Virtual WIL clinics in medicine: Overcoming the COVID-19 challenge

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In the current context of COVID-19 restrictions, the perceived infection risk in healthcare facilities has resulted in limited opportunities for clinical placements. This paper aims to demonstrate how virtual WIL clinics (virtual simulated general practice clinics), provide an authentic clinical experience and to ascertain whether these virtual clinics allow the practice of generic WIL competencies. The clinics provide students with WIL experience without the face-to-face contact of a physical clinic via telehealth. The practice of WIL through virtual WIL clinics at James Cook University, Australia, is assessed using the Work Skill Development (WSD) framework via GoSoapBox surveys. Students surveyed (N=66) expressed a high level of motivation to engage, reflect and learn through this medium. The survey also highlighted some possible areas of improvement in time management and communication. Virtual WIL clinics are a suitable substitution for WIL clinical activity and ideally suited to the COVID-19 context.

Keywords: COVID-19, medical education, work-integrated learning (WIL), simulation, work skill development (WSD) framework

Work-integrated learning (WIL) is the outcome of increasing pressure from employers to produce work ready graduates (Andrew & Higson, 2008; Borg & Scott-Young, 2020). WIL helps facilitate the transition from a university student to an employable graduate who is technically proficient with non-technical skills and can apply these across a range of different work skills (Jackson, 2016). Patrick et al. (2009) confirm WIL is a powerful vehicle for developing generic or professional skills. It also assists students' transition from educational to professional practice, informed by experience, engagement and reflection (Abery et al., 2015; Billet, 2009; McAlpine & Weston, 2000). In professional courses like medicine, law, engineering, and planning, WIL is a requisite for professional practice. WIL provides a transformative pathway for students to understand and apply their theoretical concepts in the real-life context. It entails personal development and experiential learning (Smith et al., 2009), achieves higher levels of confidence (Khampirat et al., 2019), reflection (Caldicott, 2010; Moon, 2004; Sykes & Dean, 2013), collaboration and communication (Jackson, 2015) and develops professional skills and identity (Trede, 2012). Sullivan (2000) posits developing these professional skills and expertise are at the core of contemporary society and teaching professionalism should ensure the development of practitioners who possess professional identity. Cruess et al. (2014) perceive the acquisition of this professional identity through experiential learning, social interaction, role models and mentors, and explicit and tacit knowledge will allow individuals to "think, act, and feel like a physician" (p. 1447).

For long, a major focus of WIL has been on experiential learning, yet experiential learning makes sense only through critical reflection (Raelin, 1997), thinking about what happened and what the students are learning from the experience (King, 2004). This paper relates to experiential learning in training medical students via clinical practice in contemporary learning, and focusses on professional knowledge acquisition, critical thinking, clinical problem solving, and lifelong professional learning via virtual WIL clinics.

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Work-integrated learning (WIL) traditionally occurs in a physical workplace and includes a diverse range of practices, including clinical education, to align higher education with industry requirements (Cooper et al., 2010). With the interception of COVID-19, medical students in most WIL programs have had clinical placements cancelled (Henry et al., 2020) due to a combination of lack of PPE (personal protective equipment) and clinician concern over COVID-19 outbreaks at their health facilities. This has resulted in a temporary move by universities to online learning (Sandhu & de Wolf, 2020) with innovative teaching workshops to replace or simulate the WIL experience. Typically, medical students undertake rotations (a rotation is several weeks located at a specific clinical placement, for example, obstetrics, general practice) through different clinical disciplines at clinical placements, during their final phase of training, with little class-based teaching. Instead, medical students are placed at clinical facilities that may provide primary or tertiary level care. This work-integrated learning allows them to develop clinical reasoning, communication and practical skills, which will equip them to perform as interns upon graduation and to be work ready. In the current context of COVID-19 restrictions, the perceived infection risk to both students and patients in both primary and tertiary health facilities has resulted in limited, if any, opportunities for clinical placements (Halbert et al., 2020).

