Situating 'best practice': Making healthcare familiar and good enough in the face of unknowns

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ARTICLE INFO

ABSTRACT

The relationship between 'best practice' as a set of evidence-informed principles and its actualization in situations of care has been the subject of significant critique across clinical and sociological health research. Precisely how 'best practice' gets done—in practice—is often not investigated in itself. Drawing from qualitative interviews with thirty-three healthcare workers involved in the care, management, and research of Covid-19 in a hospital in Sydney, Australia, we investigate how best practice is done in times of uncertainty and disruption, thus approaching 'best practice' as a situated concern. We find that care during Covid-19 is made to work as 'familiar' practice, 'good-enough' practice, and 'better' practice. Our analysis moves away from ideas of best practice as an act, prescription, or framework, towards best practice as processual and always in-the-making. Doing best practice is a situated yet iterative process of making care work in relation with what can be known, what can be done, and what can be done better (here, now, and for now).

1. Introduction

'Best practice' guides how healthcare gets done. The concept of best practice is often presented as a self-evident and readily understood category—a collection of rules, principles, and 'know how' that ensures the best quality of care is delivered. Yet the implementation of best practice in healthcare is also contested, open to interpretation, and constantly evolving (Broom, Adams, & Tovey, 2009; Greig, Entwistle, & Beech, 2012; Lambert, 2006; Timmermans & Angell, 2012). Arguably, these complexities are amplified when care contexts face limits or disruptions in relation to resources, expertise, and knowledge.

In this paper we approach 'best practice' as a situated concern and site of coordination in the delivery of good (or "good enough") care (Mol, 2006). Within this framing, best practice is adaptive and evolving in relation to its situation and held together as an assemblage of many diverse elements, effects, and practices (Andrews & Duff, 2019; Duff, 2014). Our paper investigates how best practice is made (and made to work) in healthcare. We explore the logics, practices, and affects that enable care to be done, including in times of uncertainty and disruption. To do this, we attend to the case of healthcare provision during the Covid-19 pandemic.

1.1. What is 'best practice'?

'Best practice' in medicine and healthcare is usually figured in relation with the paradigm of 'evidence-based medicine' (EBM), which is described as "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients" (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996). Best practice, then, is understood as the practical application of (best) evidence-informed decision-making in care. While these definitions appear straightforward, the relationship between best practice as a set of principles or guidelines and its localized enactment in specific care environments endures as a critical area of sociological concern (Berg & Timmermans, 2000; Broom et al., 2009). Advancing a range of critiques, which in their different ways invite varied responses, scholars have considered how the translation of best practice into individual clinical encounters is not a singular or straightforward process but rather requires a complex and situated negotiation of research evidence, organizational guidelines, practitioner expertise and experience, patient preferences, and other socio-material elements (Broom & Adams, 2012; Greig et al., 2012; Lambert, 2006).

The constitution of 'evidence' that is assumed to inform practice has been one area of focus (Broom & Adams, 2012; Lambert, 2006;

Mykhalovskiy & Weir, 2004). In deliberations of EBM, a hierarchy of best and better evidence is assumed (Greenhalgh, 2017; Lambert, 2006); yet best evidence is still open to contestation or alternative interpretation among experts and practitioners given the situation and context as well as differences in perspective regarding expertise (Greenhalgh, 2017; Greig et al., 2012). Here, the response is usually to invite deliberation on what counts as best evidence, to whom and why, with view to developing alterative constitutions of evidence and expertise (Broom & Adams, 2012; Lancaster & Rhodes, 2020). This requires consideration of whether approaches to and hierarchies of evidence-making are "fit for purpose" and how these might be adapted, especially in highly complex and dynamic health situations (Greenhalgh, Fisman, Cane, Oliver, & Macintyre, 2022; Rhodes & Lancaster, 2019).

Even when best evidence is generally agreed upon, it must be made translatable into practice (Timmermans & Angell, 2012). Best practice guidelines can support clinical decision-making, though this still requires practitioners to access and interpret the most up-to-date guidance in individual clinical encounters (Dawes et al., 2005; Grol & Grimshaw, 2003; Timmermans & Angell, 2012). Critiques of clinical guidelines note that socio-material factors such as resource constraints, practitioner skill, and personal or organizational expectations can all constitute barriers to this implementation (Grol & Grimshaw, 2003; Timmermans & Angell, 2012). Here, there may be a tendency to see the complexities of translating best practices into action given their contexts as a technical problem to be solved, especially through removing or adapting 'barriers' to successful implementation (Law & Singleton, 2005). Additionally, while overly prescriptive or universalized guidelines may not support individualized care practice, too much information can become overwhelming and impractical during clinical encounters (Berg & Timmermans, 2000; Greenhalgh, Howick, & Maskrey, 2014; Timmermans & Almeling, 2009).

Another critique of best practice is that best evidence is rarely, if ever, truly developed prior or external to its practical application; the lines between evidence and practice in clinical decision-making and care are therefore fuzzier and more entangled than ordinarily assumed (Green, 2000; Greenhalgh, 2017; Zuiderent-Jerak, 2015). Literature in the social sciences has called for a more critical approach to the premise and assumptions embedded in the paradigm of EBM, inviting an alternative, more 'practice-based' ontology to the constitution of evidence (Greig et al., 2012; Lancaster & Rhodes, 2020).

