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The impact of COVID-19 on health care professionals who are exposed to drug-related deaths while supporting clients experiencing addiction

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ABSTRACT

Introduction: This paper explores the impact of the COVID-19 pandemic on health care professionals who support clients experiencing addiction. During the pandemic, addiction support became more challenging, as existing health care models had changed or been completely abolished. Clients continued to engage with social, justice, and health services in limited capacities, connecting with general practitioners, key workers, homelessness support workers, and other service providers. This marginalized population was among the most high-risk groups for adverse health outcomes during the pandemic and understanding the associated implications for practitioner well-being is crucial.

Methods: Fifteen health care professionals who work with active addiction in homelessness, public health, addiction, emergency medicine, and other areas participated in individual semi-structured interviews. Data analyses utilized reflexive thematic analysis.

Results: Four core themes emerged from the analysis: (i) Shift in Priority, (ii) Being Left Behind, (iii) Managing a Death, and (iv) Anxious Environment. Within each core theme, associated subthemes provide further context. The COVID-19 pandemic had a significant impact on the well-being of clinicians who work with people who use drugs, fostering a more anxious environment and compounding what can already be a high-stress occupation. Participants exhibited high levels of concern for the well-being of clients, and uncertainty permeated throughout conversations. Furthermore, staff expressed concern for their own well-being in the long term due to the inability to process adverse events, such as a service user's death, due to the chaotic nature of the pandemic.

Conclusions: This paper highlights some areas of concern to address for future service delivery and presents opportunities to future-proof services as the world moves toward hybrid models of working. The inflexibility of service provision during the pandemic and the digital divide due to public health measures pushed marginalized groups further into the margins, with significant implications for practitioner occupational well-being due to feelings of anxiety, powerlessness, and concern for mortality of clients. This study collects a broad scope of experiences across disciplines in health care and demonstrates how professionals navigated unprecedented circumstances.

1. Introduction

The declaration of the SARS-CoV2 virus outbreak as a pandemic in March 2020 created unprecedented challenges for health care professionals worldwide. For example, routine health care demands were exacerbated by the need for strict screening processes and social distancing requirements (Gavin et al., 2020). Turnover rates worldwide during the pandemic were at comparatively high levels (McConnell, 2020), leaving many health care settings substantially understaffed during a time in which services in the mental health sector were at an

increased demand (Xiang et al., 2020). Global research efforts have documented how the pandemic affected staff in many front-line disciplines, such as nursing (Labrague & de Los Santos, 2020), fire departments (Prezant et al., 2020), and emergency medicine (Gavin et al., 2020). To date, literature is lacking that specifically addresses how the pandemic affected the well-being of health care professionals working in the addiction field.

One of the most high-risk groups for adverse health outcomes during the COVID-19 pandemic was individuals experiencing addiction (Dubey et al., 2020). Due to a high prevalence of medical comorbidities and

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environmental factors, many drug-dependent individuals navigate a range of health, social, and justice services. At each touchpoint, they connect with general practitioners, key workers, homelessness support workers, and other service providers (Perri et al., 2020). Addiction support and recovery became a significant challenge during the pandemic, as existing health care models changed or were completely abolished. The associated implications of these changes for practitioners have yet to be investigated.

The COVID-19 pandemic was not conducive to addiction recovery, and the implications for drug-related mortality were significant. Social support is a well-documented protective factor against relapse (Nikmanesh et al., 2017), and addiction recovery services often rely on group-based therapies (Columb et al., 2020; Liese & Monley, 2021). Evidently, social distancing requirements limited peer support options. Shared living spaces placed individuals at risk for coronavirus transmission and, to mitigate against the spread of the disease, residential services operated at largely reduced capacities (Perri et al., 2020). Marginalized groups experienced further social isolation, increasing the risk of overdoses occurring without observers who could provide medical intervention to counteract adverse drug reactions, e.g., naloxone (Volkow, 2020). Physiologically, comorbid cardiovascular and respiratory challenges are highly prevalent among drug-dependent individuals (Columb et al., 2020), which places them at higher risk for adverse COVID-19-related health outcomes with significant implications for mortality.

Current bereavement literature has identified grief-related and countertransference reactions in clinicians following the death of a client (Lakeman, 2011; McAuley & Forsyth, 2011; Yule & Levin, 2019). These studies highlight service providers as a vulnerable group in the aftermath of a service user death, calling for targeted support to address a high risk of complicated grief. The deaths of elderly patients often have generally normative healing trajectories, but a death by suicide, which is sudden and traumatic, may require targeted bereavement support (Murphy et al., 2019). Predictors for complicated grief, as such, include the nature of the death and closeness to the deceased. Recent literature has identified intense and complicated grief reactions associated with drug-related deaths, where deaths occur due to substances, but the cause of death may also be violence, accidental overdose, infectious disease, or suicide (Lambert et al., 2021; Titlestad et al., 2019).