The aim of this paper is firstly, to demonstrate how virtual WIL clinics (virtual simulated general practice clinics - vSimGPclinics), provide an authentic clinical experience within a COVID restricted environment, and secondly, to ascertain whether these virtual clinics continue to embody the practice of generic WIL competencies.

BACKGROUND

In the context of COVID-19 restrictions, virtual simGPclinics (vSimGPclinics) were designed for year five (Y5) James Cook University (JCU) medical students to provide a simulated WIL experience during a period when the students were unable to access their traditional WIL experience through clinical placements.

Y5 students are geographically dispersed across Cairns, Townsville and Mackay clinical schools. Students usually (pre COVID-19 restrictions) attend simGPclinic once during their general practice rotation (which is 6 weeks duration), as an adjunct WIL experience to their primary care clinical placements. The simGPclinic involves students conducting face-to-face consultations with volunteer simulated patients (SP) on the university campus in consulting rooms covering typical primary healthcare conditions. One of the advantages of running these clinics is that they allow teachers to control the clinical content of the consultations and provide an opportunity to assess student progress in work skill development. Our department has previously reported on the simGPclinics (Lytton et al., 2019). We found them to be a valuable adjunct for medical students by providing authentic, positive and reliable learning experiences in primary healthcare, complementing those from real-life primary care (Lytton et al., 2019).

When developing curriculum for online learning during the COVID-19 restrictions, the Y5 faculty considered how to continue providing the students with a simulated WIL experience in the absence of face-to-face teaching. The simulated WIL experience (vSimGPclinic) was developed using the pedagogy of Puentedura's SAMR model (substitution, augmentation, modification, and redefinition) (Hamilton et al., 2016; Puentedura, 2014). The SAMR model supports and enables teachers to infuse technology into teaching and learning (Schrock, 2020). Using the SAMR model, educators can effectively scaffold the necessary skills to take students through the stages of technology integration and adoption, helping them become creators of their own knowledge (Jacobs-Israel & Moorefield-Lang,

2013). Out of this thinking was born the concept of the vSimGPclinic. The new vSimGPclinic would Substitute (replace the simGPclinic), Augment (enhance the previous learning), Modify (use videoconferencing) and Redefine the previous face-to-face clinic. These virtual clinics would provide students with simulated WIL experience without the face-to-face contact of a physical clinic (and the inherent risks for COVID-19) via the medium of telehealth (videoconferencing). Telehealth is defined as the use of telecommunication technologies to communicate and facilitate health-related services between two remote parties, typically used in healthcare between provider and patient, or between two health care providers (Sikka et al., 2019). Telehealth has been reported to have high satisfaction with medical students and enrichment of their learning (de Araújo Novaes et al., 2019).

VIRTUAL SIM GP CLINICS

The vSimGPclinic at JCU follows the traditional format of simulation workshops with briefing, simulation activity and debrief, as described by Fanning and Gaba (2007).

TABLE 1: vSimGPclinics for Year 5 students at James Cook University 2020.

Date of clinic (2020)	*vSimGPclinic*	*No. simulated patients (on campus)*	*No. students (online)*	*No. tutors (online)*
May 25	Clinic 1	6	12	6
May 25	Clinic 2	6	11	6
May 25	Clinic 3	6	10	5
June 10	Clinic 4	6	11	6
June 10	Clinic 5	6	12	6
June 10	Clinic 6	6	10	5

Three vSimGPclinics were conducted per day and both students and tutors were online. Each vSimGPclinic ran for approximately two hours and required 5-6 tutors and six simulated patients. The SPs were trained on their role to ensure the clinic ran smoothly. The in-house IT team for College of Medicine provided technical assistance. Only the SPs, IT support and supervising academics were on campus. Observing tutors and students were all off campus.

Briefing

All tutors and students are off campus and attend a briefing (20 minutes) via Zoom videoconferencing led by the supervising academic. Then small groups (1 tutor with 2 students) are moved by the observing IT technician to a consulting room connected by Zoom.

