Workplace learning through interaction

Valorisation

High-quality health care is the ultimate aim of training our future medical workforce. As workplace learning is and will continue to be the backbone of postgraduate training, a more in-depth exploration of this process is crucial. This PhD has provided me with a better understanding of the mechanisms through which social relationships hamper and stimulate workplace learning. Dynamic and bidirectional relationships with members of the healthcare team can create learning opportunities with which residents can engage; however, this requires specific awareness and attention from the parties involved. In this sense, this PhD provides the stepping-stones to be used by directors of postgraduate training programmes, supervisors, members of healthcare teams and residents to better orchestrate learning in the clinical workplace. Enabling social relationships to act as catalysts for workplace learning includes two approaches: re-addressing the structure of clinical workplaces and training the involved stakeholders.

Traditionally, clinical supervision has been structured in a way that allows progressive residents' independent practice while decreasing supervisor support according to residents' training level. However, the complexity of the workplace as a learning environment might collide with this overarching aim, as residents face new and challenging tasks even at senior levels. Our findings, for example, point to the importance of encouraging continuous and long-lasting interactions between residents and clinical supervisors. For this continuity to be fruitful regarding resident learning, supervisory interactions need to be dynamic and bidirectional, meaning that clinical supervisors should use an array of teaching methods while engaging with their residents to find the right balance between resident autonomy and support. Programme directors could create opportunities for supervisory interactions in the later stages of training to allow residents and supervisors to interact during their daily activities. For instance, in an anaesthesiology programme, operating room schedules could include supervisory dyads to be assigned to a surgery programme for an entire day. In the case of a surgical programme, senior residents could be paired with supervisors during a case so that the supervisor could act as an assistant during the surgery. This promotes supervisory dyads to try and figure out how to work together as a team and downplays the traditional supervision encounter. In our anaesthesiology department, we have encouraged supervisors to think about their encounters with residents in this particular way, emphasising the need for promoting residents' self-directed learning while formulating new and challenging learning goals. Additionally, we also promote open dialogue between supervisors and residents to negotiate the structure of their encounter and to determine how their interaction could assist them in achieving common goals concerning patient care while nurturing residents' unique learning needs.

In addition to promoting longitudinal and continuous supervisory encounters, programme directors and clinical supervisors should also encourage residents' engagement with the broader healthcare team. Nurses, nurse assistants, pharmacists, therapists and physicians from different disciplines have an enormous influence on residents' learning. The more social relationships residents can consolidate, the more acceptability they will

have and the more learning opportunities they will experience. I frequently advise my residents to engage with all members of every new team they enter while determining those members' roles within the team. This includes introducing themselves to all the members, promoting open dialogue about their work and understanding how that person could nourish their learning agenda.

As we explained earlier, re-structuring the clinical setting configuration to allow for more longitudinal and continuous supervisory encounters is just one step towards optimising workplace learning. For such strategies to succeed, the stakeholders involved (residents, supervisors, members of the healthcare team) should be mindful of how such sustained relationships could assist residents' training. This involves formal training in how residents and the other members of the healthcare team could initiate and orchestrate purposeful interactions during their daily routines. Continuous professional development programmes aimed at the supervisory skills of physicians could be further improved to include other members of the healthcare team and even the resident themselves. Such programmes could emphasise the social dimensions of workplace learning. This includes the teaching methods that could be used based on residents' training level, such as coaching for intermediate residents and reflection for senior ones. It also includes teaching about the way residents and supervisors could adapt to each other to learn how to work together as a dyad and how they can negotiate a proper balance of autonomy and support. The rest of the healthcare team could also consider the ways in which they are integrating new residents into their daily activities, and how this type of participation is helping residents to achieve their own learning goals. Not all residents are interested in full inclusion within the team, which means that some residents are interested in participating in those clinical team activities that are of special interest to their learning trajectories. Our faculty is currently working on a professional development programme for members of the different hospital healthcare teams, using sociocultural learning theories as a framework. We are planning reflection sessions in which members of a given healthcare team think about and discuss their roles within the team and how they are currently assisting residents' training. The tutor will help them understand how their interactions with the residents could be hindering or enabling residents' workplace learning. The sessions will end with specific tasks to be applied to their daily activities to optimise workplace learning, with follow up sessions created to assess and refine such activities.

By improving residency training, we are ultimately improving healthcare. Our results provide innovative starting points to achieve this goal by purposefully exploring the subject from a sociocultural learning vantage point. Along with several scholars from around the globe, we contribute to an on-going dialogue about the complexity of workplace learning in residency learning. Unravelling this complexity could not be attained by relying solely on cognitivist theories of learning but by exploring learning as a social phenomenon. Our thesis might assist new researchers in medical education interested in sociocultural workplace learning approaches in formulating and conducting their own

research. Understanding workplace postgraduate learning as participating and interacting with other members of healthcare teams also opens up new ways of improving residency training. Instead of thinking and focusing on how residents acquire predetermined outcomes, it is essential to realise how members of the healthcare team influence the attainment of these outcomes. Demonstrating the value of using a wider lens when looking at these interactions provides avenues for improving interprofessional collaboration and learning in the workplace.