Teaching and learning modalities for continued professional development

Attitudes and experience of the long-term care workforce

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Leading Healthcare Providers Skillnet,



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Acknowledgements

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List of Abbreviations

CEO (Chief Execut	tive Officer

- CoE Centre of excellence
- CPD Continuing Professional Development
- EU European Union
- FG Focus Group
- ICN International Council of Nurses
- LHP Leading Healthcare Providers
- LTC Long-term Care
- PIL Participant Information Leaflet
- RCSI Royal College of Surgeons
- ROI Republic of Ireland

Foreword

The COVID-19 pandemic significantly disrupted the provision of education and training globally. Due to physical distancing brought about by the pandemic, healthcare professionals were unable to access traditional professional development and training activities, resulting in the majority of training activities being delivered online.

This research looked at the attitudes and experiences of healthcare professionals, within the long term care sector, of different teaching and learning modalities with the aim of providing key recommendations to inform workplace development leaders, programme designers and educators.

Research evidence was required to establish key recommendations for the private long-term care sector to ensure that quality teaching and learning is safeguarded and workforce development strategies are effective, in light of the changes to the mode of teaching that has been normalized due to the consequences of the pandemic. The report has distilled the findings of the research in order to shape the future of workforce development within the private long-term care sector. Key recommendations have been provided to strengthen the delivery and impact of education and training for this sector.

I would like to thank the LHP Steering Group, our member companies and the participants who contributed to this research report and also to the faculty of Nursing & Midwifery in the RCSI who conducted the research.



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Leading Healthcare Providers (LHP) Skillnet

Leading Healthcare Providers (LHP) Skillnet commissioned the European Centre of Excellence (CoE) for Research in Continuing Professional Development (CPD) based in the Faculty of Nursing and Midwifery at the Royal College of Surgeons (RCSI) to conduct this study and provided the funding for the study.

LHP Skillnet was established in January 2008, it is a not-for-profit Learning Network co-funded by Skillnet Ireland and its member companies. Skillnet Ireland is funded from the National Training Fund through the Department of Further and Higher Education, Research, Innovation and Science. Of the 70 plus Skillnet Ireland Learning Networks, LHP Skillnet are the only Network dedicated exclusively to support workforce development in the private healthcare sector. They do this through the provision of high-quality, sector-led, subsidized training, education, new programme development and research.



Executive Summary

Research into the experiences of healthcare workers with the various teaching and learning modalities in the long-term care (LTC) setting is limited. The aim of this study was to develop a better understanding of the attitudes and experience of healthcare workers and managers with face-to-face, online asynchronous (pre-recorded), and online synchronous (live) modalities for continuing professional development (CPD) working in the private LTC sector in the Republic of Ireland (ROI).

This study involved focus groups with LTC managers, registered nurses, and healthcare assistants to explore their experience with the three modalities for CPD education and training. The study also included a survey to examine LTC workers' experience with the three educational modalities.

From the focus groups four themes emerged regarding participants' experiences, attitudes and preferences with the three modalities of CPD education and training in the field of LTC: 1) Flexibility, 2) Networking, 3) Resources and Support, and 4) Balancing online and face-to-face learning through Blended Learning. Results from the survey found the preferred modality was face to face (n= 54, 32.1%), followed very closely by blended learning (n=51, 30.4%). Almost a quarter of participants favoured synchronous online (n=39, 23.2%), and the least favoured option was asynchronous online (n=24, 14.3%). Most of the respondents reported that Synchronous Online CPD education was convenient, flexible, offers the opportunity to interact with peers, and that its quality depends on teachers' skills. The majority of respondents (n=149, 88.7%) declared that they would need support in the workplace to implement new knowledge and skills.

This report provides key recommendations for workforce development leaders, programme designers and trainers for the long term care sector regarding education and training. Significantly the need to develop the digital pedagogical competences and skills of healthcare educators (e.g., to make teaching more engaging, and implement digital upskilling strategies for online and blended learning).

Recommendations regarding course design include involving the learner from the initial design phase and at various stages of the design process. Including other stakeholders: managers, owners, patients and carers. Blended CPD activities need to be encouraged to combine the advantages of flexibility and convenience, with the benefits of effective learning. In addition, CPD activities, should be designed based on the learning needs of the LTC workforce, especially in relation to advanced competencies for gerontological nursing, patient education, communication, teamwork and digital skills. Other recommendations include incorporating evaluation of engagement strategies into the evaluation of the programme, and the importance of follow-up and colloboration with the employer to ensure the integration of new knowledge and skills in the workplace. As healthcare professionals need more support to integrate their new knowledge and skills than an education program alone.

This study revealed the significance participants place on 'engagement' when participating in education and training. Engagement was described as a key factor to improve the delivery of CPD in the LTC setting. In addition, regardless of the mode of delivery participants indicated that they need to be supported in the workplace to implement their new knowledge and skills. This requires the support of employers and managers, who could ensure more protected time for learning, technical support, facilitators and mentors in the workplace to support uptake of new knowledge in clinical practice. In return, the consequences of successful knowledge translation can be significant, such as more job satisfaction, decreased caregiver burden, higher retention rates, and higher quality services for the growing population requiring LTC services.





Background

Due to the ageing of the world's population, and especially in Europe (Green Paper on Ageing, European Commission, 2021) the demand for long-term care (LTC) is expected to rise significantly in the coming decades. LTC provision has become more complex for the most fragile older people, creating issues when workers lack competencies. Even some of the most basic tasks (for instance, administering food to older people) can become complex and require more advanced competencies when older people have severe conditions, such as dementia.

The COVID-19 pandemic significantly disrupted the provision of education and training globally. The restrictions resulting from the pandemic limited the opportunities for healthcare professionals and healthcare workers around the globe to participate in educational activities and continuing professional development programmes. Access to education has become even more essential, due to physical distancing brought about by the pandemic, healthcare professionals' were unable to access tradition professional development and training, this has resulted in the majority of professional development activities being delivered online. This trend has continued despite the easing of many restrictions brought about as a result of the pandemic.

The COVID-19 pandemic has also exposed the vulnerability of LTC facilities around the globe, highlighting the longstanding lack of investment in nursing practice and adequate staffing that may have prevented many deaths, both among healthcare staff and residents (Bakerjian, et al., 2021). A recent report from the Republic of Ireland (ROI) COVID-19 Nursing Homes Expert Panel: Final Report also made several recommendations regarding the LTC sector. In particular about the education and training of the LTC workforce; they recommended that senior nursing staff undertake post-graduate gerontological training and show general evidence of training competency. They also recommended mandatory continuing education for all staff in areas such as infection control, palliative care, end of life, and dementia. The report recommends regulatory oversight to ensure that targets are met. However, there is limited evidence that educational activities alone translate into improved patient outcomes (Ramani et al., 2019.

