FOCUS ON METHODOLOGY

A methodology to facilitate making health professional learners visible as health professional contributors in clinical placements

R. Woodward-Kron, J. Hughson, C. Delany, A. Dodds, M. Lavercombe, S. Lew, & E. Molloy

Abstract

Clinical workplace learning literature tends to focus on the benefits for students and the burdens for health services rather than on mutual benefits of clinical placements. With competition for student placements and changing funding models, there is a need for research designs that can provide evidence of the benefits of clinical placements for health services in addition to the benefits for students' learning. Through a series of studies investigating the bi-directional benefits of health professional students' clinical placements, the authors developed and trialled the Clinical Placement Research Framework, a methodology informed conceptually by communities of practice and related theories. The framework consists of multiple data collection methods to capture multifaceted and contextualised accounts of how students can learn from and contribute to patient care through work as their expertise develops. A multi-year-level approach allows for identifying the trajectory of contributions as students' skills and autonomy increase. Since the case study in 2017 at one health service in Melbourne, Australia, the Clinical Placement Research Framework has been implemented by other researchers as well as the authors in community dietetics, general practice in two university settings and in a national nursing and midwifery study. This paper details the underpinning methodology of the framework and provides an overview of its implementation and outcomes, including the reported impacts for students, health services, patients and their families.

Keywords: methodology; workplace learning; clinical placement; health services; students

Introduction

For health professional educators, one goal of clinical education is to prepare students to be work-ready graduates (Delany & Molloy, 2009; Kilminster & Jolly, 2000) through workplace learning and socialisation (Snell et al., 2020). Clinical placements are arguably the traditional model of workplace learning in health professions education, and for the

The University of Melbourne, Melbourne, VIC, Australia

Correspondence: Robyn Woodward-Kron robynwk@unimelb.edu.au

 ISSN 1442-1100

health services providing clinical placements, their mission is to deliver safe and effective patient care and to meet workforce needs (Rutland et al., 2025). These related but different goals of clinical placement stakeholders are reflected in the different viewpoints in the placement literature. On the one hand, themes in the medical student-focused literature include opportunities for students to transfer theoretical knowledge into practice and to develop core clinical skills (Conn et al., 2012), participation in practice as clinical competence increases (Dornan et al., 2007), the educational utility of clinical placements (Kandiah, 2017), the educational quality of clinical environments (Hyde et al., 2018) and the value of clinical placements for internship readiness (Sen Gupta et al., 2014). In contrast, in literature on the impact of clinical placements on the health service, unsurprisingly, studies have focused on workforce, for example, the cost of the supervisory burden of dietetic clinical placements (Hughes & Desbrow, 2010), capacity building for nursing clinical placements (Barnett et al., 2008) and for rural clinical placements (Barnett et al., 2012) and the impact on stakeholders of a peer-assisted learning model versus a traditional model of clinical placement in physiotherapy (Sevenhuysen et al., 2014).

Another strand of clinical placement literature is advocacy for curriculum models predicated on relationships between stakeholders that can yield mutual benefit, for example, through a symbiotic curriculum (Prideaux et al., 2007) and approaches to supervision (Gingerich et al., 2018). From a medical education standpoint, value-added medical education (Sklar, 2016) is proposed as one way of contributing to the health system and potentially bridging the gap between differing stakeholder goals described above. The term, coined by Lin et al. (2015), refers to authentic experiential workplace learning for students that adds value and capacity to health services. Citing examples of learning activities that can contribute to patient care and maximise students' potential (Gonzalo et al., 2017), the value-added approach acknowledges potentially conflicting educational and patient care goals "by merging these two objectives into a single pursuit" (Lin et al., 2015, p. 151). Benefits for placement providers of other curriculum models have also been reported in the literature. For example, community-based or rural longitudinal integrated placements can provide students with professional and social connectivity with staff, the community and the health service, thus enhancing preparedness for transition to work (Birden et al., 2016; Henschen et al., 2015; Roberts et al., 2017).

The "value-add" approach to clinical placements must be seen in the context of contemporary challenges to securing clinical placements. An Australian and New Zealand multi-author, multi-professional discussion paper (Rutland et al., 2025) contextualises these challenges in the backdrop of health workforce shortages, societal challenges—including climate change—and the COVID-19 pandemic's impact on the health workforce. The authors pose the question "How can hosting health professional student placements add to, rather than subtract from, workforce capacity?" (Rutland et

al., 2025, p. 62). Curriculum models of workplace learning that purport to contribute to workforce capacity must also be supported by evidence, to demonstrate the nature of the impact and benefits to all possible stakeholders of such approaches to ensure uptake. To date, the evidence for the effectiveness of placement models and the outcome measures have not always been well presented (Rudland et al., 2025). Studies have tended to focus on particular domains of knowledge and practice, such as nursing students' learning of bioscience (Fell et al., 2016) and medical, nursing, midwifery, and allied health students' learning of collaborative practice (Walker et al., 2019). There are studies with self-reports of workplace activities that learners find useful to promote their learning (Teunissen et al., 2007), however studies that show how student learning and placement providers can benefit are scarce.