Simulation Activity

There are six physical consulting rooms on campus, each setup with a computer, webcam, an iPad timer and a chair and table for the SP (Figure 1). The SPs are located on campus and move from one consulting room to another on a set appointment schedule, guided by the two supervising academics. Appointments are set for 10 minutes, with approximately four minutes personalised feedback provided by the observing tutor, before the next SP enters the consulting room. Telehealth consultations used Zoom videoconferencing technology, with SPs (on campus) communicating with the Y5 students via the computer screen. The integrated webcam and microphone transmit a high definition image with clear sound to the student (online) and observing tutor (online). Similarly, the SP can see the student and/or tutor on the screen (see Figure 1).

FIGURE 1: vSimGPclinic Telehealth Setup (Individual Room).

Each clinical case is different and carefully designed to be suitable for a telehealth consultation; examples include insomnia, osteoporosis, new diabetes, mood disorder, sexually transmitted infection (STI) and transient ischaemic attack (TIA). Each student (*N*=66) had an opportunity to conduct three consultations, one unassessed consultation, followed by two mini-CEX (mini clinical evaluation exercise) assessed consultations. The mini-CEX was developed by the American Board of Internal Medicine (ABIM) in the 1990's and has been widely used in undergraduate and postgraduate medical education programs as a formative and summative assessment tool (Weston & Smith 2014). An expert observes the actual performance of a student, rating their history taking or physical examination skills and provides feedback to them (Mortaz Hejri et al., 2017). The mini-CEX is an established and validated form of clinical assessment (Hauer, 2000; Norcini et al., 1995) and uses a standardised mini-CEX assessment form with 9-point rating scale organised in three levels as unsatisfactory (1-3), satisfactory (4-6) and high satisfactory (7-9) (Mortaz Hejri et al., 2017).

Debrief and Feedback

Tutors provide four minutes personalised feedback to students for each consultation and fill the mini-CEX assessment form for the two assessed consultations. Upon completion of the six consultations, the small group (tutor and the two students) are moved back to the main group for a generalised debrief

session (40 minutes) over Zoom. Tutors have the opportunity to provide generalised feedback and the supervising academic then discusses the main learning outcomes for each case. Following this, students are invited to participate in the optional GoSoapBox survey to provide their reflections on the virtual clinical practice with their simulated patients.

METHOD

Participants

There were 66 Y5 medical students participating in the vSimGPclinics, 63 of them completed the survey (95.5% response) and two-thirds of them (66.7%) provided further feedback in the additional open-ended question.

The Work Skill Development (WSD) Framework

The WSD is a comprehensive framework to guide student transition from university to workplace and applied to WIL pedagogy since 2009 (Bandaranaike, 2018). It is a two-dimensional assessment tool designed to facilitate reflection on employability criteria and assess the progress from a novice status to a professional. In this study the WSD competencies/facets of employability, as identified in Table 2, are used in the vSimGPclinic to assess critical self-reflection in student performance in telehealth. Column 1 in Table 2 gives the generic WSD competency; column 2 the critical self- reflection required in each competency; column 3 the specific measure of each competency in the GoSoapBox survey. The reflective survey information was deciphered either via a Likert scale or as an open-ended question as given in Table 2.

Data Collection

The vSimGPclinic survey was completed by the students at the end of the virtual clinic, via GoSoapBox. GoSoapBox is a web-based student response system which appeals to undergraduate "digital natives" (Carroll et al., 2018) and used in this study to monitor levels of student satisfaction in the new approach, vSimGPclinic. GoSoapBox can be set up by lecturers and is accessed by students via a login code. GoSoapBox functions can include poll questions, multiple choice questions, open-ended questions or social chat. It was chosen in this study because it facilitates active engagement (Sika-Paotonu et al., 2017) in real-time (Kohnke, 2019) and fosters practical engagement. Students provide feedback on their vSimGPclinic experience to poll questions with Likert Scales ranging from 1 (strongly agree) to 4 (disagree), and with an open-ended question at the end.