The Department of Education in Ireland have developed a *Digital Strategy for Schools* (primary and post-primary



education). However to date they have not developed a strategy on digital education, improving digital skills or support for online and blended teaching for Further and Higher Education. This is a gap which may be addressed by the new Department of Further and Higher Education, Research, Innovation and Science in the future, which was referenced in their recent three-year strategy improving digital skills. Digital skills for education is also a European Union (EU) priority. *The Digital Education Action Plan (2021-2027)* is an EU policy which aims to support education and training systems of its Member States for the digital age The availability of CPD opportunities linked to career improvement (Brekelmans, Maassen, Poell, Weststrate, & Geurdes, 2016) has been shown to play an important role for nursing recruitment and retention, especially in LTC settings where access to professional development is often very limited (Scammell, 2018). Therefore, professional development is linked to strategic workforce planning, because it enhances health professionals' job satisfaction (Cooper, 2009; Price & Reichert, 2017), creates career progression opportunities, and contributes to the construction of a sustainable base for an increasingly ageing workforce (Brekelmans et al., 2016; Organisation for Economic Co-operation Development, 2020). This is especially so in LTC settings where access to CPD and career progression opportunities are often limited (Scammell, 2018) when compared to larger clinical sites such as the acute setting.

CPD entails the creation of a quality learning environment linked to the acquisition and upgrading of knowledge, skills and attitudes that improve the quality and safety of care (National Academies of Sciences & Medicine, 2022; World Health Organization, 2020)). The challenge, however, is understanding how to design and deliver CPD activities that meet the learning needs of the LTC workforce. This is especially so in relation to advanced competencies that involve the integrated application of concepts across multiple domains such as gerontological nursing, patient education, communication, teamwork and digital skills. This combination of skills have become essential to respond to the needs of today's rapidly increasing population of comorbid 'older-old' (Atella et al., 2019; Eurostat, 2019; Lucca et al., 2015). Indeed, in the increasingly changing clinical environment, novel competencies are urgently needed and the provision of CPD programs that target these priorities in the LTC workforce could constitute an effective short and long-term solution, to recruitment and retention issues (Scammell, 2018).

To date, there is limited research into the experiences of healthcare workers with regard to teaching and learning modalities in the LTC setting. Therefore, the aim of this study is to examine healthcare workers and managers' views, opinions, beliefs and experience with three teaching and learning modalities current employed in the private LTC settings in the ROI.



Methods The aim of this study was to evaluate private LTC workers' views, opinions, beliefs, and experience regarding the three teaching and learning modalities for this particular cohort through focus groups.

The three teaching and learning modalities examined were;

- Synchronous (live online) online teaching and learning (students and teachers interacting in "real-time").
- Asynchronous (Not live online) online teaching and learning (students accessing materials in their own time 'on-demand').
- Synchronous in-person (Face-to-Face) teaching and learning (classes taught in person to a group of students).



This study consisted of focus groups and an online survey. Four focus groups were conducted: one with managers, two with registered nurses, and one with healthcare assistants to explore healthcare workers' experience with online and face-to-face learning and training activities in private LTC workers in Ireland. Their views and opinions on their preferences regarding online and face-to-face learning were recorded and analysed. The focus group centred on understanding healthcare workers' experience and on exploring questions like "why was their education and training effective or not?" and "how is the mode of delivery helpful for learning?" The intention of the focus groups was to contribute to a better understanding of the different modes of delivery of education and training for private LTC workers. Due to the ongoing COVID-19 pandemic, it was more convenient to conduct the focus groups online. This also helped to maintain public health guidance regarding social distancing and minimise the inconvenience pertaining to travel as participants were from various locations across the Republic of Ireland.

For the Online survey, participants were presented with several statements in the survey about Online and faceto-face CPD education and training. They were asked to indicate the degree to which they agreed or disagreed with the statements on the list.

The questions were divided into four themes identified through the focus groups:

- 1) Flexibility & convenience
- 2) Networking
- 3) Engaging & meaningful learning
- 4) Resources & support

• **3** Research Findings

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Focus Group Findings

Four focus groups were conducted; one with two private nursing home managers; one with three Healthcare Assistants; one with three registered nurses and one with just one registered nurse. Four themes regarding participants' experiences and preferences with three teaching and learning modalities for the delivery of education and training in the area of LTC were identified: 1) Flexibility, 2) Networking, 3) Resources and Support, and 4) Balancing online and face-to-face learning.

Theme 1. Flexibility

The first theme that emerged from the data was about the "flexibility" offered by online learning on its own or in blended learning, in combination with face-to-face learning.

This theme was underpinned by five explanatory subthemes:

1. Flexibility of online and blended learning allows better work-life balance

Quote: "..for online learning there are advantages as well. Because having to get into class without having to leave home in the early hours is a big advantage in that it gives a learner time to have enough rest and do other chores, for example, preparing kids for school, taking into consideration that most learners in this field are parents or mature students" [Healthcare assistant, FG1]

2. Easier to schedule online learning and fewer logistic arrangements

3. Can train larger numbers quicker online

Quote for 2 &3: "Online can get large numbers trained and a lot quicker...no need to arrange a training date, people can do it in their own time when it's convenient for them" [Manager, FG3]

4. Can access materials and recording when needed

Quote: "Access to materials when you want- Being able to access recordings/lectures" [Manager FG 3]

5. Continue training safely also during a pandemic

Quote: "online helps to keep staff training up to date. Need to keep education and training going during the pandemic" [Manager, FG 3]

The results relating to the flexibility of online learning is confirmed in the literature. Online courses and information and communication technologies allow for a better work-life balance (Berry & Hughes, 2019). The ongoing pandemic has favored the rapid, widespread development and use of online educational interventions, making it possible to continue CPD in safety (Bliss, 2021; Windrim, Gan, & Kingdom, 2022). The OECD reported the positive potential of online learning for adults from the experience of COVID-19, highlighting the wide range of professionals trained more rapidly (OECD, 2020).



Theme 2. Networking

The second theme that emerged from the data was about the importance of "networking" to improve human interaction and collaboration between teachers and learners, and between learners especially with online learning. This was described as an important skill for anyone who works in the healthcare sector.

This theme was underpinned by four explanatory subthemes:

Improve online interaction for better engagement

Quote: "I think one way of improving the online education will be to ensure stability in internet connection and try to look for ways also of promoting more interaction." [Healthcare Assistant FG 1]

Develop relational skills through technology for less isolation

Quote: "face to face education affords us the opportunity to mingle with other people and engage in other activities outside of formal education that are also important to education and development. That's what the online education cannot so readily provide for us. And I think for those who are shy... it gives them the opportunity to also build their confidence, so be able to stand up and talk. [Healthcare Assistant FG 1]

Collaboration with peers and teachers

Quote: "I did a Palliative care course about 6 months ago and that was online and that was good because it increased my knowledge and I was able to share my knowledge with my colleagues" [Nurse FG 2]

Build effective communication through respect

Quote: "I would say for the people with no confidence... in talking in front of the class, I think students must be told that not everyone is comfortable in standing and talking in front of everyone. So, they must support each other, encourage each rather than laughing or passing funny comments about other students. [Healthcare Assistant FG 1]

According to recent studies, networking can happen organically in a face to face setting during learning. However, this is not without its challenges—more introverted trainees may feel uncomfortable in these networking situations. Online learning can enable easier interaction and collaboration between teachers and learners and between learners (Bacon et al., 2022).