One reason for the paucity of research on the impact of workplace learning, and specifically, the clinical placement model, is the complexity of the clinical environment. Workplace learning involves variation and unpredictability in the range of learning opportunities, resources and support as well as opportunities to practise (Billett, 2001), therefore it is challenging to describe, measure or show causation of learning as well as to measure the quality of training or its cost (Buchanan et al., 2014; Kilminster et al., 2007). Consequently, there is a paucity of literature focusing in detail on the costs, impact and benefits of clinical placements for health services. In the Australian setting, a 2014 rapid review was undertaken for the Independent Hospital Pricing Authority to inform future decisions about teaching, training and research funding for hospitals in the context of the feasibility of moving from a block-funding model to activity-based funding (Bowles et al., 2014). The review found that there was no literature directly investigating the costs and benefits. Further, the strength of the evidence in the 11 peer-reviewed papers that informed the review was not strong since, in most papers, the primary outcome measure of the research design was not focused on costs and benefits. The cost analysis of student placements accounting for learners' year level of study or degree of autonomy related to students' skill level remains elusive. Foci of analyses include the required time of a student's contribution to work to offset the cost of direct supervision (Hughes & Desbrow, 2010) as well as the additional cost of a failing student on clinical placement for multiple stakeholders (Foo et al., 2017).

Health professional educators and researchers have an obligation to students, patients, health services and communities to show how clinical placements facilitate the work readiness of the future health workforce. Equally, it is important to capture and demonstrate ways in which students may play a role in addressing the "pressing challenges" (Lin et al., 2015) of contemporary healthcare by contributing to the mission of health services. The dominant literature on clinical placements focuses on "learner-as-consumer" rather than "learner-as-contributor". To shift this discourse to address the question posed by Rudland et al. (2025) requires a range of approaches, including a wide-angled lens to gain a better understanding of how students, educators, patients, clinicians,

administrative staff and clinical researchers perceive and experience student learners in clinical setting. This paper presents a methodology for capturing the bi-directional benefits of student clinical placements to address this gap. It also reports on the development of the framework and its tools, its implementation—as well as adaptations made in a variety of clinical placement settings—and outcomes.

Methodology and methods

In 2017, the research team carried out the project, Medical Student Clinical Placements as Sites of Learning and Contribution, at an outer metropolitan hospital in Melbourne, Australia (Molloy et al., 2018). The study was funded by the Medical Deans of Australia and New Zealand. It had the interdependent aims of (1) developing a methodology to capture evidence of bi-directional benefits of clinical placements and (2) identifying the effects of clinical placements for learners, patients, healthcare services, the university and the wider community. While the focus of the aims of the original project was a methodology to identify benefits, to gain a broader picture, the authors developed research tools that facilitated investigation of the associated barriers and burdens bi-directionally, as capturing such evidence was deemed important to inform and improve the design of clinical placements for all stakeholders.

Theoretical framing

A community of practice (CoP) theoretical lens (Lave & Wenger, 1991) informed the design and analytical approaches of the Clinical Placement Research Framework. This lens allowed for the conceptualisation of students moving from peripheral to full participation. This model resonates with the Buchanan et al. (2014) report, which highlights clinical placement embeddedness and autonomy of practice as the two distinguishing features of effective placements. Further, the CoP framing sensitises researchers to the social, longitudinal and contextual environments of clinical placements. The CoP framing also encapsulates a bi-directional lens to consider the impact of student clinical placements on clinicians, staff and patients. After consultation with the project advisors, the CoP approach was augmented with the practices of communities (Gherardi, 2009) concept, informed by its application to interprofessional education in hospital settings (Noble et al., 2017). The practices of communities approach shifts the focus from the student participants to the activities that students engage in as part of their workplace-based learning. By focusing on the practices, more emphasis can be placed on the practical knowledge carried out in the performance of activities, the interconnection of those activities and the artefacts, technologies and social relations involved in the performance of those activities.

Study design and data collection tools: Development and implementation

To capture the multifaceted and contextualised accounts of how students learn and contribute to patient care through work as their expertise develops, we developed a

multiple methods approach, which included both quantitative approaches, in the form of a survey and activity profiles that could be distributed across year levels, and the qualitative approaches of interviews and observations. Five data collection methods and associated tools were developed: a student survey, staff and student daily activity profile, focus groups with staff and with students, interviews with staff and observations of students. These data collection approaches are intended to identify learning and contribution activities, including perceptions, activities, frequencies of activities and who is involved in these activities and to what effect.