Best practice, then, is always to some extent a multi-faceted enactment (Greenhalgh, Howick, & Maskrey, 2014; Timmermans & Angell, 2012). Building on this body of critical scholarship, we suggest that the situated practice of best practice—in other words, how best practice is *practically worked in its particular situation*—invites further investigation. Taking the case of how best practice is done in situations marked by significant unknowns and profound disruption can help illuminate best practice as a situated concern, moving away from understandings of best practice as an act, prescription, or framework, and toward best practice as a *process*—as the coordination of many knowledges, expertises, and practices, which are iteratively made and remade in and through care (Knaapen, 2013; Latimer et al., 2006). We suggest the case of Covid-19 care as a site in which to investigate best practice as always "in-the-making" (Rhodes & Lancaster, 2019), as an emergent instrument of health and care in relation with what is possible, practical, desired, and needed in the situation of care.

1.2. Best practice in Covid-19

The event of Covid-19 has been presented as a challenge to 'best practice' on account of its unknowability, uncertainty, and scale of disruption (Greenhalgh et al., 2022). Qualitative studies into the experiences of healthcare workers early in the pandemic highlight intense workloads, resource constraints, and sudden or increased adoption of personal protective equipment (PPE) and remote consultations as influencing perceived physical and mental capacities for high quality care delivery (Harrison, Rhodes, & Lancaster, 2022; Whear et al., 2022). The literature also emphasizes ethical challenges in care practice due to uncertain and changing healthcare protocols, triaging and resource allocation decisions, fears about transmission within or beyond clinical settings, and barriers to providing patients with comfortable, dignified, and culturally appropriate death (Butler, Wong, Wightman, & O'Hare, 2020; Harrison, Lancaster, & Rhodes, 2023; Montgomery et al., 2023; Whear et al., 2022).

A significant focus of this research is the challenge of negotiating multiple sources of knowledge and expertise informed by emerging, anecdotal, and competing evidence (Kuijper, Felder, Bal, & Wallenburg, 2022; Williams Veazey et al., 2021). As one study summarized, the pandemic has required healthcare workers to "renegotiate professional standards and guidelines, [examine] unfamiliar terrain with their experimental and reflexive practices, and [learn] to deal with a new disease and new organizational circumstances" (Kuijper et al., 2022, p. 16). A notable response to the uncertainty surrounding best evidence and practice during Covid-19 has been the development 'living' guidelines, which are regularly updated as new research emerges (e.g., Australian National Clinical Evidence Taskforce, 2023; National Institute for Health Research, 2021; World Health Organization, 2023). While such guidelines have been generally well-received (Hewitt et al., 2023), these models remain vulnerable to many of the broader issues that arise in the production of 'best evidence' and its implementation into 'best practice,' including clinician awareness about recommendation changes, epistemic questions about what constitutes relevant 'evidence,' resource limitations, judgments about quality versus speed in assessing evidence, uncertainty about future health developments, and concerns about long-term sustainability (Cheyne et al., 2023; Clyne et al., 2023; Millard et al., 2022).

1.3. Best practice as a situated concern

Given the many complexities in implementing best practice in clinical contexts (both within and beyond times of pandemic), we therefore ask: what does best practice look like when 'best' is yet to be known, in flux, or challenged in its situation? Scholarship on care during disaster responses emphasizes that effective and ethical care in situations where material resources and time are limited requires resilient health infrastructures and diverse training, but also situational attentiveness to the complexity of the care context (Bongiovanni, Leo, Ritrovato, Santoro, & Derrico, 2017; Persad, Wertheimer, & Emanuel, 2009; Schwartz, Hunt, Redwood-Campbell, & de Laat, 2014). Practical decision-making is also complicated in healthcare situations where research evidence is considered to be absent, incomplete, or still-emerging, such as in cases of rare or novel illness or medically unexplained symptoms. Such ambivalences in medical knowledge and expertise require a pluralistic framing of best practice that accounts for the many experiences and stakeholders in health and illness (Armstrong, 2011; Jutel & Nettleton, 2011; Nettleton, 2006).

Approaches to clinical decision-making and care are troubled further when the notion of 'best' is a contested category due to social, ethical, and emotional investments. For example, sociological literature on end-of-life care accentuates that 'best' care is not always lifesaving or life-prolonging (Driessen, Borgstrom, & Cohn, 2021; Kirby, Broom, & Good, 2014; MacArtney, Broom, Kirby, Good, & Wootton, 2017; McNamara, 2004), while literature on distant and technologically mediated care argues that face-to-face clinical settings such as hospitals do not always constitute the best environments of care (Milligan & Wiles, 2010; Pols, 2012; Pols & Moser, 2009). Researchers have also highlighted ethical complexities in situations where what the care recipient or their community considers 'best' care might not align with clinical guidelines or judgment (Dunin De Skrzynno & Di Maggio, 2018; Edelist, 2016; Treloar & Holt, 2006). 'Best' care can also be realized through divergent practices, such as in cases where different therapies produce different 'good' outcomes (Mol, 2002, 2006).