Given that global drug-related deaths are increasing in prevalence (European Monitoring Centre for Drugs and Drug Addiction, 2020), and COVID-19 inhibited available supports while indirectly increasing mortality risks, considering the well-being of professionals who are exposed to drug-related deaths while supporting clients is important. These deaths can be socially stigmatizing, and associated bereavement outcomes include guilt, self-blame, anxiety, and, conversely, relief (Titlestad et al., 2019). Research to date has primarily focused on families, but a study by McAuley and Forsyth (2011) in Scotland examined grief-related reactions in service providers who experience drug-related deaths as part of their caseload. The authors examined emotional responses to a client's drug death using a self-report questionnaire with 76 caretakers across social, health, and voluntary care sectors. The key finding of this research was that grief-related reactions were present in 90% of the sample, with the most common grief-related reactions including self-blame, helplessness, anger, and thoughts about their morbidity. No statistically significant difference occurred in mean grief-reaction scores between staff of different disciplines. Yule and Levin (2019) more recently addressed the identification of grief-related reactions in service providers specific to drug deaths in a literature review. The authors drew on literature from other stigmatizing deaths such as suicide and suggested that clinicians who experience the death of a patient by drug-related outcomes are at increased risk for higher stress levels and grief-related reactions.

The responsibility to provide a high standard of care during the pandemic was challenging for service providers, especially while maintaining their occupational health. Clients of professionals providing

addiction services face further risks to their mortality compared to other health care settings. The complicated nature of drug-related bereavement has significant implications for providers, who are placed at increased risk for prolonged grief outcomes such as self-blame, depression, and anxiety (McAuley & Forsyth, 2011; Titlestad et al., 2019). Furthermore, a decreased sense of job control and increased demands both in and out of work can lead to a rise in occupational stress (Jetha et al., 2017), which may be exacerbated by unprecedented circumstances. As such, the aim of this study is to examine how COVID-19 impacted the well-being of health care professionals who are exposed to drug-related deaths while supporting clients experiencing addiction. The paper examines this impact within a range of different health care professions, with considerations for future practice and evolving opportunities to support staff in the future.

2. Methods

The current study is explorative and takes a phenomenological approach to understanding how the COVID-19 pandemic impacted the well-being of Irish health care professionals who support clients experiencing addiction. The first author conducted 15 individual semi-structured interviews, employing reflexive thematic analysis (Braun & Clarke, 2019) as a framework to interpret the transcripts in a hermeneutic manner.

2.1. Participants and sampling

This study includes 15 participants, seven men and eight women, all classified as health care professionals working in areas such as homelessness, addiction, public health, and emergency medicine. Initial recruitment occurred through purposive sampling by emailing departmental leads of various organizations. The email contained an information sheet for circulation in the service if appropriate. Further recruitment transpired through a snowball effect.

This research took place as part of a larger qualitative study examining drug-related bereavement in Irish health care professionals. However, as data collection commenced, staff had been working under pandemic-related conditions for several months. Therefore, capturing their experience during these times was of significant importance. To reflect the objectives of this research, the inclusion criteria were as follows: participants had to be older than 18, in direct contact with clients who are actively using drugs, and to have experienced the drug-related death of a service user during their time of employment. As an additional inclusion criterion, all staff had to be in active health care roles throughout the pandemic, a requirement fulfilled by all participants. The study had no sex or gender restrictions. The recruitment process excluded recently bereaved staff (within the last 3 months) with

Table 1
Profile of participants.

Participant	Role	Participant	Role
Participant 1	General Practitioner	Participant 9	Community Detox
Participant 2	Inclusion Health Social Worker	Participant 10	Addiction Counsellor
Participant 3	Homelessness Project Manager	Participant 11	Emergency Medicine Consultant
Participant 4	General Practitioner	Participant 12	Community Drug-Alcohol Worker
Participant 5	Addiction Project Manager	Participant 13	Housing Support/Addiction After-Care
Participant 6	Clinical Nurse Manager	Participant 14	Counsellor in Addiction
Participant 7	Researcher in Social Services	Participant 15	General Practitioner
Participant 8	Paramedic		

consideration for their psychological state.

Table 1 lists the current roles of participants, but participants also spoke retrospectively of previous relevant occupations.

Participants worked throughout the Republic of Ireland, with staff based in the south, southeast, mid-west, west, and east of the country. This study has a wide geographical spread, but each participant's specific location remains anonymized.