The student survey

The survey was developed through reviewing the learning activities currently used in medical student clinical placements and consulting with clinical supervisors to identify the range of activities in which students contribute to the work of the hospital. It was designed to elicit student perceptions of the usefulness of their activities in the hospital for their clinical learning, their level of contributions across multiple practice areas and where students position themselves in relation to hospital activities. To gauge students' perceptions of their contributions, students are asked to put a cross on a line with end points of "on the edge of hospital activity" and "in the centre of hospital activity". Students rate the usefulness of 18 activities for their clinical learning on a scale of 0 (not at all useful) to 3 (very useful). The activities are general rather than specific to particular clinical knowledge, and students are explicitly asked to consider the usefulness of the activities for their clinical learning and not just for examination preparation. As responses are sought from students across year levels and different clinical rotations, students are given the option of designating particular activities as "not applicable". Students then rate—on a scale of 0 (nothing) to 3 (a great deal) or "not applicable" —18 areas of activity on how much they contributed to the work of the hospital. The survey includes two free-text questions: three things that students gained from the hospital experience and their three most important contributions to the hospital. The student survey used in the case study is available as Appendix 1.

Daily activity profile

The daily activity profile was informed by the tool developed by Sevenhuysen et al. (2015). An activity profile was developed for students and a similar one for clinical supervisors. The student daily activity profile seeks self-reported information from students on the frequency or time spent on four areas of activity: observation of practice, direct involvement in patient care, student involvement in other workplace activities and student involvement in formal teaching and learning activities. Students are also asked to report their daily caseload. The activity profile for clinical supervisors seeks self-reported information on the estimated frequency or time clinical staff spend on three areas of activity: supervisory demand or support, the number of patients seen with students and supervisor tasks. In addition, clinical staff are invited to respond to the same free-text

questions that are part of the student survey, that is, their perceptions of what students gain from their placement and what students contribute to the health service. The daily activity profiles used in the case study are available as Appendix 2 (students) and Appendix 3 (clinical supervisors).

Student and staff focus group and interview schedules

The qualitative data collection tools include focus groups and interviews. The rationale for inclusion of both approaches was to foster discussion and reflection between group members in the focus groups (Kitzinger, 1995; Stalmeijer et al., 2014), while the in-depth semi-structured interview format was to provide an opportunity for the interviewer to probe participant responses and explore relevant topics. The schedule for both the focus group and interview format reflects the content domains of the survey: value of placement activities for learning, degree of students' clinical independence and value-add for the health service. The focus group and interview schedules are similar for both participant groups, with wording adjustment to reflect the emic or etic perspective of the student experience. The student focus group schedule is provided as Appendix 4, and the clinical supervisor interview schedule as Appendix 5.

Observations

The final qualitative data collection tool is observation of students in practice on clinical placement. A simple, time-stamped observation guide can be used for note-taking purposes in line with Merriam and Tisdell's (2015) guidelines for observational research. Observers should note student year level, placement type and the context of the observation. The observation focus is student activity, therefore researchers should note who the participants are and what the student does as part of the activity. This does not prohibit researcher commentary on what other stakeholders are doing or saying as part of the activity, but at all times, the student learning and contribution is the focus of the observation. Informal interviewing between researcher and learner between tasks is encouraged to solicit the learner's intentions, decision making and experiences related to what has been observed (Bazeley, 2013; Merriam & Tisdell, 2015).

In the case study, one of the decision points for the research team was whether the observational template would be open, that is, recording time and observations of activity/mini-interview responses or structured with properties of workplace learning to help focus the researcher's attention. Our decision to use an open template was informed by experiences of conducting an ethnographic study of medical students' peer learning experiences on clinical placement (Tai et al., 2016). In the Tai et al. (2016) study, two researchers undertook pilot observations in the clinical workplace with an "open template" as well as a "structured template/observational matrix" with pre-determined properties of interactions informed by the literature. The data collected by both researchers was richer using the time-stamped open template. The two researchers also

reported a cognitive burden of trying to slot real-time observations into pre-determined categories.

Methods of analysis

The quantitative data within the survey and activity profile logs are to be analysed using descriptive statistics. For the qualitative data, which are the free-text questions in the student survey, the student and staff focus groups and interviews, and the student observations, the authors recommend Braun and Clarke's (2006) approach to thematic analysis. As part of the methodology, three researchers (JH, RWK, EM) developed a coding framework that was developed through an iterative process. The main thematic areas of the coding framework are what makes placements less or more valuable; student activities, including learning; student supervision; impact of teaching on the hospital or health service; student contributions; enhancing student contributions; and patient perceptions of students and student clinical placements. It is intended that all data are interrogated against this framework. The coding framework for thematic analysis of the qualitative framework can be viewed as Appendix 6. The findings from the different data sets can be synthesised, also referred to as crystallisation (Ellingson, 2009), in order to draw conclusions from multiple types of data representing different stakeholder perspectives. The crystallisation process privileges the development of a partial understanding of a phenomenon, not a definitive truth; that is, it involves sensemaking that is context bound and co-constructed by researchers and participants (Ellingson, 2009).