Focusing on localized material practices enables a critical exploration of how care is enacted as an adaptive process that is made in relation with the material environment (Buse, Martin, & Nettleton, 2018; Latimer, 2018; Mol, 2002). Healthcare workers develop routines and attend to emergent problems in everyday care provision through responsive, iterative, and ongoing "tinkering" work (Mol, Moser, & Pols, 2010, p. 14). Here, best practice does not simply *work* as a fixed or stable construct (Andrews & Duff, 2019); rather, it is "*made to work* within the limits and potentials of its immediate situation" (Rhodes, Kyaw, & Harris, 2023, p. 7, emphasis added). *Best* practice can thus always be made *better* by attending to the specificity of the care context (Rhodes, Egede, Grenfell, Paparini, & Duff, 2019). To paraphrase Mol (2006), this requires a shift away from care as the implementation of *proven* best practice and towards *improving* care practice by attending to what isn't (or is no longer) working—and what could be made better. Best practices of care, then, are a becoming-with the situation.

2. Methods and approach

This paper draws on qualitative interviews with thirty-three healthcare workers involved in care, management, or clinical research related to Covid-19 at a hospital in Sydney, Australia. The study was developed as part of a broader multidisciplinary study investigating the effects of Covid-19 post-infection (the "ADAPT" study) (Darley et al., 2021). Ethics were approved by the hospital's human research ethics committee (2021/ETH11066). Interviews were conducted by the first author via video conferencing or telephone and audio recorded with consent, with recordings transcribed verbatim. Interviews lasted between 40 and 93 min with an average of 1 h.

Participants were recruited through internal communications, direct invitation, and word of mouth across a range of specialties including cardiology, infectious diseases, rehabilitation, thoracic medicine, neuropsychology, endocrinology, pharmacy, and other areas of acute and supportive care. Participants were doctors (n = 9), nurses (n = 14), allied health professionals (n = 8), or worked in management- and operations-focused roles (n = 2) and delivered or oversaw care across a range of contexts and seniority levels, including via telemedicine and home care services. Many participants in nursing, medicine, and allied health also had management, executive, education, or research responsibilities as part of their job. Due to the localized context of the study sample, quotes are identified by participant number (in brackets) with descriptive details about professional roles only included where directly relevant to our analysis.

Interviews were conducted between November 2021 and August 2022, and investigated participants' experiences during the Covid-19 pandemic with a focus on approaches to and practices of care. The first interviews were carried out in the days preceding the reporting of the Omicron (B.1.1.529) variant of SARS-CoV-2 to the World Health Organization (World Health Organization, 2021). By this point in time, approximately 90% of the Australian population over the age of 12 years had received two Covid-19 vaccinations, with frontline healthcare workers having been eligible for priority vaccination since February 2021 (Australian National Audit Office, 2022). In a little over a month following our initial interviews, the daily case numbers in the state in which our participants worked had increased 200-fold (NSW Government, 2022). By the end of interviews, these reported case numbers had decreased but hospitalizations, intensive care cases, and deaths due to Covid-19 had reached another peak (Australian Government, 2023). The period of our interviewing thus reflects a time in which both vaccination coverage and the impacts of Covid-19 on the state healthcare system were at notable heights.

Our analysis develops three thematic areas of concern regarding how 'best practice' in conceptualized and enacted in clinical care delivery (Charmaz, 2006). These concerns are encapsulated in the following three questions: how is care done when 'best practice' is unknown?; how is care done when 'best' practice is not possible?; how is 'best practice' adapted to better suit the care situation? To investigate these thematic questions, we explore the situated practices through which care has been enacted as familiar, good-enough, and better, and how these have enabled care to be done during the Covid-19 pandemic.

3. Findings

3.1. Making care familiar

Across our interviews, participants described Covid-19 as a "new disease" (14,23,24,28) and the Covid-19 context as a "brand new world" (3) in which specific protocols and guidance for best practice were often unknown or still-emerging. Despite these uncertainties, the ways in which Covid-19 *care* was performed as 'new' varied between (and within) interviews. As one participant summed up: "It's new, but it's not new" (17). Healthcare workers responded to insufficient knowledge and procedural guidance during the pandemic by relating Covid-19 to experiences and expertise in familiar and comparable disease and care contexts: "Well of course I am scared of getting infected, I am always scared of getting any infection when I go into an infectious disease situation, that's why PPE exists" (7). Diseases that could be transmitted via air were particularly relevant here:

> When we have had [tuberculosis] and other conditions, there [are] very strict rules on what you do and don't do with that and so it was rolling back to those. Well, I don't want any aerosol generating procedures so that's actually going to take away four or five techniques and I will do other things instead, and if [they] cough, we'll do the normal precautions. (7)

Knowledge and experience of best practice procedures were spoken about as *directly transferable* from other disease contexts. For example, many participants had previously undergone training to prepare for potential disease outbreaks in the past and were able to adapt and apply those guidelines and strategies to Covid-19.

