-and-connections/?fbclid=IwAR0kc0 XbCK1YKJ2u5zHU7V0XIdPKHKDgq_esgExbkbLlsjRv5yl-clXn018 [Accessed 28 July 2020].
- 38 Lave J, Wenger E. Situated learning: legitimate peripheral participation. Cambridge: Cambridge University Press, 1991.
- 39 Wenger E, McDermott R, Snyder WM. Cultivating communities of practice. Boston: Harvard Business School Press, 2002.
- 40 Pyrko I, Dörfler V, Eden C. Thinking together: what makes communities of practice work? *Hum Relat* 2017;70(4):389–409.
- 41 Casado A, Uria E. Cultivando comunidades de práctica en La extensión universitaria: artes escénicas Y performativas en El campus de Gipuzkoa. *Periférica Internacional: Revista para el análisis de la cultura y el territorio* 2019;20:100–7.
- 42 Ranmuthugala G, Plumb JJ, Cunningham FC, et al. How and why are communities of practice established in the healthcare sector? A systematic review of the literature. BMC Health Serv Res 2011;11(273):273.
- 43 Wild EL, Richmond PA, de Merode L, et al. All kids count connections: a community of practice on integrating child health information systems. J Public Health Manag Pract 2004;:S61–5.
- 44 Huckson S, Davies J. Closing evidence to practice gaps in emergency care: the Australian experience. Acad Emerg Med 2007;14(11):1058–63.

- 45 Delgado J, de Groot J, McCaffrey G, *et al.* Communities of practice: acknowledging vulnerability to improve resilience in healthcare teams. *J Med Ethics* 2020. doi:10.1136/medethics-2019-105865. [Epub ahead of print: 24 Jan 2020].
- de Carvalho-Filho MA, Tio RA, Steinert Y, Twelve tips for implementing a community of practice for faculty development. *Med Teach* 2020;42(2):1–7.
- 47 Dekkers W, Gordijng B. Practical wisdom in medicine and health care. *Medicine*, *Health Care and Philosophy* 2007;10:231–2.
- 48 Aristotle. The Nicomachean ethics. translated by Ross, WD. Batoche Books Kitchener, 1999.
- 49 Edmondson R, Pearce J. The practice of health care: wisdom as a model. *Med Health Care and Philos* 2007;10.
- 50 Kumagai AK, Richardson L, Khan S, *et al.* Dialogues on the threshold: Dialogical learning for humanism and justice. *Acad Med* 2018;93(12):1778–83.
- 51 Pilkington B. Lessons from Covid: from moral distress to an interprofessional ethics community. Academy of Professionalism in Healthcare – Professional Formation.org newsletter 2020;3(8).
- 52 Xiao H, Zhang Y, Kong D, et al. The effects of social support on sleep quality of medical staff treating patients with coronavirus disease 2019 (COVID-19) in January and February 2020 in China. *Med Sci Monit* 2020;26:e923549.
- 53 de Groot JM. The complexity of the role of social support in relation to the psychological distress associated with cancer. J Psychosom Res 2002;52(5):277–8.
- 54 Hornstein EA, Eisenberger NI. Unpacking the buffering effect of social support figures: social support attenuates fear acquisition. *PLoS One* 2017;12(5):e0175891.
- 55 Marben J, Taylor C, Dawson J. A realist informed mixed methods evaluation of Schwartz center Rounds® in England. *Health Serv Deliv Res* 2018;6(37).
- 56 West CP, Dyrbye LN, Rabatin JT, et al. Intervention to promote physician well-being, job satisfaction, and professionalism: a randomized clinical trial. JAMA Intern Med 2014;174(4):527–33.
- 57 McLoughlin C, Patel KD, O'Callaghan T, et al. The use of virtual communities of practice to improve interprofessional collaboration and education: findings from an integrated review. J Interprof Care 2018;32(2):136–42.
- 58 Li LC, Grimshaw JM, Nielsen C, et al. Evolution of Wenger's concept of community of practice. Implement Sci 2009;4:11.
- 59 Delbanco T, Bell SK. Guilty, afraid, and alone--struggling with medical error. N Engl J Med 2007;357(17):1682–3.
- 60 Sutcliffe KM, Lewton E, Rosenthal MM. Communication failures: an insidious contributor to medical mishaps. *Acad Med* 2004;79(2):186–94.
- Berger JT. Moral distress in medical education and training. J Gen Intern Med 2014;29(2):395–8.
- 62 Rosenthal MS, Clay M. Initiatives for responding to medical trainees' moral distress about end-of-life cases. AMA J Ethics 2017;19(6):585–94.
- 63 Ziegelstein RC. Creating structured opportunities for social engagement to promote well-being and avoid burnout in medical students and residents. *Acad Med* 2018;93(4):537–9.
- 64 Shapiro J, Zhang B, Warm EJ. Residency as a social network: Burnout, Ioneliness, and social network centrality. J Grad Med Educ 2015;7(4):617–23.
- 65 Kuper A, Boyd VA, Veinot P, et al. A Dialogic approach to teaching Person-Centered care in graduate medical education. J Grad Med Educ 2019;11(4):460–7.
- 66 Kothari A, Boyko JA, Conklin J. Communities of practice for supporting health systems change: a missed opportunity. *Health Res Policy Sys* 2015;13.
- 67 Heinze KE, Hanson G, Holtz H, et al. Measuring health care Interprofessionals' moral resilience: validation of the Rushton moral resilience scale. J Palliat Med 2020. doi:10.1089/jpm.2020.0328