Implementing the Clinical Practice Research Framework

The data collection tools were initially implemented in a case study at an outer metropolitan hospital (Molloy et al., 2018) in which one of the Melbourne Medical School's clinical schools is located. We adopted a multi-year-level approach to facilitate identifying a trajectory of contributions as students' skills and autonomy increase. The data collection tools were used across the year levels: student participants were asked to identify their clinical year level and their most recent clinical rotation and to contextualise their responses in relation to the most recent rotation. The student survey was implemented in face-to-face mode to facilitate an enhanced response rate. In the student focus groups, participants were asked to complete the student daily activity profile as part of the focus groups. This served to orient students to the topics of discussion.

The responsible hospital's low-risk ethics panel (LREP) reviewed the case study as a quality assurance project, as there were no patient participants in the research. The project (QA Project Number QA2017.58) received approval by the LREP on 31 August 2017.

Recruitment

In the case study, there were recruitment challenges with some year levels, as some students were undertaking clinical rotations or activities at other clinical sites.

Recruitment strategies could, therefore, adopt phased recruitment to accommodate curriculum variations. Recruitment was purposive, in that we sought diversity of student clinical rotations and year level in the focus groups and observations. Due to pressures on clinician time, in the case study, the focus group with clinician supervisors was conducted as part of a hospital grand round by two of the researchers. Interviews were conducted with clinical staff, hospital executive staff and non-clinical staff who were likely to encounter students as part of their workflow, such as staff from Interpreter Services and Health Information Services. The wording on the clinical supervisor interview schedule was modified to accommodate the different roles of participants. Patient participants were not able to be included as interviewees in the case study due to time and resourcing constraints, as any patient participation would have necessitated a hospital low-risk ethics review.

Process considerations

An important methodological decision is the selection of observers. In the case study, the three observers within the research team were experienced qualitative researchers with experience in ethnographic methods and extensive content and research expertise in health settings. The observers' knowledge of the research aims, as well as the CoP theoretical framework helped to sensitise the researchers' attention during the observations. For research teams adopting this research framework in the future, we recommend the recruitment of a researcher with specific experience in observational methods in the health setting.

The Clinical Placement Research Framework

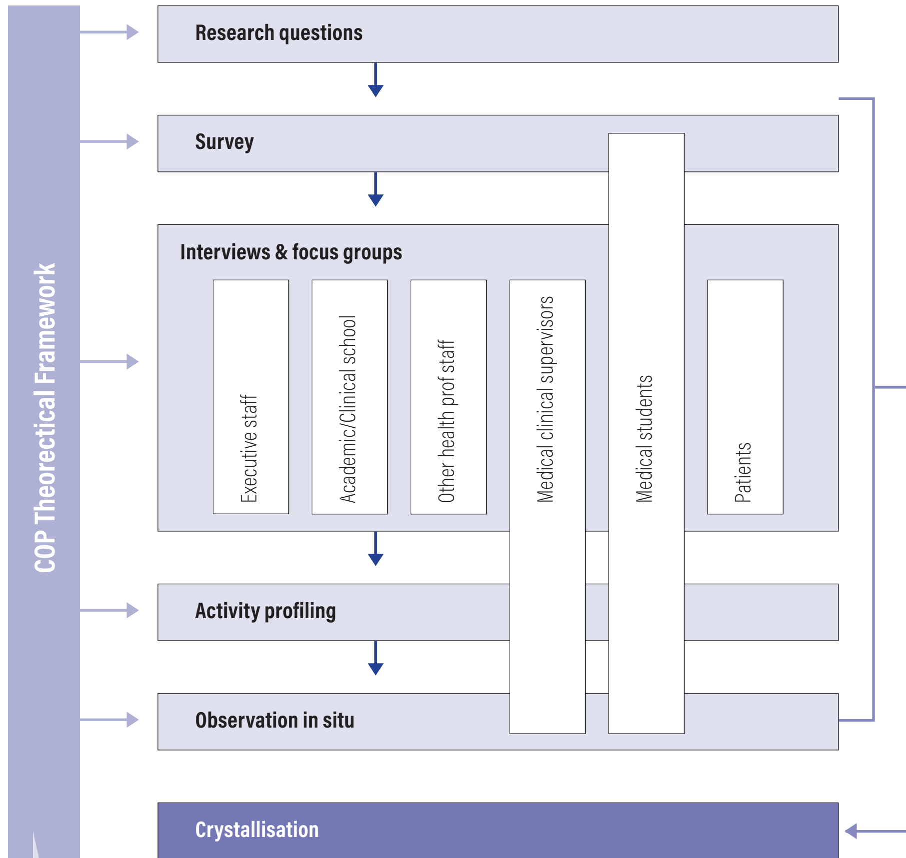
A visual representation of the research elements and processes of the methodology and data collection tools is shown in The Clinical Placement Research Framework (Figure 1). This framework shows how the community of practice (CoP) and practices of communities theories underpin the data collection approaches, tools and analyses. All parts of the framework are oriented to the research aim of capturing the perspectives of multiple stakeholders; these include health service executive staff, academic and clinical staff, other health professional staff, clinical supervisors, students and patient representatives through the five data collection methods of survey, interview and focus groups, activity profiling and direct observation.