Theme 3. Resources and Support

The third theme highlighted the importance of having appropriate "Resources and Support" to ensure that the best possible conditions are in place to fully achieve the intended learning outcomes, which in turn affect the quality of care that participants provide to their patients. Appropriate resources and support are important to ensure learners' mental and physical wellbeing, both for online and face-to-face learning.

This theme was underpinned by six explanatory subthemes:

Learning materials & more options and choices for the learner

Quote: "The support, I would say, in terms of giving more materials for online. More materials in terms of learning materials and learning tools. If we are going to do online classes, give more information about what the program is all about, prior to coming online as well." [Nurse FG 2]

Reliable Internet & IT support.

Quote: "For me, the challenge with online is on the technical side, in terms of trying to navigate the internet, if there is a network issue, or the network breaks down while you are online, you are not in a class environment that is where the challenge will be." [Nurse FG 2]

Protected time & reimbursement for expenses

Quote: "I would say, the challenge will be traveling, logistics, expenses and time. These all have a negative impact on the mental and physical health of the learner." [Nurse FG2]

Need to have the competences and the space (physical, virtual and mental) to learn. Readiness to learn

Quote: "my challenges are the lack of suitable resources like, conducive learning space, like, to find a quiet room in the house is sometimes hard when there are kids around" [Healthcare Assistant FG 1]

Rules to support learner's privacy and supervise learner's conduct with online learning

Quote: "I think for online, there should be proper rules and regulations on areas of learner conduct and data and privacy regulations." [Healthcare Assistant FG 1]

Since the early days of the pandemic, strengthening digital infrastructure and internet access have been identified as a fundamental factor for online learning to be a viable option (OECD, 2020). The current literature on CPD does not consider spaces and reimbursements for the expenses incurred by trainees during the learning process. However, bibliographic resources, such as access to e-journals, webinars, lecture content, and recordings, are singled out as resources most frequently deemed necessary by trainees (Clode, Darlow, Rouse, & Perry, 2021).



Theme 4. Engaging and meaningful learning

Another important theme that emerged from the thematic analysis of our Focus Groups was the need for learning to be "Engaging and Meaningful" and this is key for all modalities. As mentioned above in Theme 2 "Networking", whereby interaction between peers and between students and teachers, because this increases engagement and learning becomes more interesting and meaningful. When learning is engaging and meaningful, students' concentrate more and perform better.

This theme was underpinned by five explanatory subthemes:

1. Need strategies to improve online engagement

Quote: "...ideas of promoting students' engagement should be looked at if online learning is to be effective for learners" [Healthcare Assistant, FG 1]

2. Perception that Face-to-face learning is more engaging

Quote: "I suppose for people who do online education, like, if you're sending nurses or carers, whoever it might be, it probably doesn't challenge them to ask questions because they're just, you know, taking in all the information that's being given. But if they were in the classroom setting, that might actually prompt the person to ask questions." [Manager, FG 3]

3. Face-to-face - may be easier to monitor learning performance

Quote: "we can tick a box to say it's been done, but the learning hasn't taken place and so face to face, I think it's very beneficial because it does allow that interaction for further development... and it also gives a sense of who, maybe what staff you need to look out for, say in the workplace because if you're the facilitator of face to face based training and you might identify a group member who's not really tuned into what's going on, and maybe you might put an action plan in place to observe that person in the work in the practical sense." [Manager, FG 3]



4. Feel isolated with too much online and easily lose interest

Quote: "...try to look for ways also of promoting more interaction. Because left alone the online style of education begins to gradually erode social interaction and at the end of the day, society will suffer for that [Manager, FG 3]

5. Need to reinforce learning in the workplace regardless of the mode of delivery

Quote: "...learning is great, no matter what way we learn because we're going to learn new knowledge even if it's online or if's its face to face and even if there is disparity with what the understanding is, if we can reinforce it then back in the workplace and talk through their online course that you did there recently [Manager, FG 3]

The need for engagement and meaningful learning and their interconnection is well documented in the literature. For this reason, Bacon et al. have devised, in their study on the field of bioinformatics, some rules to increase engagement, inclusiveness, and empowerment. These strategies cover the sharing of interaction rules, respect for privacy, correct management of questions, instigating the use of chat among trainees, dividing participants into groups, and using practical exercises (Bacon et al., 2022).

Theme 5. Balancing online and face-toface learning

Finally participants suggested that there was a need to balance the advantages of online (flexible, convenient, for theory learning) and face-to-face learning (socializing, engagement, and learning practical skills) through adequately designed blended learning activities.

This theme was underpinned by five explanatory subthemes:

• Blended learning can achieve optimal results combining theory (Online) and practical (face-toface) learning

Quote: ".....the bulk of theory can be done online with practice based learning like practicals. It can be done at institutions like nursing homes and hospitals as well [Healthcare Assistant, FG 1

Innovative and designed to stimulate interest

Quote: "... learning to learn online should be in itself, a priority and a mandatory module across the board for anyone wishing to take any courses online. And I therefore think, with a few improvements and guidelines, online learning should be the future of education." [Healthcare Assistant, FG 1]

• Face-to-face is considered more interactive and facilitates knowledge transfer

Quote: "...our fire instructor is really good you know he makes you be the resident, he makes you do the evacuation but it's real and you feel like it's real life and you've learned and people have a laugh while they're doing it as well, so I think the more interactive the better." [Manager, FG 3]

Educators and trainers need appropriate teaching skills for blended learning (e.g. Role Play, OSCE techniques)

Quote: "I suppose it's just really down to the trainer. If you've got somebody who really is engaging and gets the people interested, you know, it can be really, really interesting. So I mean that's really just getting to know who's providing the education and getting the right people." [Manager FG3]

Advocating active learning approaches for online and blended learning

Quote: "I think the best way forward is to have a blended learning, where we can merge the two together to suit everyone's needs and also in the long term, it obviously would benefit both the patient and also whoever is attending the course as well. [Nurse, FG 2]

 There is a perception that face to face teaching and learning ensures better results for patients

Quote: "I would still encourage the online, the face to face one to one group work all the elements together to make it really worthwhile and that will improve outcomes for residents in the long term." [Manager FG 3]

It is likely that, no one unique mode of delivering CPD programs (face-to-face, online and blended) will be sufficient to ensure optimal results in delivering CPD programs. Farrington found that eLearning and facilitated workshops (blended learning) led to the acquisition of knowledge relating to all aspects of the implemented course, offering the advantages of remote participation and the involvement and comparison between teachers and participants during the workshops and discussion sessions (Farrington, 2014).