The survey was optional. Ethics approval was obtained from the JCU Human Ethics Committee (# H3031).

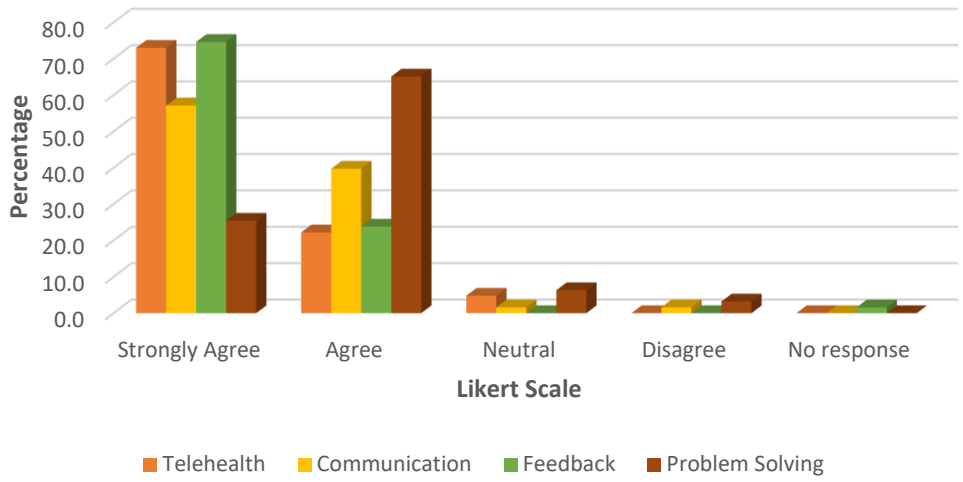
TABLE 2: Critical self-reflection as applied in vSimGPclinics.

Work Skill competencies (WSD, Bandaranaike, 2018)	Critical self-reflection	vSimGPclinic survey measure
Motivation - initiative & willingness to engage & learn	*How do I engage & clarify my task/role?*	Motivation to engage in virtual clinics. Opinions via GoSoapBox [open-ended question]
Technology – ability to select & apply technological & digital skills	*How do I use technology to inquire & generate new knowledge?*	GoSoapBox Opinion on "vSimGPclinic was a useful practical experience of telehealth consultations" [Likert Scale]
Lifelong Learning – efficacy in learning & career development reflection	*How do I critically evaluate my role & reflect on my future directions?*	GoSoapBox Opinion on "vSimGPclinic provided immediate feedback on my performance" [Likert Scale]
Planning – organises and manages oneself & others	*How do I organise information/ data to manage my task/role?*	Planning & Time management Opinions via GoSoapBox [open-ended question]
Problem Solving – critically analyses & synthesises ideas & knowledge	*How can I synthesize information/data sensitively, to create solutions & initiate change?*	GoSoapBox Opinion on "vSimGPclinic provided an authentic clinical consultation experience" [Likert Scale]
Communication – Shows sensitivity in interpersonal communication & conduct	*How can I constructively communicate & collaborate as a professional?*	GoSoapBox Opinion on "vSimGPclinic enabled me to use my communication skills" [Likert Scale]

FINDINGS

The data was collated and analysed using descriptive statistics in Excel. The results from the poll questions using Likert Scaling (Figure 2) are analysed first, followed by the optional opinions on each of the virtual clinics. Descriptive statistics are provided, as well as open-ended responses from participants. The responses are analysed according to each designated WIL competency used in this study (Table 2).

FIGURE 2: Perceived WIL Experiential Learning via vSimGPclinics (N=63).