The framework includes contextual variables that should be taken into consideration in the research design. One such variable is the characteristics of the curriculum in which the participants are engaged, including whether the program is undergraduate or graduate; the amount of time students spend on clinical placements, the continuity of placements, the extent and timing of placement commencement; the socio-cultural profile of the health service's patient population; the learning culture of the health service; resourcing and workforce capacity; the affordances of the clinical specialties for

clinical placements; and the characteristics of individual stakeholders, including levels of experience and capabilities.

Figure 1

Clinical Placement Research Framework



Key contextual considerations in research design:

- The medical program curriculum
- Health setting, e.g., private or public hospitals, geography (urban or rural hospitals), primary care, socioeconomic characteristics of communities served
- Discipline characteristic, e.g., acute or sub-acute, inpatient or outpatient, surgery, general practice, cardiology, emergency medicine, etc.
- Characteristics of stakeholders, e.g., years and types of experience

Note: The research framework was developed in the context of medical student learning. It is adaptable to other health professional learning contexts, as shown in its application in nursing and midwifery (Moroney et al., 2022).

Outcomes

The Clinical Placement Research Framework can assist health professions researchers and educators to investigate the bi-directional impact of clinical placement, both in terms of the impacts on student learning and the impacts on the health service providing the placement.

The Clinical Practice Research Framework can assist clinical placement leads to demonstrate to stakeholders the clinical activities that students undertake on placement, including contributing to patient care and the nature and extent of these contributions. Such evidence about student clinical activity is necessary to inform any discussion on proposed changes to clinical placement funding models (Bowles et al., 2014). It can also support innovations in health professions curricula, such as the value-add approach emerging in US medical schools (Gonzalo et al., 2017; Lin et al., 2015; Sklar, 2016), by providing a means to gather evidence of the impact of the innovations. The framework's multiple data collection approaches and communities of practice underpinning can provide extensive evidence to stakeholders of the value of clinical placements for facilitating graduate work readiness and of student learning through participating in clinical activities (Teunissen et al., 2007). Further, evidence gleaned from implementing the Clinical Practice Research Framework can inform reporting on clinical placement learning environments to accrediting bodies, such as the Australian Medical Council.

While the results of the second aim of the case study (Molloy et al., 2018)—to identify the impact of clinical placements for learners, patients, healthcare services and the wider community—are not reported in this paper, the Clinical Practice Research Framework yielded rich data to address this aim. It should be noted that the aim was primarily descriptive and interpretivist rather than critical and reflective, however the data collection tools have the potential to reveal gaps, inefficiencies, conflicting values and expectations as well as pedagogically rich activities (Billett et al., 2018), activities that yield learning and that may not have the attention of curriculum designers. The case study findings confirmed the potential of the tools for a critical and reflective lens, which can inform curriculum design. Further, the Clinical Placement Research Framework can be applied to other clinical professions. Since the development of the Framework, it has been implemented in research on general practice placements across two medical schools (Dallas et al., 2022; Hiew, 2019), in dietetics (Kemp et al., 2021) and in a large multi-site, national study in nursing and midwifery (Moroney et al., 2022). In all instances, the data collection tools were modified with the input from expert disciplinary advisors to ensure they reflected the clinical activities, scope and environment of the discipline's clinical placements. The implementation in these disciplines has also entailed adaptation of the coding framework to accommodate differing activities; these include a greater patient education and public health focus in the primary care setting as well as different supervisory models, and differences in the scope of practice for nursing students.

Limitations

The Clinical Placement Research Framework has limitations. While the development of the data collection tools was informed by aligned mapping studies (Bowles et al., 2014; Sevenhuysen et al., 2014; Tai et al., 2016), the survey and activity profile tools may reflect the activities of the medical curricula, in particular the medical curriculum at The University of Melbourne, and not reflect the diversity and scope of activities undertaken by students and supervisors of other medical and health professional programs and other workplace learning models. There may also be socio-cultural and ethical considerations for health services to be considered. To date, the framework has only been implemented in Australian health services. Further research in other national and international settings is needed to inform refinement of the tools. For example, the categories of activities identified in the value-added medical curriculum by a consortium of US medical educators (Gonzalo et al., 2017) can inform the scope of activities in the daily activity profile in future iterations. We interpreted students' impact on patient care through direct observation of clinical activities and through perspectives of students and clinical educators on placement. We did not directly seek the experiences of patients themselves, and we suggest this is an important direction for future research. A further direction is to broaden the bi-directional lens of students' workplace learning to a multifaceted one, for example, to consider mutual benefits where students engage in authentic clinical tasks prior to commencing their formal placements (Gibson et al., 2016). Future studies may also identify other areas to investigate analytically, such as longitudinal impact of placements. Implementation of the Clinical Placement Research Framework in future studies will assist with its refinement as well as its contribution to a body of evidence on the value-add potential of clinical placements.