> We went through all of this with SARS-1, and we went through all of this with H1N1, […] we were all practicing donning and doffing our Ebola PPE. (17)

> A big group of physios [developed a] guideline based on sort of what we knew from swine flu and SARS and […] we adapted some pre-existing intensive care training courses with some specific modules around managing SARS or ARDS. (21)

These transferrable practices were also described in the context of best care for Covid-19 itself. In the absence of specific best practice guidelines for Covid-19, participants relied on "instinct" and "judgment" (14,22,32). One participant described this process as "keeping my mind open for new information, […] reading the literature and staying up to date, and trusting my judgment and respecting my experience and the experience with my colleagues" (14). Across interviews, a notion of "normal everyday practice" (27) was mobilized as a flexible set of principles that could be applied to individualized care interactions. For example, one respiratory physician explained: "You could say, 'this person has a severe viral pneumonia. We've done this a lot before and we know to look for all these complications, we know how to support them'" (14). Care for Covid-19 was thus realized through the isolation of specific illness effects for which best practices of care were *already known*: "You don't necessarily need to be *perfectly sure* as to why the person is breathless, you just need to figure out what we are going to do about the breathlessness" (21). In this way, incomplete and imperfect knowledge was managed by situating practice in relation with what 'needed' to be known for care to be done.

This strategy of focusing on the treatment of familiar symptoms also extended to post-acute care of Covid-19. Participants working in rehabilitation and physical therapy compared this long-term care to that of other conditions such as chronic fatigue syndrome, multiple sclerosis,

and stroke:

> We are very used to doing holistic reviews of the patient […] We don't seek the cause of the symptoms. We simply treat the symptoms with a focus on getting people back to work, back to looking after themselves independent[ly]. We all have been treating all the symptoms of Covid [since] the 1950s. (5)

The long history of care work mobilized through this account illustrates how making care familiar practically affords the doing of care. In other words, the narrative of 'new, but not new' care is not simply a retrospective justification of care decisions; it functions as an enabling logic that underpins the evidencing and doing of care practice.

Long-term Covid-19 care was also made familiar through clinical diagnosis. Though many participants referenced clinical definitions of "Long Covid," the condition was described in interviews as less clear-cut in practice. Instead, naming "Long Covid" required processes of "investigation and interpretation" (24). This too was presented as a familiar part of care provision:

> If you talk to respiratory physicians, they will tell you that asthma is not black and white and it's actually quite a diverse spectrum. […] But when you give a label of asthma, people know what you are talking about and it's helpful for prescribing and treating and understanding, and in the same way, giving a patient a label of Long Covid I think is useful in that regard as well. (24)

Diagnosis thus functioned to make "Long Covid" knowable and something that can be cared for.

Participants emphasized that *all* care provision was built upon basic principles of "empathy," "openness," and "support" (19). These foundations constituted fundamental tenets of care practice that remained stable even in the face of fluctuating uncertainties: "It's not Covid care really, it's patient care. […] It's about getting them back to health in simplistic terms, and that's what I apply to any disease really" (24).

This holistic approach also applied to how healthcare workers navigated a personal sense of risk. For example, several participants noted care provision during "the early days of HIV" (26) as a helpful point of comparison regarding the uncertainty of SARS-CoV-2 transmission, especially when it came to managing stigma and fear: "People thought even if they ate the same food or if they were in the same room […] that everyone would get HIV" (26); "I was in a country town […] and the ambulance […] would not even go there thinking that it's that infectious" (1). These accounts were presented as a warning against injudicious responses to uncertain health situations:

> I think my background [with HIV] meant that I never really had an issue with infectiousness. [Covid-19] was an infection, okay, there was a proportion of people that would become severely unwell but that wasn't foreign to me. […] It needed response, it needed improved prevention and treatment strategies, but in some respects, it's another sort of public health issue we have to deal with. (19)

In these examples, past experiences in HIV care did not enable healthcare workers to develop *specific* knowledge about how to approach Covid-19 care. Instead, the uncertainty and potential risk of these experiences was presented as a reassuringly normal aspect of care provision: "It's part of what we do. I mean, we are exposed in different ways as healthcare workers and sort of what we take on" (19). Uncertainty was thus reframed as a familiar feature of healthcare in general, rather than being unique to the Covid-19 context: "Practicing clinicians are used to dealing with uncertainty. That's what we do all day" (17). The newness of the particularities of Covid-19, then, is moderated through narratives of familiarity and similarity which enact a hinterland of healthcare response.

3.2. Good-enough practice

A common concern expressed across interviews, especially by nurses who worked in Covid-19 wards, was that what would ordinarily be considered 'best practice' was not always possible in the pandemic context due to insufficient knowledge and resources. Instead, healthcare workers had to prioritize what *could* or *needed* to be done: "We would only address urgent needs. […] We just felt like we were trying to get by" (20). This approach was framed as a "disaster" model of care (1,26,29,33). One participant described how this worked in practice:

> We set aside our normal management structures, […] we would have daily updates to all staff, daily huddles in the morning of all the managers, what are the problems, what are the issues on the radar, what needs to be sorted today, what's the highest priority, what risks are we facing. (26)

This model was described as applying to other urgent mass casualty or injury events such as train crashes, bushfires, and floods. For example, one participant explained the logistics of emergency care following a 1994 bushfire disaster:

> We were treating 3000 major burns and we didn't have to close any hospitals down. [There was a Sydney boarding school] that was closed down for Christmas, we utilized the 900 beds there as a hospital for staging people. […] We ended up with a 24-hour service going on there for about a month and a half, which then saved any impact on our public hospital system, or reduced the impact. (1)

The participant compared this event to the expansion of health services such as testing clinics into the community during Covid. Here, both the bushfire and pandemic constitute situations requiring alternate approaches to managing care. However, others argued that disasters ordinarily have "short-term" (33) impacts on the hospital, in which "[you] manage the disaster, you pull away, the disaster is over" (29). This model became "more difficult" to sustain over time as healthcare workers became "tired" and "the people who were there at the beginning who were very experienced [had] to move on" (33). One participant working in emergency and intensive care told us: "It's still going 3 years in, staff are still at a height level of working in disaster mode and there is no relief, there [are] no staff, there are more patients" (29).