2.2. Data collection

The first author collected data through 15 in-depth individual semi-structured interviews. Thirteen interviews took place online via Microsoft Teams and two by telephone. An external audio device recorded the interviews, which were then transcribed verbatim. The data collection process took place from October 2020 to December 2020. Interviews ranged from 30 min to 57 min in duration, and the average duration was 44 min.

The semi-structured interview schedule guided the interview process; the schedule contained a list of seven open-ended questions asked across all interviews to ensure consistency and to allow the exploration of unanticipated topics. Participants spoke about drug-related bereavement and any implications COVID-19 had on supporting people throughout their addiction and recovery. COVID-19 was a recurring and unprompted topic throughout interviews, but the interviewer also dedicated specific questions to understanding how COVID-19 affected participants. The interviewer encouraged participants to speak at their own pace, but in adherence to general interview protocol for qualitative research, interviewer prompts and relevant questions facilitated further conversation. A briefing process occurred at the beginning of each call, informing participants of the sensitive nature of the study and of their right to pass on questions or end the interview at any time. However, none of the participants chose to do so. Debriefing conversations occurred at the end of each interview, including a reminder of relevant support services available if required.

2.3. Data analysis

Data analyses utilized Braun and Clarke's (2019) updated reflexive thematic analysis framework for conducting thorough exploration and interpretation of data transcripts, with findings reported in adherence to the standards for reporting qualitative research outlined by O'Brien et al. (2014). Both authors are experienced researchers who work with marginalized populations and consider reflexive thematic analysis to be the most appropriate analytical framework for bringing their research values, skills, and training to the data as they generate patterns of latent meaning (Braun & Clarke, 2021). The stages in Braun and Clarke's process are sequential but allow for fluid movement between phases. The stages are as follows: (i) familiarization with the data, (ii) coding the transcripts, (iii) generating initial themes, (iv) reviewing emergent themes, (v) defining the themes, and (vi) writing up the findings.

Each author familiarized themselves with the data, and the first author carried out inductive coding using NVivo qualitative analysis software (QSR International Pty Ltd., 2020), adopting a ground-up approach and creating codes through direct examination of the data. Upon generation of the initial codes, the authors engaged in continuous dialogue about theme generation. Back-and-forth movement between phases was common when new codes and concepts emerged from conversations related to the data. Given the inherently subjective nature of the coding process, the first author engaged in reflective journaling at the start of the coding process, adhering to the updated reflexive thematic analysis framework by Braun and Clarke (2019). This journaling facilitated written reflections about how the first author's experience in the area and how preexisting assumptions may have influenced any potential biases emerging during the coding process. The journaling process, supported by ongoing conversations between both authors, ensured that the researchers approached the data in the most inductive

manner possible.

2.4. Reflexivity

When utilizing reflexive thematic analysis, researchers must address how their experience and preexisting assumptions may influence interpretations of the findings. The first author has prior experience working with socially excluded populations in addiction services through research-based practice. The second author has both practitioner and research experience in addiction services. The first author was the sole interviewer, but the authors met to debrief and discuss the data after each interview. In our efforts to ensure an inductive approach to analysis, sometimes evidence of deductive thematic analysis emerged in the data, bringing assumptions into our interpretation. However, our use of reflective practice ensured our efforts to address this were comprehensive and congruent with our responsibilities as qualitative researchers (Dodgson, 2019).

2.5. Ethical considerations

The departmental ethics committee at the authors' university granted ethical approval for this research. Furthermore, the research protocol followed the Code of Ethics outlined by the Psychological Society of Ireland. Recruitment emails contained a briefing sheet and consent form outlining the voluntary nature of the study, and ensuring that data gathered during the interview would remain confidential and anonymous. Prior to interviews, the participants returned electronically signed consent forms to the first author. For data management and protection purposes, the authors stored the interview recordings on an encrypted laptop with a password-protected Microsoft OneDrive provided by the university. Data will be stored for a minimum of 10 years in the university data repository. Upon completion of a transcript, both authors discussed any further identifying information requiring removal from the data.

3. Results

Four core themes emerged from the analysis: (1) shift in priority, (2) being left behind, (3) managing a death, and (4) anxious environment. Core themes are supported by subthemes to provide further information and context.

3.1. Shift in priority

The participants in this study acknowledged that despite their wealth of professional experience, they were not fully prepared for the unprecedented challenges that the pandemic created. Staff members experienced widespread anxiety and increased occupational stress in the workplace, and evidence existed of confusion among staff as sudden changes emerged in their roles. Safeguarding against the spread of COVID-19 took priority in environments that typically prioritize the service user. Themes of internal conflict surfaced as participants addressed how their new priorities challenged their values as health care workers: "In addiction you've got to be flexible. Especially with COVID, it can't just be about the client now. I have to consider all the people in the building, my colleagues, my staff. Myself, even my own family." The shift in prioritization that Participant 10 described represents cognitive dissonance as contradictions arise between duty to clients and duty to oneself and others. Many project workers who have dedicated their professional lives to improving education, training, and support outcomes for marginalized populations witnessed their work come to a halt due to new priorities, such as Participant 3: "For me [COVID] has changed literally everything. The project I've spent years building has been suspended and I'm redeployed." The repercussions of this change are two-fold; these changes have mental health implications associated with increased job stress and a reduction of training and support opportunities for

marginalized groups.