Findings from the anonymous online survey

232 survey responses were included in the analysis (168 responded to all the questions and the other 64 answered at least one complete section of the questionnaire).

Demographics

The demographic results are presented in Table 1. The majority of respondents were between 25-54 years (n= 170, 73.3%), with less than 5% under the age of 25 (n=10). Just over 40% of the respondents were healthcare assistants (n= 98), followed by nurse managers (n= 72) and registered nurses represented almost 15% of the respondents (n=32). Almost 80% reported that their first language is English (n=181). The median number of years of experience working in the LTC sector was 6. The majority of respondents had a Third level Degree or higher, (n= 140, 61.2%) with just over 10% reporting Secondary Education as their highest educational achievement (n=28).



Preferred mode of delivery for education and training

Participants were asked to indicate their preferred mode of delivery for education and training (Figure 1). The preferred made was face to face (n= 54, 32.1%), followed closely by blended learning (n=51, 30.4%). Almost a quarter of participants favoured synchronous online (n=39, 23.2%), and the least favoured option was asynchronous online (n=24, 14.3%). Even today, faceto-face interventions are frequently considered more effective and linked to a long-standing culture and tradition of learning (Mali & Lim, 2021). However recent studies have found online and blended educational activities to be as effective in terms of increasing knowledge and changing behaviors of professionals of as face-to-face learning (Acaroglu et al., 2022; Binmohsen & Abrahams, 2020; Suwannaphisit, Anusitviwat, Tuntarattanapong, & Chuaychoosakoon, 2021).



FIGURE 1 • Perferred Mode of Education and Training





Frequency of participation in synchronous online, asynchronous online and face to face education and training

The frequency of participation in synchronous online, asynchronous online and face-to-face teaching and learning activities is presented in Figure 2. The majority of participants reported that they have participated in all three modes of delivery in the last 5 years (synchronous online 92.2%, asynchronous online 84.1% and face-to-face 91.2%).

Experience and opinions about synchronous online education and training

In response to the questions about their participation in synchronous online CPD education and training, 95.3% strongly agreed or somewhat agreed that it is very convenient (eliminates travel, costs, childcare needs, etc.). 80.7% strongly agreed or somewhat agreed that it is flexible (can do it at a time that suits me, fits around my life, access 24/7). 70.7% strongly agreed or somewhat agreed that it provides the opportunity to interact and network with other LTC colleagues. Only 33.5% strongly agreed or somewhat agreed that it makes me feel isolated and lose interest, similarly only 34% strongly agreed or somewhat agreed that 'it is complicated to access and use, I require IT support', and finally 82.4% strongly agreed or somewhat agreed that 'it is dependent on the teachers specific level of skills and competencies' (Table 2).

Experience and opinions about asynchronous online education and training

In response to the questions about their participation in asynchronous online education and training, 95.2% strongly agreed or somewhat agreed that it is very convenient (eliminates travel, costs, childcare needs, etc.). 90.4% strongly agreed or somewhat agreed that it is flexible (can do it at a time that suits me, fits around my life, access 24/7). 53.6% strongly agreed or somewhat agreed that 'it provides the opportunity to interact and network with colleagues'. Only 31.5% strongly agreed or somewhat agreed that 'it makes me feel isolated and lose interest', similarly only 30.8% strongly agreed or somewhat agreed that 'it is complicated to access and use, I require IT support' (Table 3).

These findings support previous knowledge in this field. The most important advantage of online learning is the possibility to exchange information and provide education over a distance, without the need to move participants, practitioners, or educators, that is, distance learning. In settings with fewer professionals to carry out clinical work, it may not be feasible for them to travel to a distant site to attend a program. Added to this is the cost of travel and logistics, which can sometimes be prohibitive, especially for international events (Praharaj & Ameen, 2020).

Experience and opinions about Face to Face education and training

In response to the questions about their participation in face-to-face CPD education and training, 41.5% strongly agreed or somewhat agreed that 'it is very convenient, 32.1% strongly agreed or somewhat agreed that 'it is flexible (can do it at a time that suits me, fits around my life, access 24/7)'. 93.1% strongly agreed or somewhat agreed that 'it provides the opportunity to interact and network with colleagues'. Only 21.4% strongly agreed or somewhat agreed that 'it makes me feel isolated and lose interest'. 83.7% strongly agreed or somewhat agreed that 'it enables me to develop clinical skills (taking a temperature, blood or urine tests, handwashing)', and finally 89.3% strongly agreed or somewhat agreed that 'it is dependent on the teachers specific level of skills and competencies' (Table 4).

There is some, albeit older, evidence to suggest that many professionals prefer traditional face to face delivery methods over online programs (Mamary & Charles, 2000; Stewart & Khadra, 2009). Specifically, online learning may not appeal to those who prefer face-to-face contact with teachers or fellow learners. Also, interactions in traditional CPD activities go beyond the classroom to other areas, including coffee breaks, which may foster networking and other collaborations. There may only be possible through socialization (Praharaj & Ameen, 2020).

Experience and opinions about Mandatory education and training

In response to the questions about their participation in mandatory education and training, 85.7% strongly agreed or somewhat agreed that they 'find mandatory CPD engaging and meaningful'. 36.4% strongly agreed or somewhat agreed that 'often when doing mandatory CPD online, I don't review the content but skip straight to the assessment & print the certificate' (Table 5).

Experience and opinions about support received with education and training in the workplace

In response to the questions about support they receive with education and training in the workplace 92.3% strongly agreed or somewhat agreed that 'regardless of how CPD education and training is delivered they need to be supported in the workplace to implement my new knowledge and skills' (Table 6)

Responses to open-ended questions

Additional comments on Synchronous Online education and training:

A total of fifty respondents provided additional comments on synchronous online education and training, of which 34 preferred Synchronous Online education and training because it was convenient, flexible, valuable, and practical. However, nine said that it could be more engaging by increasing interaction between the lecturer and the learners, as well as between learners. Other respondents commented that they would appreciate more support to improve their computer skills, and others suggested to provide learners with complete information about online courses before starting.

Additional Comments about asynchronous online education and training:

Fourteen respondents provided additional comments on asynchronous online education and training. The main comments provided by the respondents about asynchronous online education and training were: "it is difficult to check effectiveness of learning"; "there should be more asynchronous Online Learning available for free"; "it is great for extra learning". Two respondents preferred Blended learning because asynchronous online education require parts to be face-to-face, and another respondent commented that interaction is key to effective training and learning in general.