These challenges speak to a broader question expressed in various ways across the interviews: "Are we doing enough?" (3). Several participants described cases where a hypothetical 'best' practice of care did not line up with what was practicable given the limitations and needs of the Covid-19 context. For instance, one physiotherapist described investigating new multidisciplinary approaches to providing in-patient care for people experiencing long-term effects of Covid-19, which were ultimately not taken up. They said:

> I think we dealt by just admitting that it was becoming too much, because it was becoming very time consuming. There was a very big difference between the acutely unwell and the ones that were just going to be sitting there until they de-isolate or get well enough and we couldn't cover both. (7)

The above example highlights a gap between what *might* be a better approach to care and the care that *could be done*. This gap also appeared in situations where what was normally considered best care was no longer practical. Participants described having to "relax" some "standards" (26) and constantly evaluate what was possible within the Covid-19 context. This required them to accept that sometimes they could not "offer [the] same level" of care they were used to and instead needed to "scale it back" (12):

> We're used to providing this gold standard of care, but we actually can't do it. In a crisis, we just had to liken it to a battlefield, you know? You're looking around and you need to triage who's in front of you and who you're going to treat first. (12)

> We've got all these people that I am supposed to help care for and I can't. […] It makes me feel like I am not really achieving what I would like to achieve for the patients and staff. (29)

One area in which nurses in particular described feeling they had scaled back care was in their social engagement with patients. This was sometimes due to barriers related to PPE ("I can't connect to the patients on the same level […] because we can't see the face properly and all the emotions") (4) and was sometimes due to being "overwhelmed" (12,15) and having "no time to properly talk" (4):

> The care wasn't limited, we were still being good nurses, but that drive to have conversations with patients when they couldn't hear us, […] I didn't want to have those conversations. I was taxed, they couldn't hear me, I was like, "no, I can't be bothered." [I would] provide my adequate nursing care, but all the extras, I felt like I didn't have it in me. (15)

In these examples, care does not become 'inadequate'; it is instead responsive in its situation and performed within the limits of what is considered practical and reasonable in the moment.

Infection prevention and control measures in the hospital presented other challenges to care, especially in Covid-19 wards. Entering the wards required donning fresh PPE and opening multiple "heavy duty" doors, which was "extremely exhausting" (16). Because of this, ward nurses tried to limit the number of times they moved between spaces. CB radios and whiteboards were used to communicate across distances and some rooms had zip-up pouches for passing medication or small equipment from the outside. Care clustering also allowed healthcare workers to manage their time within the wards better: "[You tried to] time all of your tasks that you had to do like vital signs and that with breakfast and with meds. […] You became very time and task orientated" (10). One nurse described briefing newer nurses on the ward not to drink too much water before their shift to reduce the need to urinate (as this would require removing PPE): "If you needed to wee, you would just think to yourself, 'hold on, another hour, another hour, another hour'" (9).

These strategies were framed by participants as "not perfect" (27), but ultimately enabling the most important care tasks to be done. What counted as a 'normal' care task for participants was also in flux during this time, especially for Covid-19 nurses who took on many of the roles usually performed by clerical and auxiliary workers in the hospital.

> Nurses were cleaning bed spaces, nurses were giving out food, nurses were doing pretty much everything because no one wanted to come in and everyone was like, "it's not our responsibility." (27)

Covid ward nurses described this extra work as something that "just had to be done": "[It's] fight or flight, you just push through." (15).

Even with these strategies, there were times where the care that was possible in the moment was not felt to be 'enough,' as in the following example from an ICU nurse:

> If a patient was in cardiac arrest you had to put on your PPE properly and be checked before going into that room, knowing that the patient may not have a rhythm. […] Then obviously you would do compression-only CPR, there was a lot of challenges with communication if the door was shut, you are only allowed two staff in the room at a time until ICU got there. […] You do think to yourself, if they received the normal [basic life support] versus the Covid [basic life support], would the outcomes be different? (9)

The above account illustrates how 'best practice' in one area (i.e., infection control) can constitute a barrier to 'best practice' in another (i.e., life support). In another example, a nurse described an incident following a psychiatric patient being moved to a Covid ward where the nurses on the ward were not trained to care for psychiatric patients:

> [The patient] lit the sheets on fire and at that time we were highly flammable because we have got so much oxygen pumping into the ward and we were on negative pressure. [I thought], "oh my God, […] what's the plan here?" because by the time security gets in, they've got to don so it takes all of them certain amount of time. […]

> In the end he got asked to go and isolate at his parents' home and he was escorted by the police. […] It just got to the point where we were like, "we are exhausted, we cannot deal with this anymore, something has to be done," so that's where they sort of said, "okay, he has got to go, we have to come up with another plan for this man." (16)

In the two accounts above, participants describe situations in which 'best' held a more ambivalent position when it came to the health and safety of both patients and staff. Such cases required healthcare workers to make a judgment call about whose wellbeing should be prioritized.