Participants acknowledged the timely importance of investing resources into pandemic-related research and protocols but feared that this prioritization retracted from some basic harm reduction techniques utilized in addiction. Participant 4 outlined the shift in priority within the health care system:

Basic harm reduction, naloxone, needle exchange. Even just hepatitis C treatment, it has stopped you know, and it was just about to get going. In the last six months, I don't know if I've had one patient who was treated. It just gives you an example that the focus and the funding is on COVID, and yes it has distracted from some of the basics.

Staff expressed concerns that the fundamentals keeping many people alive did not have the same reach during the pandemic, even though addiction remained a prevalent issue. Drug-dependent individuals were at a significantly higher risk of overdose without any observers present to provide pharmacological support such as naloxone.

3.1.1. High threshold

The reprioritization of organizational components within addiction support and recovery also affected service delivery, reducing ease of access for service users. The pandemic necessitated the introduction of new administrative protocols and abolished the low threshold environment, which participants feared might result in fewer clients following through with service engagement. Contact tracing individuals with chaotic lives is difficult, and Participant 1 explained that the pandemic circumstances were not conducive to ideal operations. In fact, COVID-19 protocols contradicted the very foundation on which addiction support is built: *"The ideal is to have specialist low threshold services, no appointments, the least amount of administrative barriers. And all of that is the total opposite of what we're told to do as a service provider to keep the service safe now [during the COVID-19 pandemic]."*

Numerous once-accessible services ceased operations with implications for social work, homelessness, and other residential services. Participant 3 demonstrated the impact of this new "high threshold": *"I can't bring someone from the streets or another project in because then it creates more potential exposure to COVID."* Concern for people who rough sleep permeated throughout the theme of reprioritization, where integrating new people into services and existing projects was almost an impossibility. The closure of drop-in services also had a significant impact on recovery progression, and for the participants in this study, the loss of control over critical responsibilities was extremely stressful. Participant 2 highlighted some of the emotions associated with this loss of control:

I'm qualified around 10 years now and it's more so just a feeling of sadness and frustration where I could either scream at someone or cry my eyes out...Whereas before COVID, you could discharge someone from a hospital, get them two weeks in a B&B with a guaranteed detox bed at the other end. That's not the case now. I can barely get a key worker to ring them once a week to see if they're alright.

3.2. Being left behind

Amid the changes resulting from the pandemic, addiction continued to exist as a public health concern. Participants emphasized the importance of recognizing that people experiencing addiction were significantly more vulnerable than they were before the pandemic. As described by Participant 1: *"Addiction doesn't go away, and the lockdown has pushed more people to risky behaviors...I feel [the pandemic] is going to leave more people behind than were being left behind before."* Health care professionals take pride in their responsibilities, as summarized by Participant 15, a health professional working with active addiction,

"what you're trying to do is hopefully keep people alive long enough for them to get enough chances to get better." A prevailing sense of uncertainty existed among staff about the effectiveness of support efforts in achieving this goal during the pandemic, and some participants, such as Participant 6, reflected on the loss of control:

That is my biggest fear right now. Mental health difficulties go unrecognized in the monotony of this. Outside of COVID, it's really hard to be in hostels for years. My biggest concern, those guys that are chronically homeless and taking tablets are such high risk and I don't feel empowered. I don't feel I can do anything for them right now, even as somebody with a lot of experience. I feel a little bit helpless in this situation.

Participants expressed deep concerns about how service engagement became more challenging for an already marginalized population. In the extract above, the participant exhibited a sense of helplessness in being unable to draw on their experience to reach those who had become further marginalized. With drug-related deaths continuing to be a major public health concern, participants feared that more clients would experience adverse health outcomes while being left behind due to the reduced reach of support services.

3.2.1. Lost in transition

Participants identified the transitional stage among phases of recovery as a critical period, and as clients experienced significant delays in their recovery, service providers had an increased responsibility to watch over, maintain contact with, and keep clients on course. A prevailing sense of insecurity existed due to prolonged wait times increasing the risk of service users experiencing "slips" in their recovery, dropping out of contact, and getting lost in the transition. Participant 3 illustrated her concerns when reflecting on the noticeable changes in service users' recovery since the onset of the pandemic:

The amount of people who have had serious slips in their recovery whether it be mental health, starting to self-harm, engaging in crime, the lack of routine and structure, increases in domestic violence, tenancies being lost. If you're in recovery and you were struggling beforehand, you know it's too much to handle for people on their own.

