Going soft on soft skills:
A qualitative study of student supervisor perspectives of the impacts of COVID-19 on soft skill development in students

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Abstract: Much has been documented about the impacts of the COVID-19 pandemic on hard skill development (i.e., skills and knowledge) during clinical placements. Little is known, especially from a student supervisor perspective, on the impacts of the pandemic on soft skills (e.g., communication, teamwork) during student clinical placements. A mixed methods online survey was administered to healthcare workers in 2021. The survey collected textual data from 216 respondents through 22 questions. Using a hybrid content analysis approach, data were analysed deductively using the Canadian Interprofessional Competency Framework domains, and inductively. Three categories were developed namely reduced access impairing soft skill development, adjusted learning experiences strengthening soft skills, and telehealth being a barrier to soft skills. Student supervisors, healthcare organisations, and policy makers can use this information to guide new graduate support plans, additional learning strategies, appropriate telehealth infrastructure, and staff training to promote soft skills. Collectively, these measures can be useful in ensuring future pandemic preparedness.

Keywords: student supervision; clinical education; soft skills; interprofessional education and collaborative practice; COVID-19 pandemic

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Introduction

Clinical placements in health professional education play an important role in the development of hard skills (e.g., technical skills, knowledge) as well as soft skills or non-technical skills (e.g., communication, teamwork, collaboration, emotional regulation) in pre-qualification students. Non-technical skills or soft skills are the cognitive, social, and personal resources skills that complement technical skills, and contribute to safe and efficient task performance (Flin, O'Connor and Crichton, 2008). The integral role of soft skills was recognised by Charles Mann as early as 1918 in the engineering field. He noted the importance of personal qualities including common sense, integrity, resourcefulness, initiative, tact, thoroughness, accuracy, and efficiency in the workplace (Mann, 1918).

The importance of soft skills in healthcare practice is gaining more attention recently (Karimi, 2020). Inadequate soft skills were found to be a contributing factor in 70% of in-hospital adverse events in a literature review (Fletcher *et al*., 2002). In a US grounded theory study of 27 STEM employers, the five most valued soft skills of 2020-2025 were identified to be leadership, human connection, communication, creativity, and collaboration. This study also noted that employers placed particular emphasis on graduates' ability to draw upon their humanity in conducting daily work tasks (Karimi, 2020). Soft skills are said to be of paramount importance for the 21st century workforce (Dean, 2017) and to tackle complex health challenges (Ndejjo *et al*., 2022). As such, it could be argued that soft skills are 'essential' skills. Interprofessional education and collaborative practice (IPECP) provides a framework to develop soft skills such as teamwork, communication, conflict resolution, and collaborative leadership as outlined in the Canadian Interprofessional Health Collaborative Framework (CIHC, 2010). IPECP has been positioned as a key strategy moving into the post-pandemic period to prevent a parallel pandemic of healthcare worker burnout through building individual and team resilience (Khalili *et al*., 2021).

The COVID-19 literature relating to the impact of the pandemic on clinical education is concentrated on student experiences and views, as well as disruptions to hard skills (Hoang *et al*., 2022; Martin *et al.,* 2022; Ofori-Manteaw, Dzidzornu and Akudjedu, 2022; Rasmussen *et al.,* 2022). One medical student has well-summarised the impacts of adjusted learning strategies implemented through the pandemic on communication skill development. They argue that video teaching and interactions have limited the development of interpersonal skills, confidence to speak with

patients and discuss patient care with colleagues (Raymond-Hayling, 2020). Confirming this, other students have noted the potential role of telehealth and telemedicine utilised instead of face-to-face clinics, in diminishing opportunities to acquire communication skills (Kotecha and Sanghera, 2022). A study of 286 medical students volunteering in Brazil during the pandemic identified that these opportunities led to the development of knowledge and work-related competencies over soft skills such as leadership (Siqueira *et al.,* 2022). Little is known about this from the student supervisor perspective.

Although clinical placement structure and duration vary across health professions, teaching and learning practices remain comparable. The COVID-19 pandemic affected all professions across all healthcare contexts. Most healthcare service delivery was shifted to telehealth due to diminished face-to-face opportunities (Adelman, Fant and Summer, 2021). The aim of this study was to explore the impacts of the COVID-19 pandemic on soft skill development in students from a student supervisor perspective across medicine, nursing, midwifery, and allied health.

Methods

Design

The overall study used a mixed methods survey to collect numerical and free text data. This study reports findings from the analysis of textual data. Findings from the quantitative data will be reported separately.