Motivation

In this study, motivation is assessed as a student's willingness to engage in virtual WIL clinics and provide feedback. This was an open-ended question where students expressed their self-awareness in engaging in a virtual clinic and their honest reflections. Student motivation to engage and learn through the clinics was expressed as, "this [virtual clinic] was really good … an equal substitution for real life OSCE" (Objective Structured Clinical Examination) (GP46, GP30). Some were inspired even further to request a higher frequency in these virtual clinics "would be nice to have these a little more often. Two sessions would be great" (GP42). The enthusiasm to engage in these clinics was also highlighted in their specific comments on the resources provided, "the patient actors were excellent … they had their parts [roles] well memorised … [and] helped it [the clinic] to move smoothly" (GP37). Positive engagement with patients helps build confidence and future engagement. Motivation is the key to student engagement and defined as "a student's willingness, need, desire and compulsion to participate in, and be successful in, the learning process" (Bomia et al., 1997).

Miller et al. (2011) acclaim student engagement includes skills engagement, participation engagement, emotional engagement, and performance engagement, driven by critical reflection (Ebrall et al., 2008) and formative feedback (Nicol & McFarlane-Dick, 2006) leading to preferred lifelong learning outcomes (Kolb, 1984). Motivation therefore is an integral component of WIL to assess a student's engagement in their work. It assesses their persistence despite challenges and obstacles (Klein, 1989), as in the COVID-19 challenges of social distancing and the non-availability of a physical workplace.

Technology

Commenting on the experience of using telehealth consultations via virtual WIL clinics, 73.1% confirmed they strongly agree with the statement that, vSimGPclinic was a useful practical experience. Most of the comments on their experience are positive in that it was "very helpful for learning" (GP14), "a great learning experience" (GP10) and they would like "more of these" (GP3). One drawback in the vSimGPclinic "it was hard to hear them [volunteer patients]" (GP24). Overall, however, the experience of using telehealth technology to access their sample patients remotely was very positive. Telemedicine is an integrated health care network that builds collaborative relationships and of particular value in

rural and remote practice in clinical medicine. A student's ability to find and generate data and knowledge using appropriate skills and technology and, their willingness to adapt to new and developing technology is central to WIL practice. Since the beginning of this century, digital technology has challenged traditional teaching and learning practices (Williams, 2011) and even more so during COVID-19 (Ting et al., 2020). While the experience of telehealth is not new in primary care clinics, it is has become pre-eminent in the current COVID-19 context with restricted access to patients face-to-face for consultations. Telehealth supports the delivery of health care services predominantly to remote, rural and isolated populations. Apart from the COVID-19 prompted change to telehealth training, it is particularly suited to James Cook University's medical school that targets rural and remote medical training.

Telehealth is known to improve physicians' practice via continuing medical education, contacts with peers, and access to a second opinion (Gagnon et al., 2006).

Lifelong Learning

Lifelong learning helps reflect insightfully for continuous learning, encompassing inclusivity in diverse working environments. Students were required to reflect on their virtual learning environment and the connection with their mentors in terms of feedback received. Students responded favourably to the statement 'vSimGPclinic provides immediate feedback on their performance' with three-quarters (74.6%) strongly agreeing and another 23.8% agreeing. This was supported further by GoSoapBox comments that they enjoyed the clinic and would prefer "a bit more time to complete … give notice before time is almost up"(GP8); and reflecting on the intensity and depth of the exercise "variation and difficulty of the cases was great"(GP19), "helpful clinical experience"(GP48) and they also commented positively on the efficacy and value of these clinics to learning outcomes by requesting "please have more of these clinics throughout the year"(GP3). Clinicians must have a repertoire of clinical care systems and lifelong learning becomes crucial to apply knowledge, develop skills, and adjust attitudes (Hilty et al., 2018). Lifelong learning is part of ongoing practice and skill competencies are no longer "optional in medicine" (Callan, 2016; Mohr et al., 2011). Iobst et al. (2010) claim competency-based medical education (CBME) frameworks (similar to the framework used in this study) emphasize outcomes based on skills rather than knowledge acquisition/learning content.