The lack of outreach and residential treatment options heavily impacted stabilization programs, and extended waiting lists needed to be considered within care plans. Participant 2 stated that COVID-19 made procedures more strenuous with the closure of so many services, concurrently affecting morale as staff scrambled to ensure their clients maintained their course. She solemnly described the demoralizing effect that COVID-19 had on her as a professional:

It's great when you see people want to change their behaviour, but now I have nowhere to get for them. You are trying so hard to stay in contact with people who have chaotic lifestyles over the phone to maybe keep them going with a little bit of motivation along the way just to keep them alive. Until something might come up, but you don't know when that's going to come up. I can't do that for six months...It's really disheartening as a worker to know that a service might not be available for someone, when you know they're ready now.

3.2.2. Digital divide

The shift to virtual communication was a prevalent topic of discussion in the interviews, and participants reported varying experiences with its implementation. Participant 1 demonstrated that marginalized populations were at risk of being further divided with the move to virtual communication for professional support: *"The front doors of services were shut, and not all my patients and clients have smartphones and can't do video counselling. There is a digital divide"*. Other participants, such as

Participant 6, echoed these concerns: *"I don't think for this population that virtual consultations work very well. Personally, I find it difficult, but that might just be because the infrastructure wasn't set up."* The mention of "infrastructure" acknowledges the potential for successful integration of virtual support. However, such support required heavy facilitation that was not always available due to prioritization changes and staff redeployments.

The difficulties with virtual consultations were rooted in their limited reach. Participants spoke of clients with intellectual disabilities, language barriers, or a lack of technological understanding who struggled to engage. However, participants openly acknowledged that even well facilitated virtual consultation systems had some insurmountable barriers. The pandemic exacerbated the challenge of keeping in touch with clients with chaotic lives, as stated by Participant 10: *"I have so many clients where having the internet, having smartphones or even having the same phone number is a challenge."* These difficulties resulted in valuable time lost with clients and, in other cases, service users were not comfortable discussing their lives online or over the phone. Participants prided themselves in creating a safe space for clients within their practice, and feelings of frustration and helplessness permeated throughout interviews as COVID-19 abolished the sense of safety and security staff had fostered over their years of experience:

A lot of people we work with are very self-conscious about asking for help. Some don't like speaking over the phone, because they might have a mental health fixation on the fact that someone is going to hear something about their business. On the phone, how are you supposed to make someone feel safe?

However, we should also acknowledge that participants reported positive experiences with virtual communication, especially when communicating with other professionals and when considering implications for future practice. Participant 14 outlined his experience of working with fellow support workers. This counsellor acknowledged similar difficulties but demonstrated how, with the correct infrastructure, professionals could learn from the pandemic circumstances to develop efficient virtual practice alongside in-person support:

We were brought together in this virtual team and we had a task to ensure that any social inclusion clients presenting with symptoms or were close contacts, we were able to configure self-isolation accommodation for them... I've actually learned to make the most of the functionality. I've been able to do workshops and use breakout rooms and other facilities to make the work very engaging. That's one positive thing we can bring into the future.

3.2.3. New relationship dynamics

All participants spoke compassionately about the relationships they had developed with their clients. In detailing these impressions and connections, staff recalled pleasant and positive memories while becoming invested in their recovery. Service users being left behind during the pandemic was a significant source of anxiety for workers, not only from a professional standpoint but also from an emotional one. Staff emphasized the deep personal fulfillment in maintaining these relationships, but the pandemic strained some of these connections. Some clients began to take the safety protocols personally and felt threatened by them. Participant 10 provided an example as to how she mediated this: *"I was very cautious about a mask not meaning 'you're dirty and I'm wearing a mask in case you have the disease'. I was clear that I was wearing a mask because I was instructed. I don't have a choice – it's my responsibility to keep them safe."*

Relationship-building plays a crucial role in keeping clients engaged with services. In recognizing the value of positive relationships with clients, staff acknowledged that new protocols, alongside the digital divide, added a further layer of complexity to the navigation and maintenance of these relationships. Participants were concerned that the sudden shift away from in-person contact and reduced proximity would offset these often-delicate relationships. They also considered

how this change might influence a client's service engagement and well-being. Many participants, such as Participant 4, expressed concerns that some of their clients felt left behind or abandoned due to their new responsibilities, especially in residential settings:

It has a huge impact on staff well-being. When we are in complete lockdown, you can't meet people. We have such an amazing relationship with the participants over the years and they've built such trusting professional relationships that you become a huge support person for them. But all our service users may not understand the fact that I've been redeployed and I'm unavailable. In lockdown, you can't even meet up for a coffee.