Many participants identified instances when care decisions needed to be made in the absence of specific guidance for best practice. This was sometimes approached with a sentiment of "trust" (7,10,15,31) or even "faith" (13,16,25). There were also times when decisions had to be made without any obvious good outcome:

> "Sometimes you go, 'Well, you know what, it's just, we'll make the decision and we'll apologize later.' But what's the risk […] to patient safety and staff safety and well-being if we do that?" (26).

Decision-making in these instances was described as a process of eliminating as much risk as possible, then "cross[ing] your fingers and hop[ing] that things go well" (16):

> No one can do everything and it's just a matter of working out where is the point in which you think it is safe and appropriate to then hand over care. […] You do the best you can possibly do and hopefully you tick all the things that need to be done safely. (29)

The pressure of these decisions was stressful for many participants: "I just feel like I go to work and put out fires all day and there are so many fires that I have missed and that's quite difficult to deal with" (29). However, the ability to make difficult decisions in uncertain contexts was also described as a potentially "empowering" (15) experience:

> It was simple things [that] would come up every day during the teething stages where it was like, hang on, we don't have a policy about that, we don't have a protocol, we need to actually just use our common sense now. (15)

Here, "common sense" functions as an instrument of best practice that enables healthcare workers to problem solve and adapt care in its situation. This pragmatism also enabled healthcare workers to navigate uncertainties relating to a lack of "long-term data" (28) about emerging therapies and practices by "weighing up the benefits versus the risks" (26,28): "We didn't know what Covid-19 was […] but we knew that around the world people were dying and they were dying en masse" (28). We can thus think of 'good-enough' practice as enacted at the intersection of what can be *known* and what can be *done* in the situation of care.

3.3. Making better practice (now and over time)

A major concern during the pandemic has been the "flurry" (14) of new and frequently changing information relating to best evidence and best practices of care. This "information overload" (7,26) presented practical challenges to the implementation of care:

> Usually, it takes us forever to generate evidence, think about it for a while, and then think about translation and implementation. All of a sudden, […] people wanted it to happen at light speed, they wanted to know the information, they wanted to feel reassured that it was valid, and that we could rapidly implement practice change in response to that. (26)

Some participants also spoke of varying "levels," "tiers," "strengths," or "classes" of evidence (6,19,26,32) that were often assessed in relation to established hierarchies of evidence (e.g., "retrospective review [versus] a consensus opinion [versus] a Class I randomized, rate-controlled, double-blind […] trial") (26). In the early days of the

pandemic, participants described basing "operational and clinical decision-making" on "some of the lowest levels of evidence" (26), as this was all that was available.

Several participants framed the practice of care in the absence of "best evidence" (23) as a form of "troubleshooting" (3,8,10,15,11) in which care was made to work better through progressive trial and error: "There were just so many little things that […] weren't in a policy, weren't in a protocol" (15). Consider the following example of managing an exposure event in the hospital:

> Perhaps there's an unrecognized patient in emergency […] and their test comes back positive, and you realize you've had 10 people in that resuscitation. Half of them weren't wearing their masks properly, and then there's adjacent patients who potentially were exposed. […] We've got to risk assess every exposed person. We've got to work out what follow-up they need. We've got to work out are they safe to stay at work or do they have to be furloughed? Their adjacent patients, do they need single rooms? Do they need follow-up testing? […] What if they're going back to the nursing home? What if they're going back to a supported accommodation setting? (17)

This troubleshooting was complicated further in cases when 'normal' best practices of care (e.g., for otherwise comparable diseases) did not produce the same outcomes for Covid-19 patients. For example, several participants described learning to identify specific warning signs in Covid-19 patients and adapting their care accordingly:

> Patients' respiratory rate was very important. It wasn't estimating or counting for like 10 seconds or 15 seconds. It was like you were counting for the full 30 seconds or 60 seconds. […] Normally, we'd never check a patient's exertional sat[urations], but we were getting patients up and walking them and seeing what their oxygen changed to because patients would be fine sat down in bed, but then they'd get up and walk to the toilet and drop quite significantly. (10)

Troubleshooting and problem-solving became ways of identifying and implementing small changes in best practice to make it better. This 'making better' of best practice also had rippling effects beyond the specific care of Covid-19. For example, one participant told us that prior to the pandemic, the health industry was considered "exempt" (26) from national standards when it came to regulatory requirements for respiratory protection and mask fit testing. Covid-19 changed this:

> Every other industry where there's a risk of any sort of exposure in the workplace to chemicals, dust particles, has had formal respiratory protection programs and requirements for fit testing. […] Health initially said, "no, no, no, we don't have to do that," […] and then all of a sudden there was this shift in the narrative to, "oh, actually, yes, we probably do need to do that because we could be open to people making claims that they weren't properly protected in the workplace." (26)

In this case, best practice was made better through the adaptation of existing best practices from other industries. While the pandemic did not *produce* the need for these better practices, the transmissibility of SARS-CoV-2 enabled this need to be *made urgent* and therefore actionable at scale.