Conclusion

In an environment of changing student placement funding models, resource-constrained health services and workplace curriculum re-design, it is important to establish evidence for the bi-directional impact of clinical placements on both learners and their hosting health services. The Clinical Practice Research Framework addresses this gap and allows for a multidimensional assessment of the learning opportunities for students—and contributions those students can make—within a particular workplace. The generation of evidence about multifaceted and bi-directional impact and benefits can contribute to shifting the existing binary discourse on clinical placements of burden to the health service provider and of benefits to the student consumer to one that acknowledges the impact and potential of clinical placements for students, for health services, patients and their families.

Acknowledgements

This project was supported with seeding funding awarded in August 2017 from the

Medical Deans of Australia and New Zealand (MDANZ). The authors wish to thank the MDANZ executive advisory panel, Ms Carmel Tebbutt, Professor Michelle Leech and Professor Alison Jones. The authors also wish to thank the project advisory group: Professor Stephen Billett, Professor Terrence Haines, Professor Wendy Hu and Professor Geoff McColl. We also gratefully acknowledge the contributions and involvement of the clinicians, staff, patients and management of the health service involved in the case study reported here.

References

Barnett, T., Cross, M., Jacob, E., Shahwan-Akl, L., Welch, A., Caldwell, A., & Berry, R. (2008). Building capacity for the clinical placement of nursing students. *Collegian*, *15*(2), 55–61. https://www.ncbi.nlm.nih.gov/pubmed/18567476

Barnett, T., Walker, L. E., Jacob, E., Missen, K., Cross, M. D., & Shahwan-Akl, L. (2012). Expanding the clinical placement capacity of rural hospitals in Australia: Displacing Peta to place Paul? *Nurse Education Today*, *32*(5), 485–489. https://doi.org/10.1016/j.nedt.2011.08.013

Bazeley, P. (2013). *Qualitative data analysis*. Sage Publications.

Billett, S. (2001). Learning through work: Workplace affordances and individual engagement. *Journal of Workplace Learning*, *13*, 209–214. https://doi.org/10.1108/EUM0000000005548

Billett, S., Noble, C., & Sweet, L. (2018). Pedagogically-rich activities in hospital work: Handovers, ward rounds and team meetings. In C. Delany & E. Molloy (Eds.), *A practical guide for learning and teaching in a clinical context* (pp. 207–220). Elsevier.

Birden, H., Barker, J., & Wilson, I. (2016). Effectiveness of a rural longitudinal integrated clerkship in preparing medical students for internship. *Medical Teacher*, *38*(9), 946–956. https://doi.org/10.3109/0142159X.2015.1114594

Bowles, K., Haines, T., Molloy, E., Maloney, S., Kent, F., Sevenhuysen, S., & Tai, J. (2014). *The costs and benefits of providing undergraduate student clinical placements for a health service organisation*. https://www.saxinstitute.org.au/wp-content/uploads/The-costs-and-benefits-of-providing-undergraduate-student-clinical-place....pdf

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Buchanan, J., Jenkins, S., & Scott, L. (2014). *Student clinical education in Australia: A University of Sydney scoping study*. The University of Sydney.

Conn, J. J., Lake, F. R., McColl, G. J., Bilszta, J. L., & Woodward-Kron, R. (2012). Clinical teaching and learning: From theory and research to application. *Medical Journal of Australia*, *196*(8). https://doi.org/10.5694/mja10.11473

Dallas, A., Hiew, W., Kay, B., Jackson, H., Reid, K., Presser, J., & Woodward-Kron, R. (2022). Medical students value-adding to general practice. *Australian Journal for General Practitioners*, *51*(3), 152–156. https://www1.racgp.org.au/ajgp/2022/march/medical-students-value-adding-to-general-practice

Delany, C., & Molloy, E. (Eds.). (2009). *Clinical education in the health professions.* Elsevier. https://ghanasor.org/wp-content/uploads/2024/03/2009-Clinical-Education-in-the-Health-Professions-1.pdf

Dornan, T., Boshuizen, H., King, N., & Scherpbier, A. (2007). Experience-based learning: A model linking the processes and outcomes of medical students' workplace learning. *Medical Education*, *41*(1), 84–91. https://doi.org/10.1111/j.1365-2929.2006.02652.x

Ellingson, L. (2009). *Engaging crystallization in qualitatative research: An introduction*. Sage. https://doi.org/10.4135/9781412991476

Fell, P. L., Dobbins, K., & Dee, P. (2016). Bioscience learning in clinical placement: The experiences of pre-registration nursing students. *Journal of Clinical Nursing*, *25*(17–18), 2694–2705. https://doi.org/10.1111/jocn.13097