3.3. Managing a death

The strong emotional investment staff have in their clients' recovery means that, in the event of a death, the death must often be marked emotionally alongside the procedural requirements associated with being a health care professional. Managing a death in this manner was difficult due to the lack of "downtime" during the pandemic. The overwhelming consensus among participants was that when a death is associated with addiction, enmeshed feelings of self-questioning, blame, and guilt occur. Participant 15 detailed the range of emotions she experiences when a service user dies by overdose or other drug-related complications: *"There's an unbelievable guilt. I always feel it's my fault if one of my patients dies, as you always feel it's such a shame and so unnecessary and unfair and potentially preventable."* Describing the deaths as preventable implies a degree of responsibility or control over the circumstances.

The pandemic hindered efforts to keep people alive and when participants solemnly reflected on deaths that had occurred since March 2020, the increased loss of control and anxiety generated from working during this time exacerbated bereavement outcomes. Alongside increased guilt, self-questioning was also prevalent in this theme, as participants questioned if the deceased would still be alive under pre-pandemic circumstances. When speaking about a drug-related death that occurred during the pandemic, one participant stated: *"I've always found that bringing services to people where they are is much better and without the ability to do that you need a lot more coordination on site and I just find that I wasn't really there."*

The personal investment staff have in the well-being of their clients further illustrates the devastating impact COVID-19 had on addiction support. In the event of a service user's death during the pandemic, the strain and changes in proximity in some of these relationships made the grief process more complicated. Pre-pandemic, processing grief was difficult due to these well-built and trusting relationships. During the pandemic, it became even more difficult due to how fast service provision was required to move forward. Furthermore, funerals were difficult to attend due to public health restrictions. Participant 9 highlighted the importance of funerals for service users and staff:

Their peers have literally been their own family unit for years. And they're left with nowhere to process that emotion, or that grief. They can't attend the funeral. Now, in the pandemic it's easy for families to say [it's closed] due to COVID restrictions. The lads then struggle to emotionally regulate around this person's death. If I don't go to funerals, I always expect them to come back. It's me closing that relationship with them. And it's also an acknowledgement of the fact that they were part of the community we belong to.

Health care professionals played a crucial role in supporting marginalized groups but simultaneously placed themselves and their close contacts at risk for disease transmission when on site. Balancing the duty to protect themselves while maintaining a stable and healthy environment in the workplace and at home became a significant challenge. With little time to process adverse experiences, particularly after the death of a service user, Participant 4 pondered the long-term implications for his and his colleagues' mental health:

I'm conscious that COVID has brought this in, we are now fitting in more stuff into our days. So, they're a little bit more frantic, and that background noise number one. And [contracting COVID-19], number two. It impacts on how all of it affects us from... First of all, the background noise in one way doesn't allow us to stop and think about [service user deaths] as much as we might have and I suppose the background stress, the impact of this actually makes the stress worse.

3.3.1. Loosening of the guidelines

The sudden onset of the pandemic necessitated immediate regulatory changes within services. The creation of quick solutions to unique challenges resulted in abolishing existing operating procedures and altering others to cater to the emerging needs of service users. The supply of methadone was a recurring topic during interviews, especially among general practitioners. Participant 4 provided context to this:

There was a set of guidelines that you had to go by pre-COVID, but they actually were loosened because of COVID. We needed to see more people, so instead of seeing someone that we might have seen every two weeks you might now see them every three weeks. You might give them a little bit more takeaways so that they don't have to go to the chemist every day to get their methadone. Those sort of loosening of the guidelines means that everyone is a little bit more exposed.

These data emerged within a conversation about service provider protection following the drug-related death of a service user. Participant 4 mentioned colleagues that experienced legal issues while managing a drug death in a service, and the loosening of the guidelines created further anxiety surrounding decision-making processes and legal outcomes for professionals. COVID-19 guidelines also had implications for the homelessness sector. A reduction in beds and living spaces led to frustration among service providers who, again, questioned how events might have played out in other circumstances:

Our rooms in the shelter were shared rooms, and that would be strategic, because when people were intravenous drug using we tried to create a culture of a buddy system. So, if we had two intravenous drug users they'd share a room so that if one got into difficulty the other could raise the alarm. With COVID that system has been abolished. We've had 15-bed shelters reduced to 8, shelters with 70 beds reduced to around 44.