The 'new-ness' of Covid-19 also disrupted hierarchies of expertise in the hospital, as the most 'experienced' healthcare workers when it came to Covid-19 were often the nurses who worked in the wards. As such, several participants emphasized the importance of involving nurses in multidisciplinary collaboration and decision-making: "All the Covid doctors were very good at working with the nurses, and they knew that if something was changing […] they could rely on the nurses to actually pick up on things" (10). This adaptive approach to expertise also underpinned the implementation of evidence in practice. Indeed, even when specific protocols were established, 'best practice' was approached as something lively that must be made to work:

> I'm all for evidence-based practice. You know, if it's not working, […] you change the practice. […] There's always times where this is what it says in the books that you do, but you know that's not going to work with that patient, so you just have to adapt. […] You have to think about the patient and sometimes […] you're not doing exactly what everybody is being taught to do. (13)

Care was made to work day-to-day through attentive and responsive adaptations in practice, which sometimes necessitated going "outside the guidelines" or approaching best practice with "some creative flexibility" (17). Even in such cases, there were "pathways put in place" to support decision-making:

> There was a Ministry expert panel you could refer to, and you could obviously just discuss with your colleagues, and that's one of the good things about hospital-based practices, […] you can just say, "hey, I've got a tricky one, guys, what do you reckon?" […] To some degree, you take the cure from the patient's preference. […] The straightforward ones are straightforward. The grey ones, you take advice from everyone. (17)

Participants emphasized that responsive and adaptable care practice required "more flexible" (21,33) regulatory frameworks. However, "extremely flexible" models of care were also described as "not ideal" (16). Instead, flexibility needed to be balanced with "efficiency" and "governance":

> There's been some good teams and mechanisms developed in the Ministry of Health, [but] a centralized approach is not always going to manage the complexity of what we need to deal with in the healthcare system. […] I think the good thing would be if the simple things that are going to enable efficiency can be retained at a central level, that people still have the autonomy to deal with the complexity and the variation in presentations. (33)

The increased workload during the pandemic produced a need for more "streamlined" (12,13,27) approaches in which processes that had come to be seen as unnecessary were identified as a "waste of time" (13) and eliminated. For example:

> We get a call saying, "[A delivery] doesn't have their date of birth" or "It doesn't have if they're male or female." And we'd go, "Well who cares?" […] People learned and made suggestions, and people listened to people. That's the thing. People saying, "We shouldn't be doing this," and then the answer would be, "Oh, yeah, well, you're right. We won't do that. We'll only do this work." So, just evidence-based practice, that's what it is. (13)

Being able to "pivot," "collaborate," and "step [outside] silos" (6,11,10,17,24) were also identified as important "soft skills" for working within "complex" health organizations (17). One participant reflected:

> Health is traditionally really slow at making decisions [but in Covid] we learned that we could actually make good decisions really, really quickly. […] We shouldn't lose that ability. We shouldn't revert back to the business as usual where we take forever to make decisions or generate evidence or translate evidence in practice. […] We actually can do this. (26)

Over time, many of the challenges of care provision during Covid "became a lot easier and more normal" (15). However, many participants emphasized that this was not a *return* to normal but instead a move toward a "new normal" (7,15,32):

> Everyone is trying to be like business as usual, which I get, but I also hate because it's not, […] it is going to be a new normal. [It is] reviewing the processes to go, "what are we keeping, what are we discarding moving forward, because this is not going away." (7)

It's [business as usual] *with* Covid. That is returning to normal. It's not [business as usual] pre-Covid. That's not going to happen. […] So, how do we return to routine regular day-to-day stuff in the context of managing Covid? (26)

These accounts accentuate that 'best' practice in the moment of care changes over time, not simply as a *response* to the evolving care context, but as an adaptive and iterative process of *working with* the care context. This further reflects a shift in how care during Covid has been made familiar over time: no longer through its relational connections with other or previous 'normal' care, but as something that itself is becoming ordinary and habituated through experience and routine.

4. Discussion

Let us return to the definition of 'best practice' we offered at the outset of this paper: *the practical application of best evidence-informed decision-making in care*. As our analysis attests, there are several ideas within this definition that must be negotiated in each care encounter. What are the 'decisions' that must be made and what is the 'evidence' that might inform them? What can be 'practically applied' in the given context? What would be considered 'best' in this situation (and similarly, what would be considered 'care')? This requires complex, adaptive, and situated processes, which bring scientific knowledge and technical skill together with local or embodied knowing (underpinned by collective experience, emotion, and cultural understanding) (Greenhalgh, Stones, & Swinglehurst, 2014; Montgomery, 2006; Ransom, Grady, Trepanier, & Bain, 2023).

These processes were described across our interviews in terms of 'common sense,' 'clinical judgment,' 'interpretation,' and 'instinct.' These modes of practice (re)make the limits of knowability, practicability, and acceptability in best practice in relation with the needs of the care situation, here and now. This accentuates that best practice is more than the translation of best evidence into practice—it is the coordination of theorized knowns with experiential knowledge and the material present of care. Best practice is enacted as the care that can be done within the limits and affordances of what is *needed* but also what is *knowable* in the moment of care (Lancaster, Rhodes, & Rosengarten, 2020). In this way, uncertain care is not careless work; rather, it is responsive, reasoned, and always evolving. It is made-doable by bringing knowing into practice and bringing practice into knowing.