Planning

Fifty percent of the student responses via GoSoapBox related to time management, as in "not enough time to do a presentation like 'fatigue' or 'depression' with a management plan" (GP2), "need extra time for difficult/longer cases"(GP1), "only difficulty I experienced was time"(GP4), need "more time"(GP7, GP34)and a "better system of timing" (GP6, GP8, GP28). This is a clear example where students are blaming the organizers, rather than reflecting on their own time management. This could possibly be the frustration of doing a completely new experience, or as one student puts it [administrators] "could have set clearer expectations going in" (GP26, GP27) to the clinic. In addition, some students treated this assessment as though it was an oral examination. Some were trying to do this exercise like an OSCE where reading time and case information are often provided prior to the assessment station. They did not comprehend that this was a clinical consultation, which required time management as well as clinical skills. Work-ready graduates must have the ability to organize information, data etc. and manage self and be perceptive to managing others. Meeting deadlines and managing time is a major WIL competency (Patrick et al., 2009). Therefore, with reference to planning and management competencies in WIL, this was a learning experience to both students and staff in terms of prior planning and managing the new technology.

Problem Solving

In response to the GoSoapBox question 'does the vSimGPclinic provide an authentic clinical consultation experience?' there was minimal doubt expressed about the authenticity of clinical consultations, with 25.4% strongly agreeing and 65.1% agreeing, 3.2% disagreeing with the statement and a further 6.3% remaining neutral and not wanting to commit themselves. Some of their comments were "need more clearly outlined tasks for each station" (GP22, GP23), "could have set clearer expectations for us going in" (GP47), another commented "excellent as a class activity but not so good as an assessment task" (GP35). This feedback is useful in adjusting the program for the future. While critical reasoning and problem solving is a major competency in clinical placements (Hunter & Arthur, 2016) sensitivity in dealing with patients and creating solutions/diagnosis through analysis and synthesis of ideas ought to be a priority (Heikkinen et al., 2006).

Communication

In response to the GoSoapBox question that the vSimGPclinic "enabled me to use my communication skills", just over half (57.1%) strongly agreed with the statement and another 39.7% agreed. Furthermore, 1.6% recorded a negative response (disagree), with another 1.6% remaining neutral. Yet, overall students are perceived to have engaged and motivated to participate expressed in "clinical exposure given the SCOL (structured clinical online learning) situation, is much better than assignments or presentations" (GP33). The expectations in WIL are, ability to constructively communicate and collaborate within a team environment as a professional and maintain professional identity (Rasalam & Bandaranaike, 2018; Tredre, 2012). The associated WIL competencies in this skill facet include team working, problem solving, communication, information literacy and professionalism (Coll et al., 2009; Freudenberg et al., 2011). Lumma-Sellenthin (2009) perceives students experience moral qualms about applying major aspects of patient-centred interviewing. The author believes instruction in communication skills should aim at filling the students' knowledge gaps and fostering their awareness and expression of emotional perceptions.

DISCUSSION

The generic focus of WIL is on teaching applied and transferable skills that assimilate theory with practical workplace application (McLennan & Keating, 2008). In professional careers like medicine, WIL is a pathway to develop professional skills and professional identity in preparing for their future career and they must use reflection to prepare themselves for the real workplace. Halbert et al. (2020) assert the current COVID situation enforces competency-based teaching and learning (e.g., WSD) and that graduates are trained as work-ready practitioners. Thus, in the context of COVID-19, despite the absence of a physical workplace and the transfer to virtual WIL clinics, the objectives of mainstream WIL are retained in the clinical placement course at James Cook University.

The GoSoapBox survey in delivering ongoing evaluation of the educational experience in telehealth provides feedback (Sika-Paotonu et al., 2017) on the learning experience, including drawbacks. The medical fraternity has embraced telehealth since the onset of COVID-19 and changes to Medicare billing to facilitate reimbursement for patients. Previously telehealth consultations were not reimbursed for consultations between a general practitioner and the patient, unless a specialist was present. This requirement for a specialist to be present has been lifted, thereby facilitating reimbursement for routine consultations via telehealth. It is a robust modality for conducting clinical consultations with evidence for its use (Gagnon et al., 2006) when face-to-face consultations are not available (rural, remote health access and access to specialist services). Telehealth is not a core skill taught in the medical curriculum,