Additional Comments about Face-to-face learning and training:

Twenty respondents provided additional comments on to Face-to-face learning and training and their main comments were: "Face-to-face education and training is preferred for clinical skills"; "Face-to-face activities are more difficult to organize"; "the quality of Face-to-face learning depends a lot on the level of involvement of the tutor and the group of learners", and "on the size of the class and skill-mix of the group". Finally, two respondents preferred Blended learning because it combines the advantages of face-to-face and online learning.

Optional open-ended question:

The last question on the questionnaire participants were asked their 'opinion about education and training in their workplace. How would they like education and training to be delivered? What is important for their learning needs?' A total of 45 respondents provided their opinions about education and training in their workplace, how they would like education and training to be delivered, and what they considered important for their learning needs.

Eleven respondents said that they preferred workplace education to be Face to Face, because learning in this way is more effective, it is easier to get handouts and notes, it enables to build relations with peers and teachers, enables more interaction and learning, and it is good for practical learning.

Another 11 respondents preferred workplace education to be blended, because it offers more opportunity for flexibility for those who cannot attend in person, it enables to cut costs on travelling and time, by doing theory online and then practice face-to-face, thus also combining the convenience of online with the opportunity to interact with tutors and colleagues.

Another nine respondents said that they would like education in their workplace in general to be flexible and with learning materials easy to access, receive support and help to attend any kind of training, facilitate the implementation of new knowledge and skills learned, be relevant to their practice, should allow online group learning with own colleagues as a class, ensure protected time or paid time back, courses should be shorter and have the chance to skip those you are not interested in, training should be regular and ongoing to keep staff updated, and lecturers should have good knowledge, experience and teaching skills.

Recommendations

RECOMMENDATIONS

This report offers a series of key recommendations for program developers, workforce leaders, and policy makers, based on the findings of the present study on the three main modalities for delivery of education and training [synchronous online education (live online), asynchronous online education (not live online) and in-person education (face to face)]. This will help to ensure effective healthcare workforce development. The recommendations can serve as a scaffold to guide CPD providers on how to achieve excellence in workplace learning and teaching and develop advanced competencies and skills required to effectively address the increasingly complex healthcare needs of their patients. This for instance, could also be achieved through the use of micro-credentialling. Consequently, more advanced competencies and skills, combined with career development can encourage higher levels of job satisfaction and higher retention rates. (Hariyati & Safril, 2018; Hearle & Lawson, 2019; Vázquez-Calatayud et al., 2021)



PRACTICAL STEPS FOR ACTION

One of the positive results of this study for LHP Skillnet is that they will be facilitating coaching and mentoring programmes (Quality and Qualifications Ireland level 6 and at Professional Diploma level). The aim is to support and enhance clinical education in practice for LTC workers. This aligns with one of the key recommendations regarding knowledge translation. Participation of LTC workers in this programme may have a positive impact on two levels:

- Creating a more positive learning environment in the workplace allowing for the translation of knowledge into practice.
- Providing LTC staff interesting education and training with the opportunity for career development and advancement.

A recent rapid review by King et al 2021 on the how to maximise the impact of CPD in nursing found that workplace coaching support following off-site education and training including online education had a positive impact on work performance for nurse managers and their staff. They also found that strong enabling leadership and a positive workplace culture was another factor that optimised the impact of CPD in nursing.

FIGURE 3 > Key Recommendations for Action

Key Recommendation Knowledge Translation (ref. Theme 3)

- Learning activities require active support by managers
- > Facilitation is an important factor and an active ingredient in knowledge translation
- > Requires someone to take on the role of facilitator, coach or mentor in the workplace
- ▶ Reinforce off site and online learning in the workplace to make it more meaningful
- ▶ Follow-up integration in collaboration with the employer

Key Recommendation: Teacher training (ref. Themes 2 and 5)

- Support training of local facilitators
- ▶ Need to invest in the people that deliver training.
- > Develop the digital pedagogical competences of healthcare educators
- Enhance communication
- ▶ Social Presence Online
- Implement digital upskilling strategies for online and blended learning.

Key Recommendation: Course design (ref. Themes 1 and 5)

- Include the learner from the initial design phase.
- Get feedback from the learner at various stages of the design process.
- > Include other stakeholders, managers, owners, public and patient involvement
- Building more choice for the learner
- Promote flexible blended educational modalities
- Incorporating action based learning where individual projects are part of what learners are doing in the clinical setting rather than an add-on exercise.
- CPD activities should be designed based on the learning needs of the LTC workforce, especially in relation to advanced competencies such as gerontological nursing, patient education, communication, teamwork and technology.

Key Recommendation: Evaluate engagement strategies (ref. Themes 2 and 4)

- ▶ Incorporate evaluation of engagement strategies into the evaluation of the programme.
- ▶ Evaluate:
 - learner-to-learner engagement strategies.
 - learner-to-instructor engagement strategies.
 - learner-to-content engagement strategies.
- > Strategies that worked, how this could be improved



5 Conclusions

CONCLUSIONS

This study aimed at gaining a deeper understanding of the attitudes, experience, and preferences with three teaching and learning modalities for CPD in the private LTC workforce in the Republic of Ireland. Asynchronous online education and training, although considered convenient and flexible, was the least appreciated in terms of engagement and learning practical skills. Some respondents suggested that this type of education should be available for free, in short sessions, and mainly focused on extra learning activities that for instance with the aim of updating or adding some details to specific points already taught during a face-to-face session. Higher levels of satisfaction were expressed for synchronous online teaching, because unlike asynchronous online education, this was described as being more interactive as it offered the opportunity to receive immediate feedback from teachers and, if adequately designed, also the opportunity to interact with peers attending the same synchronous online activity. It also provides structure and more opportunities to network with peers.



CPD activities delivered through face-to-face teaching and learning was the mode of delivery that most of the LTC workers preferred, mainly because it enables to build relations with peers and teachers, and through this interaction, learning was considered more effective and meaningful, particularly when it comes to developing and practicing new clinical skills. A similar satisfaction and preference were also found with the blended modality, a planned combination of (synchronous and asynchronous) online and face-to-face learning activities. This modality was also appreciated by many respondents, particularly because it offers the opportunity to attend courses for those that have caring responsibilities and cannot participate in person, and enables participants to cut costs on travelling and time. This aligns with the findings that online is convenience and supports the idea that we don't all have to learn in a physical space, all together at the same time. There are now more choices available for learning. Theory can be provided online, and the practical elements completed face-to-face, thus combining the convenience of online with the opportunity of learning practical skills effectively by interacting with tutors and colleagues. A key finding from this report is that according to participants face to face and blended models were so close in terms of popularity. This demonstrates that we are now beginning to address some perceptions that face to face is better quality whereas online is not.