Setting and participants

The study was conducted in Queensland (Australia) in four regional and rural public health services and corresponding primary health networks, following the footprint of one of the study partner organisations (i.e., The University of Queensland Rural Clinical School). These healthcare settings included acute, sub-acute, and community health settings. Eligible respondents were student supervisors who were doctors, nurses, midwives, and allied health professionals (from: audiology, clinical measurement science, exercise physiology, medical radiation, music therapy, nutrition

and dietetics, occupational therapy, pharmacy, physiotherapy, podiatry, prosthetics and orthotics, psychology, social work, and speech pathology), who had been in their role for at least three months at the time of the study. A student supervisor was defined as someone who had supervised at least one student on a clinical placement prior to the time of this study. Included student placements were from multiple universities located both within Queensland and inter-state. Therefore, the type, length, and nature of placements typically vary between days and months, dependent on the profession and university. This was considered while developing the survey.

Outcome measure

The survey was developed by the research team following a literature review. It consisted of 35 Likert scale and closed (e.g., yes/no) questions overall, with options for free text comments (i.e., textual data) provided for 22 of those questions. The survey was piloted with seven healthcare workers and academics prior to being finalised. The questions were designed to understand the nature and extent of disruption to student placements, clinical supervision, and learning including soft skills in healthcare settings. Respondents were asked to consider their experiences from the onset of the COVID-19 pandemic when answering the survey questions. The survey tool has been included as supplementary material.

Procedure

Data were collected between May and August 2021 through an online, anonymous survey using Qualtrics™. The survey link was distributed to the study population using e-mail distribution lists of professional and health service networks, newsletters, and organisational social media. Three reminders were used to prompt potential respondents using the same channels.

Data analysis

Forty two pages of free text comments from 22 questions were collated, cleaned, and analysed using a content analysis approach by two researchers

with experience in clinical education, supervision, and qualitative research (PM and SK). Initially a Priori codes (i.e., deductive codes) were developed based on the CIHC framework's (2010) competency domains to identify different soft skills described within the dataset. Subsequently, a hybrid approach was utilised which enabled to also develop categories in an inductive way (i.e., informed by the data) (Hsieh and Shannon, 2005; Stuckey, 2015). To aid interpretation, data were matched with participant characteristics such as their profession, experience in their profession and role, and in student supervision. Both researchers involved in the data analysis process met throughout the analysis process to discuss the coding process, agree on categories, test assumptions, and to minimise any subjective biases (Tracy and Hinrichs, 2017).

Ethics

The ethics approval for this study was obtained from Darling Downs Health Human Research Ethics Committee for multisites (Ref: HREA/2020/QTDD/69958; Date: 10/11/2020), followed by site-specific approvals from all the participating organisations.

Findings

Overall, 216 respondents initiated a response to the survey, although only 180 of them provided background information. Over 63% (n=114) had ten or more years' experience in their discipline. A majority of respondents (n=163; 90.6%) had supervised at least one student in their current role. Forty one percent (n=74) were experienced supervisors having supervised students for over ten years, and 43% (n=77) having supervised students from between two and ten years. Over eight percent (n=15) reported being new to student supervision having supervised no more than one student, whereas 70.56% (n=127) had supervised two or more students.

Impact of the COVID-19 pandemic on soft skill development of students during clinical placements spanned three categories, namely: reduced access impairing soft skill development, adjusted learning experiences strengthening soft skills, and telehealth being a barrier to soft skills.

Reduced access impairing soft skill development

Supervisors described pandemic-induced reduction in student access to the clinical environment, patients, other team members, places, and team processes as a key factor in impeding development and consolidation of soft skills.

Reduced access to people (i.e., staff, patients, and carers)
Student access to supervisors, other students, and co-workers in the team were noted to be impacted due to absences from work due to sickness, vaccination status, placement cancellations, or being redeployed elsewhere. This reduced student access to key people in the clinical environment. An experienced senior physiotherapist with extensive experience in student supervision noted:

> *Staff resources were removed from outpatient services and re-deployed elsewhere.*

> *Some clinical areas such as chemotherapy and operating theatres did not allow students due to a concern about a lack of personal protective equipment (PPE). While others noted that a lack of ability for students to see a client progress from acute through to community care impeded their understanding of how integrated and holistic care works. Lack of access to carers due to visitor restrictions and their hesitance to come into the healthcare setting, meant that students could not involve them in healthcare planning, impacting on the development of person-centred care competencies. These situations reduced access to patients and carers, impacting on competencies in communication, conflict resolution, and patient-centred care. An experienced mental health nursing supervisor commented:*

> The placement was boring and lacked the opportunities usually presented to learn or experience managing consumers in the community… Particularly in mental health, placements are crucial for students…without seeing disease progression in the community and management in the community, the student is unprepared for working with these clients when they present to hospital or in a ward setting.