as its use has been limited to special circumstances. During COVID-19 restrictions and physical distancing, telehealth has gained popularity and wide usage, particularly in primary care (Wosik et al., 2020). The use of telehealth in vSimGPclinics has taught Y5 medical students at James Cook University a vital skill for the workplace, whilst immersing them in a clinical experience through WIL. Whilst the consultations were simulated, the volunteer simulated patients (SP) are very experienced (many have been SP's for more than 15 years and receive annual training on role playing skills), and able to provide an authentic experience (Lytton et al., 2019).

There are several advantages to vSimGPclinics. Since it is based on an established teaching platform (vSimGPclinics), it provides WIL experience in telehealth and allows teachers to assess student knowledge, communication skills, and clinical reasoning. Having vSimGPclinics allow specific topics to be covered as consultations, ensuring students at different clinical sites receive equivalent core content. This is not only equitable for students, but also ensures teaching faculty to keep track of student progress in work skills development. In our experience with vSimGPclinics, this allowed three distinct teaching sites (Cairns, Townsville and Mackay clinical schools) to have the same vSimGPclinic experience on the same day. This is particularly useful in a geographically dispersed teaching program and enables equitable access to teaching. This also makes the material covered assessable, hence the use of the mini-CEX assessments. A major advantage of these vSimGPclinics is the potential to be used for primary care and other specialties in medicine where outpatient (ambulatory) clinics are normally conducted face-to-face.

There are several limitations of vSimGPclinics. Many of these limitations listed are what was missing compared to the usual face-to-face simGPclinics that students have as their simulated WIL experience.

- Student does not have access to patient record, pathology/imaging reports, or surgery tests e.g. ECG, BSL, urinalysis. Tutors provided the necessary information to the student during the consultation upon request by the student.
- Student cannot conduct physical examination (students were able to request the physical examination findings from the tutor).
- Telehealth issues (IT setup, internet bandwidth, drop-out risk due to fluctuations in internet connectivity, variable volume, need for IT support, webcam angle, and inability to see whole person). Student may lack experience in conducting telehealth (they were allowed a 'practice' unassessed consultation to start their session).
- Logistically very challenging to setup with multi-site coordination of tutors, student rosters, IT instructions and training of SPs for telehealth. Running three vSimGPclinics per day was tiring for tutors/supervisors/SPs. The IT team was required to design and work with the coordinators several weeks prior to the vSimGPclinics to make the Zoom/telehealth work.

The limitations listed could be considered as areas for improvement in future iterations of the vSimGPclinic. Despite the limitations listed, the feedback from the students on GoSoapBox was largely positive and it was pleasing to note that many students requested more vSimGPclinics. Benefits for students such as guaranteed clinical cases, equity in learning experiences and novel WIL experience may be reasons for this. There were many lessons learnt from running the vSimGPclinics and there is opportunity to research other models for this type of WIL clinic in the future. Future formats of the clinic could involve SPs and students being on campus and tutors being online. This would enable more tutors to be involved (not needing to be on campus) and allow students to have a clinical consultation experience face-to-face. This will be dependent on COVID-19 restrictions in the near future as they evolve. Future virtual WIL clinics could be designed to simulate specialty outpatient

clinics run in hospitals. More research is needed to examine the applicability of this format of WIL to medical and other health professional curricula.

CONCLUSION

Virtual WIL clinics have the potential to overcome the shortage of WIL placements during the period of COVID-19 restrictions. They provide an authentic clinical consultation experience for students in telehealth, an increasingly used model for clinical consultations at present. In an environment where medical students are not being allowed their usual clinical placements due to perceived COVID-19 risks, virtual WIL clinics provide an alternative means for achieving essential learning outcomes from WIL clinical placements. Virtual WIL clinics are a useful adjunct to clinical placements and have the potential to be a regular component of medical curriculum, even in a post-COVID-19 world.

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