It ultimately comes down to the design of the courses, the competences of those delivering, activating, and leading the course, the learners and the context. There is a need to develop the digital pedagogical competences of healthcare educators and educators in general. Since the pandemic a significant proportion of education and training has moved online however, teaching in an online environment requires a different set of competencies and skills (Ní Shé, C., 2019). In order to improve the quality and experience of online and blended learning, there need to be an investment in the digital pedagogical competences and skills of educators.

Training needs to be bespoke for the context. However, the most interesting finding of this study could be summarized in one word: "engagement". The concept described by this term could be the key to the enhancement and development of CPD for the private LTC workforce going forward. This key aspect needs to be carefully considered when designing any kind of CPD activity, particularly in the field of LTC, where workers are often faced with high levels of burnout due to their inability to cope with the increasing complexity of older people's health conditions often exacerbated by co morbidities (Neller et al., 2021; Surr et al., 2019). Engagement in CPD training and education could be fostered in various ways, such as ensuring that those delivering the education and training have the right set of skills and pedagogical competences to adequately engage and interact with learners, and enable learners to network with their peers in groups.

Through this study, we found that engagement could also be encouraged by offering more flexibility, by adopting for instance a mix of online and face-to-face learning activities (i.e. blended), which combine the convenience of online modalities that ensure a better work-life balance with the educational benefits of face-to-face when learning practical clinical skills. Learners want more variety and different opportunities to interact with the content, the teacher and their peers. So while the focus is ultimately engagement, they want multiple ways to interact.

Regardless of the mode of delivery participants indicated that they need to be supported in the workplace to implement their new knowledge and skills. This requires the support of employers and managers, who could ensure more protected time for learning, technical support and facilitators in the workplace to support uptake and reinforcement of new knowledge and skills in clinical practice. (Hearle & Lawson, 2019). In return, the consequences of successful knowledge translation can be significant, such as more job satisfaction, decreased caregiver burden, higher retention rates, and higher quality services for this frail and vulnerable population (Hariyati & Safril, 2018; Vázquez-Calatayud, Errasti-Ibarrondo, & Choperena, 2021; Rezq & Gutierrez et al 2021).

Knowledge and skills requirements in long-term care have become increasingly complex, which may intensify the skills gaps in the sector. The skills gap may also worsen labour shortages as employers may find it difficult to recruit suitably trained workers. Nurses working in LTC often have to manage complex care needs, including caring for those with chronic diseases. Although nurses are mostly educated to degree level, those working in the sector do not always



pursue specialised training in geriatric care and therefore may lack the necessary skills to deal with residents increasingly complex care needs (OECD, 2020).

The combined results of the study has the potential to help decision-makers in the field of CPD to implement actions to improve the effectiveness of teaching and learning in the LTC setting. We now have new spaces to learn, other than those 'traditional' in-person spaces where we typically taught and learnt at the same time. Now we have new technologies, and better technologies, that allow us to 'reimagine' how we teach, when we teach and where we teach. This has implications for our learners, who ultimately are the key reason we provide education and training, as they too can learn in different spaces, at different times and in different ways. Learners now have choices that they may not have had previously. This requires CPD providers to design and tailor the learning experiences to the contexts they find themselves working in.



6 References

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 \bigcirc \bigcirc Appendix

Appendix

Authors and Contributors:

Dr Catherine Fitzgerald, RCSI

Dr Catherine Fitzgerald is a research fellow with the Faculty of Nursing and Midwifery at RCSI, her current role is to implement and roll out the European Centre of Excellence for Research in Continuing Professional Development (UPGRADE). Catherine works with a team of researchers on a variety of research projects related to CPD. She collaborates with European colleagues on European grant applications. Previously, Catherine has worked as a nurse, midwife and specialist community public health nurse; she has a variety of clinical experience working in Ireland, the UK, Australia, USA and India. She graduated with a Master's in Public Health (MPH), from the University of Alabama at Birmingham USA, and a PhD in Public Health from University College Dublin. During her PhD, she conducted a longitudinal cohort study examining the clinical outcomes of children diagnosed with cystic fibrosis (CF) both clinically and those detected through the newborn bloodspot (NBS) programme. She has presented at numerous national and international conferences, and has published in peerreviewed journals. Her current research interests include health professions education, inter-professional team working LTC research and evaluation of CPD activities.

Ms Carmel Kelly, LHP Skillnet

Carmel Kelly currently works as network manager for leading healthcare providers (LHP) Skillnet, a role she held for six years. LHP Skillnet is a not-for-profit Learning Network co-funded by Skillnet Ireland and member companies. Skillnet Ireland is funded by the National Training Fund through the Department of Further and Higher Education, Research, Innovation and Science. Carmel leads a team of educators and trainers that support the private healthcare sector with workforce education and training. Carmel has extensive experience in education and training having worked in medical and nurse education for 18 years. She has a Master's Degree in Surgical Education from Imperial College London. Carmel also has a background in nursing, with experience in both the acute and long-term care sector. Carmel's research interests include long-term care research, workforce development through innovative teaching and learning activities, and digital pedagogy for CPD.

Mr Tom Lordan LHP Skillnet

A philosophy graduate, Tom has worked as an administrator in the field of healthcare education since 2018, designing and organising programmes for staff across a range of organisations, including nursing homes, home-care agencies, hospitals, primary care centres and industry representative bodies (e.g. NHI, IGPNEA etc.). He is also an art writer, producing reviews, interviews and essays for various publications.

Dr Giuseppe Aleo, RCSI

Dr Giuseppe Aleo is a Post-Doctoral fellow with the Faculty of Nursing and Midwifery at RCSI. His current role is to support the work and research activities at the European Centre of Excellence for Research in Continuing Professional Development (UPGRADE). Giuseppe has a Master's Degree in Foreign Languages and has taught Scientific English for over 20 years to undergraduate, postgraduate and doctoral nursing students in Italy, and has 16 years of experience as a CPD officer. Giuseppe has a PhD in Public Health and Epidemiology from the University of Genoa, Italy.

Professor Thomas Kearns, RCSI

Professor Thomas Kearns is the Executive Director of the Faculty of Nursing and Midwifery. He is responsible for leading and delivering on the strategic intent and operational activity of the Faculty. His career in nursing started in 1980 and he has worked in a variety of clinical scopes across general and psychiatric nursing. Over the last 20 years, Thomas has worked in Professional Regulation, Nursing Policy and Higher Education. Professor Kearns was selected for induction into the 2021 class of Fellows of the American Academy of Nursing. In 2017 Thomas took a sabbatical for 12 months where he worked as interim chief executive officer (CEO) of the International Council of Nurses (ICN) based in Geneva. He was involved in the global launch of the Nursing Now campaign in collaboration with the WHO and initiated the launch of the RCSI Hospital Nursing Now Campaign Group. Thomas is a non-executive director of Axia Digital Ireland, a company that develops software to support learning and development. He is also a part of the Governance of the Dublin Simon Community. He is a member of the Rotunda Hospital Audit committee and is delighted to attend the RCSI hospital Group Directors executive meetings. He has led on scoping the development of a Centre for Nursing and Midwifery Advancement across the RCSI Hospital Group. Thomas' doctorate is in the area of CPD and the maintenance professional competence. He has scoped and developed a the European Centre of Excellence for Research in Continuing Professional Development (UPGRADE) in partnership with colleagues from over 20 European Countries and a number of pan national organisational members.