Foo, J., Rivers, G., Ilic, D., Evans, D. J. R., Walsh, K., Haines, T., Paynter, S., Morgan, P., Lincke, K., Lambrou, H., Nethercote, A., & Maloney, S. (2017). The economic cost of failure in clinical education: A multi-perspective analysis. *Medical Eduction*, *51*(7), 740–754. https://doi.org/10.1111/medu.13266

Gherardi, S. (2009). Community of practice or practices of a community? In S. Armstrong & C. Fukami (Eds.), *The SAGE handbook of management learning, education and development* (pp. 514–530). Sage. https://doi.org/10.4135/9780857021038.n27

Gibson, S,. Golder, J., Cant, R., & Davidson, Z. (2016). An Australian mixed methods pilot study exploring students performing patient risk screening. *Nursing and Health Sciences*, *18*(2), 203–209. https://doi.org/10.1111/nhs.12250

Gingerich, A., Daniels, V., Farrell, L., Olsen, S. R., Kennedy, T., & Hatala, R. (2018). Beyond hands-on and hands-off: Supervisory approaches and entrustment on the inpatient ward. *Medical Education*, *52*(10), 1028–1040. https://doi.org/10.1111/medu.13621

Gonzalo, J. D., Dekhtyar, M., Hawkins, R., & Wolpaw, D. (2017). How can medical students add value? Identifying roles, barriers, and strategies to advance the value of undergraduate medical education to patient care and the health system. *Academic Medicine*, *92*(9), 1294–1301. https://doi.org/10.1097/ACM.0000000000001662

Henschen, B. L., Bierman, J. A., Wayne, D. B., Ryan, E. R., Thomas, J. X., Curry, R. H., & Evans, D. B. (2015). Four-year educational and patient care outcomes of a team-based primary care longitudinal clerkship. *Academic Medicine*, *90*(Suppl. 11), S43–49. https://doi.org/10.1097/ACM.0000000000000897

Hiew, W. (2019). *Medical student clinical placements in general practice as sites of learning and contribution* [MD student monograph]. University of Melbourne.

Hughes, R., & Desbrow, B. (2010). An evaluation of clinical dietetic student placement casemix exposure, service delivery and supervisory burden. *Nutrition and Dietectics*, *67*(4), 287–293. https://doi.org/10.1111/j.1747-0080.2010.01478.x

Hyde, S., Hannigan, A., Dornan, T., & McGrath, D. (2018). Medical school clinical placements: The optimal method for assessing the clinical educational environment from a graduate entry perspective. *BMC Medical Education*, *18*(1), Article 7. https://doi.org/10.1186/s12909-017-1113-y

Kandiah, D. A. (2017). Perception of educational value in clinical rotations by medical students. *Advances in Medical Education and Practice*, *8*, 149–162. https://doi.org/10.2147/AMEP.S129183

Kemp, C., van Herwerden, L., Molloy, E., Kleve, S., Brimblecombe, J., Reidlinger, D., & Palermo, C. (2021). How do students offer value to organisations through work integrated learning? A qualitative study using social exchange theory. *Advances in Health Science Education: Theory and Practice*, *26*(3), 1075–1093. https://doi.org/10.1007/s10459-021-10038-x

Kilminster, S., Cottrell, D., Grant, J., & Jolly, B. (2007). AMEE Guide No. 27: Effective educational and clinical supervision. *Medical Teacher*, *29*(1), 2–19. https://doi.org/10.1080/01421590701210907

Kilminster, S. M., & Jolly, B. C. (2000). Effective supervision in clinical practice settings: A literature review. *Medical Education*, *34*(10), 827–840. https://www.ncbi.nlm.nih.gov/pubmed/11012933

Kitzinger, J. (1995). Qualitative research: Introducing focus groups. *BMJ*, *311*, 299–302. https://doi.org/10.1136/bmj.311.7000.299

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press. https://doi.org/10.1017/CBO9780511815355

Lin, S. Y., Schillinger, E., & Irby, D. M. (2015). Value-added medical education: Engaging future doctors to transform health care delivery today. *Journal of General Internal Medicine*, *30*(2), 150–151. https://doi.org/10.1007/s11606-014-3018-3

Merriam, S., & Tisdell, E. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.