3.4. Anxious environment

The theme of anxiety was prevalent throughout interviews and, as it permeated throughout conversations, evidence suggests that COVID-19 fostered an anxious environment within the context of service provision. Many service users live with comorbid health difficulties that placed them at high risk for adverse health outcomes during the pandemic, and the fear of outbreak within residential services was a perpetual concern for both staff and service users. Participants spoke about how fortunate they were not having experienced this in their own workplace but acknowledged other services where a single COVID-19 case had crippling effects on service provision. Participant 3 detailed the anxiety and constant monitoring that occurred within a shelter for people experiencing homelessness:

The anxiety of some of the residents and staff with regards to COVID like... We are doing temp checks twice a day, assessments every time someone comes and goes. Even with that, the masks obviously in place, social distancing in place, reducing numbers in and out of kitchens. You can still see how much people are nervous and anxious about it.

The anxiety surrounding the implications for their profession extended across all disciplines represented in this study. During interviews, participants questioned the quality of their own mental health, given the increased level of consideration they needed to maintain for others. For Participant 8, a paramedic, house calls could have had significant implications if not carried out with due care: *"There's a bit of a suspicion or fear there within paramedics as well for [our safety], like 'Does this person have COVID?'"* The increased health risks, demands, and anxiety surrounding the consequences of their work for their loved ones contributed to a concurrent rise in occupational stress. Participant 3, who worked in homelessness shelters throughout the pandemic, spoke about the difficulty in separating oneself from the anxiety: *"It is so impactful at all levels... Never, ever, ever have I found it so difficult to separate work from home."* Navigating the working day while considering the welfare of their colleagues and family added an extra layer of complexity to the work-life balance, which was typically crucial to maintaining positive mental health routines.

4. Discussion

The current study examined how COVID-19 impacted the well-being of health care professionals who are exposed to drug-related deaths while supporting clients experiencing addiction. The findings identified many obstacles unique to the pandemic and highlighted how lockdown restrictions compounded existing challenges in service provision. Staff experienced increased anxiety and occupational stress due to the chaotic nature of operating during these circumstances. With little opportunity to address this, concerns about the long-term impact of the pandemic were prevalent, particularly in relation to service users being left behind by new protocols and the subsequent impact on mortality rates in addiction. Participants reflected on potential long-term effects on their well-being as they worked at a frantic pace with little time to process adverse events.

Sudden role changes and the reprioritization of responsibilities prompted internal conflict within staff who had adhered to personal and professional values throughout their careers. Staff with more than 20 years of experience in addiction support expressed feelings of increased occupational stress due to unfamiliar barriers and the inflexibility of the "high threshold." [Jetha et al. \(2017\)](#) developed a system dynamics model of workplace stress among nurses and acknowledged that workplace stress is constantly evolving. The key findings of the study stated that job control, social support, workplace safety, and demands outside of work are strong predictors of poor mental health outcomes in health care professionals ([Jetha et al., 2017](#)). Similarly, as the pandemic evolved, key occupational stressors included increased out-of-work demands when trying to keep their loved ones safe, a loss of control over their core responsibilities to keep clients alive, and decreased workplace safety due to the fear of disease transmission. A continuous cycle of stressors resulted in intensified feelings of frustration, fear, and helplessness. In moving to a new model of service provision following the re-opening of services, much can be learned from service providers' experience during this pandemic in how they adapted both professionally and emotionally. Furthermore, we can identify their needs in the face of intensified stress. Organizations can examine these experiences retrospectively to inform policies to optimize their staff's occupational health in times of unprecedented distress while also optimizing support provision to marginalized groups.

The direct health implications of COVID-19 for people experiencing addiction are widely understood within the literature ([Dubey et al., 2020](#)), but participants urged health care systems to recognize the indirect effects of the pandemic on marginalized populations. Staff highlighted that some clients were being left behind and experiencing "slips" in their recovery due to delays, issues with virtual support, and increased social isolation. As a result, service providers experienced further anxiety while trying to support their clients in line with public health restrictions. Research suggests that self-efficacy beliefs and social

support play important roles in preventing relapse, as examined by [Nikmanesh et al. \(2017\)](#) through a quantitative self-efficacy scale and a multidimensional scale of perceived social support. The current study reflects these findings, but the pandemic made it difficult for staff to reinforce these values through limited face-to-face contact when relying solely on virtual support methods.

However, as the world moved forward into more hybrid service provision with increased vaccination levels and services re-opening worldwide, opportunities existed to develop safer, multi-faceted service provision systems that incorporate the strengths of both virtual and in-person support to provide a wider reach. The pandemic resulted in a pivot to hybrid working models with an increase in telehealth utilized in a range of health services. Research on new working practices emerged at the time of this study, so it is difficult to draw conclusions about how different cohorts adjusted. Similar to the participants in the current study, some have argued that telehealth provision has facilitated easier access to services ([Molfenter et al., 2021](#)), and others are concerned that particular cohorts have struggled with access to technology and isolation ([Moore et al., 2021](#)). Limited data exist from the service users' perspective. More research on this topic will likely emerge from which informed conclusions could be drawn. The use of telehealth may have had positives for some groups and negatives for others. Many frontline service providers have expressed concerns that drug-related deaths increased during the pandemic. If this is the case, we need to understand if the lack of face-to-face service provision played a role in these deaths. Until research fully establishes this, we cannot draw conclusions or make recommendations.