> *The reduced access to patients and carers created a lack of learning opportunities for students interrupting the development of their leadership skills. An experienced dietetics supervisor noted:*

> *Less exposure and independence during placements as the whole hospital was*

navigating an unknown situation, so students often had to take more direction at the end of placement than traditionally needed.

Reduced access to places and processes (i.e., teamwork and collaboration)

Others noted that students could not observe how a team would usually function, interrupting their ability to get to know the team culture, and socialisation skills. There were also issues with space due to physical requirements. This reduced access to informal and opportunistic interactions such as corridor and tearoom chats, thus impacting building rapport, communication, understanding of team members' roles, and interprofessional and collaborative working. An experienced supervisor from an allied health discipline who had extensive experience in facilitating a range of student placement models noted that:

Spacing restrictions in shared lunch room and in MDT (Multi-disciplinary team) meetings reduced professional socialisation.

Another experienced allied health supervisor concurred by noting that:

Less informal networking opportunities were available. For example, lunches, morning teas etc. were cancelled due to COVID restrictions.

Many respondents noted that COVID-19 had altered team dynamics and interactions:

Not able to see the dynamics of a normal perioperative team. (Experienced doctor in a student supervisor support role)

Less opportunities for team boding and social interactions to develop connection which also had a flow on effect with other disciplines reducing the offers to shadow and learn about other disciplines during this time. (Experienced psychology supervisor)

Students unable to see business as usual and how professions work together; very siloed due to COVID and less interaction. (Experienced allied health supervisor)

Masks were also noted to further impede communication. An experienced doctor noted that:

Lack of exposure to the workplace and use of PPE on shift were limiting communication (with the student).

Adjusted learning experiences strengthening soft skills

The pandemic provided an opportunity for students to develop soft skills such as flexibility, adaptability, resilience, project management, and new ways of learning. One experienced dietetics supervisor said:

Even in a changed environment in the workplace it is important that they (students) are exposed and learn coping/management mechanisms to set them up for the future.

Other supervisors noted that students who were able to adapt to new and changing environments were more satisfied with the adjusted learning experiences provided, including telehealth. An experienced psychology supervisor who had been in their role for under a year at the time of this study noted:

I had a very innovative student on placement who embraced video conferencing and was flexible and adaptable and highly motivated to learn.

Several supervisors trialled new models of student placement allowing students to take more leadership of their learning. Some used buddy systems, thus facilitating peer learning and support, and collaborative leadership skills. Reduced access to the clinical environment meant that students could engage more in project work, and research, which aided communication and leadership skills development. One experienced nursing supervisor commented:

I feel the pandemic was, in a way, a good thing for students. They will have to learn about a 'regular' ward day; however they would always have the knowledge of how a ward ran during a pandemic.

Telehealth being a barrier to soft skills

Respondents largely noted that their teams were not telehealth-ready at the pandemic onset and that the telehealth infrastructure was less than ideal to facilitate effective student learning, as the primary focus was to deliver patient care. Student involvement in telehealth at the pandemic onset was reported to be diverse, covering a broad range: individual patient appointments to group sessions, observations to assessment or treatment, initial assessment to follow-up sessions, individual profession-specific

care to multi-disciplinary work, and sessions in hospitals to primary care settings. A range of online technology and platforms were used including telephone, Teams, Zoom, and CISCO Jabbar. Supervisors also noted that while some students were keen to engage with telehealth, others were hesitant:

I had two students during that period – one was OK with telehealth, the other one clearly did not want any telehealth appointments. Her reasoning was that it robbed her of the experience of face-to-face learning. (Experienced psychology supervisor)

Telehealth infrastructure and space issues resulted in the student being a passive observer of their supervisor interacting with the patient:

We were not able to work as a full team as per usual as some patients were being reviewed via telehealth which the students could not sit in on due to social distancing… (Experienced nursing supervisor)

When telephone was used, it was noted to be quite limiting as the students were only privy to what the supervisor was saying, thus interrupting the full flow of communication. One experienced supervisor from medicine noted:

Most of the care was provided by phone so students were not actively involved…

Supervisors noted a lack of non-verbal cues in telehealth interactions impacting on students' ability to build rapport, communicate, and pick up on interpersonal dynamics. An experienced social work supervisor said:

While the remote students learnt different things, they did not have the experience of being embedded in an organisation and how that effects the day to day work.