Ms Pamela Peppard RCSI

Pamela provides comprehensive administrative support to European Centre of Excellence for Research in Continuing Professional Development (UPGRADE). She also assists with the management of departmental finances such as expenses, invoice payment and salaries, maintenance of the Faculty website and social media. Pamela has recently completed an Executive PA Diploma.

Micheal Hallissy: Expert Reviewer H2 Learning

Dr Michael Hallissy is a former primary school teacher who has over 25 years' experience working in the field of digital education. His doctoral research was in the area of online/blended learning and on capturing and sharing teacher practice, specifically focusing on the blend of synchronous and asynchronous learning activities. He worked with the EU Commission's Digital Education Learning, Teaching and Assessment (DELTA) WG between 2018 and 2020 and most recently with the Commission's Schools WG on Blended Learning. As a consultant to the EU DELTA WG he has prepared briefing documents and participated in multiple knowledge sharing events with education leaders in the field of digital education. H2 Learning is managing an Erasmus+ Project, ATS STEM, which is exploring the role of digital technology in supporting formative assessment in STEM in upper primary and lower secondary across eight European countries. He has also worked with Microsoft to develop an online MOOC that helps educators develop their knowledge and understanding of 21st Century Learning Design. He also worked with the Institute of Education in Dublin City University to offer accredited courses to teachers in this field. Michael has an extensive experience of designing online learning programme for teachers and he managed an online Masters programme for teachers on behalf of Hibernia College. Michael has worked with European Commission on developing their DigiComp Framework for Educators and with the World Bank to ensure Turkish teachers had the requisite skills to use digital technology in their Basic Education Project.

TABLE 1 > DEMOGRAPHICS					
AGE Under 25 years Between 25-54 years Over 54 years OCCUPATION	n (%) 10 170 52 n (%)	n (%) 4.3 73.3 22.4 n (%)	YEARS OF EXPERIENCE (LTC) <12 months 1-5 years 6-10 years 11-20 years >/=21 years	n (%) 28 85 43 49 25	n (%) 12.2 37.0 18.7 21.3 10.8
Registered nurse Manager (nurse) Manager (other) Healthcare Assistant	32 72 22 98	14.0 31.7 9.6 43.0	HIGHEST EDUCATIONAL QUALIFICATION Third level education	n (%)	n (%)
Other FIRST LANGUAGE IS ENGLISH Yes No	4 n (%) 181 51	1.7 n (%) 78.0 22.0	(Bachelor's Degree or higher) Post- Secondary Non Tertiary Education Secondary Education (high school/secondary school)	140 61 28	61.2 26.6 12.2

TABLE 2 > SYNCHRONOUS (LIVE ONLINE) ONLINE TEACHING AND	LEARNING				
	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
	n (%)	n (%)	n (%)	n (%)	n (%)
FLEXIBILITY & CONVENIENCE is very convenient (eliminates travel, costs, childcare needs, etc.) is flexible (can do it at a time that suits me, fits around my life, access 24/7) allows easy access to teaching materials and lecture recordings whenever I need them. is easier to schedule and arrange. NETWORKING	163 (75.8) 122 (54.7) 133 (61.9) 127 (59.1)	42 (19.5) 56 (26.0) 63 (29.3) 64 (29.8)	2 (0.9) 13 (6.0) 10 (4.7) 17 (7.9)	8 (3.7) 20 (9.3) 6 (2.8) 6 (2.8)	0 (0.0) 0 (0.0) 3 (1.4) 3 (1.4)
 provides the opportunity to interact and network with colleagues provides the opportunity to effectively conduct learning activities as a group with colleagues offers opportunities to interact with the teacher and ask questions 	70 (32.6) 76 (35.3) 97 (45.1)	82 (38.1) 76 (35.3) 72 (33.5)	27 (12.6) 28 (13.0) 24 (11.2)	30 (14.0) 27 (12.6) 21 (9.8)	6 (2.8) 8 (3.7) 1 (0.5)
ENGAGING & MEANINGFUL LEARNING enables me to effectively build new knowledge enables me to focus on what's being taught without distractions. allows me to develop my IT skills when using technology makes me feel isolated and lose interest enables me to develop clinical skills (taking a temperature, blood or urine tests, handwashing)	131 (60.9) 103 (47.9) 117 (54.4) 23 (10.7) 48 (22.3)	74 (34.4) 74 (34.4) 56 (26.0) 49 (22.8) 44 (20.5)	6 (2.8) 13 (6.0) 33 (15.3) 36 (16.7) 54 (25.1)	3 (1.4) 19 (8.8) 8 (3.7) 44 (20.5) 41 (19.1)	1 (0.5) 6 (2.8) 1 (0.5) 63 (29.3) 28 (13.0)
RESOURCES & SUPPORT is complicated to access and use, I require IT support is better when provided with PDFs and/or printed learning materials should have more rules for learner conduct, data and privacy is dependent on the teachers specific level of skills and competencies ensures psychological safety (i.e. I feel comfortable talking about potentially sensitive issues)	23 (10.7) 67 (31.2) 28 (13.0) 81 (37.7) 64 (29.8)	50 (23.3) 79 (36.7) 52 (24.2) 96 (44.7) 76 (35.3)	37 (17.2) 45 (20.9) 76 (35.3) 26 (12.1) 51 (23.7)	48 (22.3) 18 (8.4) 36 (16.7) 8 (3.7) 18 (8.4)	57 (26.5) 6 (2.8) 23 (10.7) 4 (1.9) 6 (2.8)