Managing a client's drug death became significantly more challenging for staff during the pandemic, particularly with increased uncertainty surrounding the quality of their health care provision in unprecedented circumstances. Practitioners typically followed a set of principles when caring for their clients, but the pandemic circumstances altered many of these guidelines. This change left health care workers feeling less protected in their decision-making processes (e.g., methadone prescribing) as regulations around their responsibilities were loosely defined. This insecurity subsequently fostered further anxiety in staff surrounding their efforts to keep clients alive, intensifying their sense of self-blame following a drug-related death. These sentiments provided by Irish health care practitioners echo changes in international regulations, such as in the United States, where the Substance Abuse and Mental Health Services Administration directed treatment providers to prescribe take-home medication more flexibly during the pandemic ([Substance Abuse and Mental Health Services Administration \(SAMHSA\), 2020](#), as cited by [Volkow, 2020](#)). To protect workers' well-being, they must feel supported in their decision-making in times of high stress.

Similar to the current study, [McAuley and Forsyth \(2011\)](#) examined grief-related reactions in health care workers who work with people who use drugs. Many bereavement outcomes emerging from the 2011 study's surveys were prevalent in the current study's interviews. The extenuating circumstances emerging from the pandemic intensified bereavement outcomes such as self-blame. The findings of this study coincide with existing bereavement literature in recognizing the drug death of a service user as a harrowing experience for health professionals ([Lakeman, 2011](#); [McAuley & Forsyth, 2011](#); [Yule & Levin, 2019](#)), but findings also highlighted that the pandemic compounded the grief process.

Given the long-term impact of complicated grief ([Lambert et al., 2021](#); [Titelstad et al., 2019](#)), more rigorous welfare policies must be implemented to protect employees' well-being. More specifically, policies should aim to decrease anxiety around decision-making and provide targeted bereavement recovery programs that address complicated grief. From an organizational perspective, the procedural acknowledgement of a client's death involves the completion of the appropriate documents and contacting relevant people. However, this study highlighted clear emotional connections between the service provider and client, and organizations must not fail to address the emotional

component of marking a death. Funerals play a significant role in closing the relationship from an emotional perspective, and the pandemic resulted in reduced access to these ceremonies. The authors recommend creating a space to mark these deaths for staff (and service users) within an organization's framework.

4.1. Conclusion and implications

Leading epidemiologists and climate scientists argue that pandemics are likely to become more common, and this COVID crisis provided an opportunity to learn and reflect on future-proofing services. This study collected a broad scope of experiences across disciplines in health care and demonstrates how professionals navigated unprecedented circumstances. The in-depth methodology ([Braun & Clarke, 2019](#)) allowed for an intricate understanding of the internal conflict within participants and the difficulties they encountered in caring for their clients. All participants had a concern for the mortality of those left behind by the system. While the number of those who have died due to drug-related deaths during the pandemic were unknown at the time of writing, the anecdotal evidence from front-line providers in Ireland is that a significant increase occurred ([O'Carroll, 2020](#)).

Excessive occupational stress in health care workers has well-documented implications for well-being and is associated with elevated levels of employee burnout ([Meng et al., 2015](#)). This paper highlights some areas that are cause for concern and should be addressed for future service delivery. The inflexibility of service provision and the digital divide due to public health measures pushed marginalized groups further into the margins. Services should pivot to the provision of intensive individual care working within public health guidelines and aim for daily communication with people who live chaotic lives. The impacts of drug-related deaths on staff and service users are profound and require appropriate policies and support, with heavy investments in making services available with as few obstacles as possible.

This study provided an overview of different professions that shared many common difficulties. However, the first author conducted each interview with a single participant. This area of study would benefit from increased insight from the various health care roles represented in this study. Future studies could benefit from focus groups to gain further professional insight into how the pandemic influenced operations. Furthermore, highlighting any potential differences between disciplines would support the development of a measure to explore possible health outcome differences among occupations, with the aim of providing targeted support to addiction counselors, general practitioners, and other health care workers as required. Finally, while the participants in this study provided a comprehensive overview of clients' experience, subsequent studies should aim to examine the impact of the pandemic on service users themselves.

Overall, the COVID-19 pandemic had a significant impact on the well-being of clinicians who work with people who use drugs, fostering an anxious environment and compounding what can already be a high-stress occupation. However, service providers admirably continued to support marginalized populations in the face of unprecedented circumstances.

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Declaration of competing interest

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