Discussion

This study provides new insights into the impacts of the COVID-19 pandemic on student soft skill development in clinical settings from a student supervisor perspective. As the COVID-19 literature is predominantly on student experiences, this study provides a much-needed triangulation point by adding supervisor perspectives based on their experiences of supervising

students at the onset of the COVID-19 pandemic. While COVID-19 studies of student clinical education have predominantly reported on impacts on hard skills such as clinical skills and knowledge, this study provides information on impacts on soft skills, which are much needed in the emerging healthcare workforce (Karimi, 2020; Prydz *et al.,* 2022). Utilising the CIHC framework to guide analysis not only enabled the study findings to be closely aligned with the IPECP literature but also provides a sound pathway to interpret and translate findings.

Findings of this study show that while the pandemic may have negatively impacted soft skill development during placements, it also provided opportunities. In this study, soft skills that were negatively impacted include communication, teamwork, patient-centred care, and conflict resolution, stemming from reduced access to people and processes. Soft skills that were able to be strengthened included flexibility, adaptability, resilience, and new ways of learning, which contribute to collaborative leadership (i.e., leading oneself through individual accountability of one's own actions and responsibilities and positioning oneself as a leader to engage in collaborative work) (CIHC, 2010; Kramer and Crespy, 2011). As IPECP competencies are inter-linked, supervisors can devise strategies to scaffold student learning so that areas of weakness can be strengthened. This may involve strengthening current learning adaptations and devising new strategies to supplement learning in affected areas (Ardekani *et al*., 2021).

In this study, students that were resilient, open to learning in new ways, and who took ownership of their learning experiences were able to make the most of their placements through a challenging period. Supervisors were generally able to adapt their practice and teaching of students and found it easier to navigate the placement when the student had the above-mentioned attributes. The role of buddy systems, new placement models, utilising telehealth in placements, and video-teaching need to be further explored. Evaluation of innovative strategies and models utilised during these unprecedented times are essential as they can influence their sustainability (OECD, 2020).

While telehealth has its benefits, it can also be a barrier to soft skill development if not set up with due considerations. Recent research indicates that utilisation of supplementary active learning strategies including the use of role plays, videos, and simulation, to overcome the drawbacks of using technology in healthcare are vital in promoting soft

skills in students (Newcomb *et al.*, 2021; Rossi *et al.*, 2021; Stevens *et al.*, 2020). However, the first step is for healthcare organisations to ensure access to appropriate technology and infrastructure that can enable student learning. Subsequently, student supervisors need to be trained in technology-enhanced learning and assisted to devise additional learning strategies that can be useful in their context to promote student learning and engagement (Ardekani *et al.*, 2021). Such additional strategies will need to be evaluated from student and supervisor perspectives to ensure they are fit-for-purpose.

Implications for practice, policy and research

Student supervisors and universities can be cognisant of soft skills that are more likely to be impacted than others in the event of a future pandemic or unprecedented situations that decreases access to people, places, and processes. Healthcare organisations can incorporate this information in staff support programs, and training for the emerging workforce that is likely to have experienced some of these impacts. This information is expected to be of use in future pandemic preparedness plans, so that soft skill development is also factored in. Future research could investigate the long term effects of the impacts of the pandemic on student soft skill development, and its role in patient care.

Strengths and limitations

This study investigated student supervisors' perspectives and experiences of the impacts of the COVID-19 pandemic on student soft skills during clinical placements to address a gap in the literature. The study was inclusive of healthcare workers from medicine, nursing, midwifery, and allied health. Most studies in this space have been conducted with students, therefore, this study provides a much-needed triangulation point from a student supervisor lens. The study is limited by the use of a self-reported survey that was developed for this purpose, and as it was administered online response rates are unable to be estimated. The survey was administered during a very busy period in healthcare settings, which could have impacted

completion rates, producing a biased sample of respondents. Regardless, the study is strengthened by accessing a broad range of healthcare workers from several healthcare settings at a critical time. Thus, it provides valuable information in understanding the impact of the pandemic on soft skill development during clinical placements.

Conclusion

While the pandemic provided an environment for students to learn new things, reduced access to people, places, and processes, impeded the development of several soft skills in healthcare students undertaking clinical placements. Telehealth, due to a lack of adequate infrastructure and space, also served as a barrier to soft skill development. The CIHC framework can serve as a useful tool in unpacking this issue. Student supervisors, healthcare organisations, and policy makers can use this information to guide new graduate support plans, additional learning strategies, adequate telehealth infrastructure, and staff training. Collectively, these measures can be useful in ensuring future pandemic preparedness, as well as in the rapidly changing healthcare context. Further studies can investigate the long term effects of the impacts of the pandemic on student soft skill development, and its role in patient care.

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