TABLE 3 > ASYNCHRONOUS (NOT LIVE ONLINE) ONLINE TEACHING AND LEARNING						
	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	
	n (%)	n (%)	n (%)	n (%)	n (%)	
FLEXIBILITY & CONVENIENCE						
is very convenient (eliminates travel, costs, childcare needs, etc.)	127 (76.5)	31 (18.7)	1 (0.6)	5 (3.0)	2 (1.2)	
is flexible (can do it at a time that suits me, fits around my life, access 24/7)	126 (75.9)	24 (14.5)	6 (3.6)	7 (4.2)	3 (1.8)	
allows easy access to teaching materials and lecture	120 (70.7)	24 (14.0)	0 (3.0)	/ (4.2)	3 (1.0)	
recordings whenever I need them.	114 (68.7)	33 (19.9)	13 (7.8)	3 (1.8)	3 (1.8)	
is easier to schedule and arrange.	112 (67.5)	35 (21.1)	7 (4.2)	10 (6.0)	2 (1.2)	
NETWORKING						
provides the opportunity to interact and network with colleagues	49 (29.5)	40 (24.1)	23 (13.9)	20 (12.0)	34 (20.5)	
provides the opportunity to effectively conduct learning		()	()		()	
activities as a group with colleagues offers opportunities to interact with the teacher and ask questions	51 (30.7) 50 (30.1)	39 (23.5) 34 (20.5)	28 (16.9) 22 (13.3)	19 (11.4) 27 (16.3)	29 (17.5) 33 (19.9)	
	00 (00.1)	34 (20.3)	ZZ (13.3)	27 (10.3)	33 (17.7)	
ENGAGING & MEANINGFUL LEARNING			40 (50)		1 (0, 1)	
enables me to effectively build new knowledge enables me to focus on what is being taught without distractions.	92 (55.8) 87 (52.7)	54 (32.7) 50 (30.3)	13 (7.9) 12 (7.3)	5 (3.6) 12 (7.3)	1 (0.6) 4 (2.4)	
allows me to develop my IT skills when using technology	87 (32.7) 74 (44.8)	50 (30.3) 51 (30.9)	12 (7.3) 18 (10.9)	17 (10.3)	4 (2.4) 5 (3.0)	
makes me feel isolated and lose interest	21 (12.7)	31 (18.8)	36 (21.8)	29 (17.6)	48 (29.1)	
enables me to develop clinical skills (taking a temperature,	21(12.7)	51 (10.0)	50 (21.0)	27(17.0)	40 (27.1)	
blood or urine tests, handwashing)	38 (23.0)	43 (26.1)	37 (22.4)	23 (13.9)	24 (14.5)	
RESOURCES & SUPPORT						
is complicated to access and use, I requires IT support	22 (13.3)	29 (17.5)	28 (16.9)	33 (19.9)	54 (32.5)	
is better when provided with PDFs and/or printed learning materials	58 (34.9)	51 (30.7)	40 (24.1)	10 (6.0)	7 (4.2)	
should have more rules for learner conduct, data and privacy	24 (14.5)	37 (22.3)	54 (32.5)	25 (15.1)	26 (15.7)	
is dependent on the teachers specific level of skills and competencies	49 (29.5)	74 (44.6)	25 (15.1)	9 (5.4)	9 (5.4)	
ensures psychological safety (i.e. feel comfortable talking about						
potentially sensitive issues)	47 (28.3)	55 (33.1)	39 (23.5)	15 (9.0)	10 (6.0)	

TABLE 4 > MANDATORY EDUCATION AND TRAINING					
	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
	n (%)	n (%)	n (%)	n (%)	n (%)
I find mandatory CPD engaging and meaningful	79 (47.0)	65 (38.7)	13 (7.7)	10 (6.0)	1 (0.6)
I develop new knowledge and skills when doing mandatory CPD	92 (54.8)	55 (32.7)	12 (7.1)	8 (4.8)	1 (0.6)
The content for mandatory CPD education and training is					
interesting and relevant to my clinical practice.	95 (56.5)	55 (32.7)	13 (7.7)	5 (3.0)	0 (0.0)
Often when doing mandatory CPD online, I don't review the content					
but skip straight to the assessment & print the certificate	31 (18.5)	30 (17.9)	27 (16.1)	33 (19.6)	47 (28.0)
I am satisfied with the format and delivery of					
Mandatory Education and Training.	58 (43.3)	53 (39.6)	13 (9.7)	8 (6.0)	2 (1.5)

TABLE 5 > FACE-TO-FACE EDUCATION AND TRAINING					
	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
	n (%)	n (%)	n (%)	n (%)	n (%)
FLEXIBILITY & CONVENIENCE					
is very convenient (eliminates travel, costs, childcare needs, etc.) is flexible (can do it at a time that suits me, fits around	38 (23.9)	28 (17.6)	22 (13.8)	42 (26.9)	29 (18.2)
my life, access 24/7)	30 (18.9)	21 (13.2)	26 (16.4)	41 (25.8)	41 (25.8)
allows easy access to teaching materials and lecture	<i>.</i>	<i>,</i> ,	<i>,</i> ,	<i>.</i>	
recordings whenever I need them.	45 (28.3)	44 (27.7)	21 (13.2)	27 (17.0)	22 (13.8)
is easier to schedule and arrange.	27 (17.0)	42 (26.4)	29 (18.2)	30 (18.9)	31 (19.5)
NETWORKING					
provides the opportunity to interact and network with colleagues provides the opportunity to effectively conduct learning	93 (58.5)	55 (34.6)	4 (2.5)	5 (3.1)	2 (1.3)
activities as a group with colleagues	91 (57.2)	57 (35.8)	5 (3.1)	4 (2.5)	2 (1.3)
offers opportunities to interact with the teacher and ask questions	110 (68.2)	42 (26.4)	3 (1.9)	3 (1.9)	1 (0.6)
ENGAGING & MEANINGFUL LEARNING					
enables me to effectively build new knowledge	97 (61.0)	48 (30.2)	8 (5.0)	3 (1.9)	3 (1.9)
enables me to focus on what's being taught without distractions.	77 (48.4)	44 (27.7)	16 (10.1)	18 (11.3)	4 (2.5)
makes me feel isolated and lose interest	17 (10.7)	17 (10.7)	26 (16.4)	39 (24.5)	60 (37.7)
enables me to develop clinical skills (taking a temperature, blood or urine tests, handwashing)	89 (56.0)	44 (27.7)	18 (11.3)	4 (2.5)	4 (2.5)
RESOURCES & SUPPORT					
is better when provided with PDFs and/or printed learning materials	74 (46.5)	51 (32.1)	22 (13.8)	5 (3.1)	7 (4.4)
is dependent on the teachers specific level of skills and competencies ensures psychological safety (i.e. feel comfortable talking about	93 (58.5)	49 (30.8)	13 (8.2)	2 (1.3)	2 (1.3)
potentially sensitive issues)	50 (31.4)	53 (33.3)	36 (22.6)	11 (6.9)	9 (5.7)

TABLE 6 → SUPPORTING LEARNING IN THE WORKPLACE

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
	n (%)	n (%)	n (%)	n (%)	n (%)
Regardless of how CPD education and training is delivered I need to be supported in the workplace to implement my new knowledge and skills When I learn something new I need support in the workplace to reinforce my new knowledge and skills (e.g. learned how to take blood on a CPD Course, need to be supported to develop my skills	109 (64.9)	46 (27.4)	11 (6.5)	2 (1.2)	0 (0.0)
in the workplace)	111 (66.1)	38 (22.6)	13 (7.7)	5 (3.0)	1 (0.6)
After I complete a CPD activity, I am encouraged and supported in my workplace to implement my new knowledge and skills.	89 (53.0)	57 (33.9)	17 (10.1)	4 (2.4)	1 (0.6)





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