This approach to care is also neither new nor unique to situations of emergency and disruption. Indeed, this doing of knowing with practice resonates with notions of 'practical wisdom' or 'practical reasoning' in healthcare as adapted from Aristotle's concept of *phronesis,* which have been taken up elsewhere in analyses of clinical decision-making (Human, 2011; Jordens & Little, 2004; Peiris, Usherwood, Weeramanthri, Cass, & Patel, 2011). As Kathryn Montgomery writes:

Medicine's success relies on the physicians' capacity for clinical judgment. It is neither a science nor a technical skill (although it puts both to use) but the ability to work out how general rules—scientific principles, clinical guidelines—apply to one particular patient. […] As an interpretive, making-sense-of-things way of knowing, practical [reasoning] takes account of context, unpredicted but potentially significant variables, and, especially, the process of change over time. (Montgomery, 2006, pp. 5, 33)

It is worth noting that scientific principles and clinical guidelines are also situated and adapted; however, once they are made and enacted as statements of best practice they become (momentarily) fixed as well as detached from their situations of making, such that they perform as external or prior to their implementation. Bringing Montgomery's description of clinical judgment in practice to bear on our case, we argue that 'best practice' is not the 'principles' or 'guidelines' of care themselves, but rather, a processual enactment of care through practical reasoning, in its situation and over time. In this way, the care context is

made *certain-enough* to afford best practice *here* and *now* and *for now* (Lancaster et al., 2020).

Of course, making Covid-19 care familiar through its partial connections to a hinterland of care does not mean that healthcare workers have not also experienced illness, death, and other pandemic effects, including due to infection prevention and control uncertainties such as inadequate information and resourcing (Williams Veazey et al., 2021). The geographic and temporal situation of our interview generation has also been an important consideration in our analysis; while widespread vaccination and greater knowledge of Covid-19 illness and care have necessarily shaped how uncertainty was negotiated through participant accounts (in both reflections on the early pandemic and discussion of the contemporary Covid landscape), rising hospital admissions and the recent discovery of the Omicron variant further complicated what was 'known' in Covid-19 care provision. Our analysis thus accentuates the ongoing and vital work performed by healthcare workers in delimiting uncertainty through the identification of what *can* be known in unfolding health situations—through emerging evidence but also practical reasoning. The translation of practices and protocols from tuberculosis care is one such example of this reasoning work.

What is important here is the distinction between being "perfectly sure" and being certain-enough to act. Our case exemplifies how 'certain-enough' care is enacted via the epistemic and affective rhetoric of 'familiar practice'; or, practice that is already known or felt to 'work.' This highlights the dual function of familiarity in uncertain care practice. Familiarity operates as a form of experiential knowledge, which is enacted through practices of clinical judgement and common sense reasoning (Green, 2000; Norman, Young, & Brooks, 2007); familiarity also constitutes an affective heuristic in decision-making, enabling healthcare workers to come to know a situation through feeling (Smith, Burkle, & Archer, 2011). Together, these epistemic and affective affordances generate a sense of security that enables the doing of care, particularly in 'new' and uncertain care contexts (Harrison et al., 2023). Here then, the narrative of familiarity, and of similarity or connection to a hinterland of knowledge and experience, performs a path of certain-enough action.

Our case study highlights several ways that healthcare workers have made Covid-19 knowable in its relations with familiar objects and environments of care—be that through comparable diseases, transferrable practices, principles of evidence implementation, contexts of uncertainty in general healthcare, or the habitual processes through which Covid itself becomes familiar (a 'new normal'). This making-familiar of Covid care has further been realized through processes of collaborative problem-solving, which were performed throughout participant accounts not only as a navigation of the problem being cared for, but of expertise and knowledge; in other words, as an investigation of who *could* have relevant knowledge and expertise, and how that could be decided.

This calls attention to another important finding from our analysis: that situated, complex, and flexible approaches to care practice do not necessarily preclude hospital efficiency. Similarly, healthcare workers can draw on prior experiences, engage with communal knowledges, and attend to aggregated hospital concerns without producing a universalizing care practice (Zuiderent-Jerak, 2015). This was not always achieved (or done perfectly) by healthcare workers in our case study. However, as our analysis attests, care during the pandemic has frequently been enacted as an ongoing process of working out how to work best (and better) together.

To conclude, we reflect on a question that was addressed (in various ways) throughout interviews in our study: what happens when things do not go to plan? Our case reveals moments of care being scaled back, changes to and deviations from established protocols, practices of trial and error, care delivered in the absence of sufficient knowledge, and in-the-moment decision-making around what processes count as 'necessary.' Each of these arguably constitute examples of best practice not going to plan. Yet in approaching best practice as a situated concern, we

view these practices as a making-together of the problem and the intervention of care; a plan that is in-the-making in and for the moment. In other words, rather than best practice constituting guidelines that *solve* or *avoid* problems through their implementation, best practice is the ongoing practice of making problems and practices together and in relation with many forms of knowledge, expertise, and evidence (Rhodes & Lancaster, 2019; Zuiderent-Jerak, 2015). Our case accentuates that best practice cannot be neatly translated or implemented according to a pre-defined 'plan,' but is instead always enacted through processes of experimentation and adaptation in the situation of care. Doing best practice, in practice, can thus be summed up as a situated yet iterative process of making care work in relation with what can be known, what can be done, and what can be done better (here, now, and for now).

Funding

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

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