Molloy, E., Lew, S., Woodward-Kron, R., Delany, C., Dodds, A., Lavercombe, M., & Hughson, J. (2018). *Medical student clinical placements as sites of learning and contribution*. University of Melbourne. https://minerva-access.unimelb.edu.au/handle/11343/230706

Moroney, T., Gerdtz, M., Brockenshire, N., Maude, P., Weller-Newton, J., Hatcher, D., Molloy, L., Williamson, M., Woodward-Kron, R., & Molloy, E. (2022). Exploring the contribution of clinical placement to student learning: A sequential mixed methods study. *Nurse Education Today*, *113*, Article 105379. https://doi.org/10.1016/j.nedt.2022.105379

Noble, C., Brazil, V., Teasdale, T., Forbes, M., & Billet, S. (2017). Developing junior doctors' prescribing practices through collaborative practice: Sustaining and transforming the practice of communities. *Journal of Interprofessional Care*, *31*(2), 263–272. https://doi.org/10.1080/13561820.2016.1254164

Prideaux, D., Worley, P., & Bligh, J. (2007). Symbiosis: A new model for clinical education. *The Clinical Teacher*, *4*(4), 209–212. https://doi.org/10.1111/j.1743-498X.2007.00188.x

Roberts, C., Daly, M., Held, F., & Lyle, D. (2017). Social learning in a longitudinal integrated clinical placement. *Advances in Health Science Education: Theory and Practice*, *22*(4), 1011–1029. https://doi.org/10.1007/s10459-016-9740-3

Rutland, J., Ash, J., Barclay, L., Bloomfield, J., Bogssian, F., Byrne, K., Butler, M., Chur-Hansen, A., Clark, S., Edgar, A., Fotheringham, R., Forbes, R., Green, E., Haworth, N., Hays, R., Judd, B., Martin, P., Macdiarmid, R., McNally, C., … Chróinín, N. (2025). Rethinking clinical placements: A response to changing healthcare demands. *Focus on Health Professional Education*, *26*(1), 60–77. https://doi.org/10.11157/fohpe-vol26iss1id782

Sen Gupta, T., Hays, R., Woolley, T., Kelly, G., & Jacobs, H. (2014). Workplace immersion in the final year of an undergraduate medicine course: The views of final year students and recent graduates. *Medical Teacher*, *36*(6), 518–526. https://doi.org/10.3109/0142159X.2014.907878

Sevenhuysen, S., Farlie, M., Keating, J. L., Haines, T., & Molloy, E. (2015). Physiotherapy students and clinical educators perceive several ways in which incorporating peer-assisted learning could improve clinical placements: A qualitative study. *Journal of Physiotherapy*, *61*(2), 87–92. https://doi.org/10.1016/j.jphys.2015.02.015

Sevenhuysen, S., Skinner, E. H., Farlie, M. K., Raitman, L., Nickson, W., Keating, J. L., Maloney, S., Molloy, E., & Haines, T. P. (2014). Educators and students prefer traditional clinical education to a peer-assisted learning model, despite similar student performance outcomes: A randomised trial. *Journal of Physiotherapy*, *60*(4), 209–216. https://doi.org/10.1016/j.jphys.2014.09.004

Sklar, D. (2016). How medical education can add value to the health care delivery system. *Academic Medicine*, *91*, 445–447. https://doi.org/10.1097/ACM.0000000000001103

Snell, R., Fyfe, S., Fyfe, G., Blackwood, D., & Itsiopoulos, C. (2020). Development of professional identity and professional socialisation in allied health students: A scoping review. *Focus on Health Professional Education: A Multi-Professional Journal*, *21*(1), 29–56. https://doi.org/10.11157/fohpe.v21i1.322

Stalmeijer, R. E., McNaughton, N., & Van Mook, W. N. (2014). Using focus groups in medical education research: AMEE Guide No. 91. *Medical Teacher*, *36*(11), 923–939. https://doi.org/10.3109/0142159X.2014.917165

Tai, J., Canny, B., Haines, T., & Molloy, E. (2016). Building evaluative judgment through peer-assisted learning: Opportunities in clinical medical education. *Advances in Health Sciences Education*, *21*, 659–676. https://doi.org/10.1007/s10459-015-9659-0

Teunissen, P. W., Scheele, F., Scherpbier, A. J. J. A., van der Vleuten, C. P. M., Boor, K., van Luijk, S. J., & van Diemen-Steenvoorde, J. A. A. M. (2007). How residents learn: Qualitative evidence for the pivotal role of clinical activities. *Medical Education*, *41*(8), 763–770. https://doi.org/10.1111/j.1365-2923.2007.02778.x

Walker, L. E., Cross, M., & Barnett, T. (2019). Students' experiences and perceptions of interprofessional education during rural placement: A mixed methods study. *Nurse Education Today*, *75*, 28–34. https://doi.org/10.1016/j.nedt.2018.12.012

Appendix 1

Survey Medical Student Clinical Placements as Sites of Learning and Contribution

The University of Melbourne: Melbourne Medical School

Medical Student Clinical Placements as Sites of Learning and Contribution

Please take a few minutes to give us your opinions on your experience of clinical placements. The questions invite frank comments, and all answers will be processed by the researchers. Anonymity is assured, and the survey has no relationship to assessment.

Gender	○ Male	○ Female	○ No Answer
Year level	○ MD2	○ MD3	○ MD4

We are interested in your experience in the hospital as a place where you are learning to be a doctor.

What is your current rotation? ______________________________

Thinking about that rotation, how useful do you find the following activities for your clinical learning (as opposed to useful only for exam preparation)?

Activity	Not at all useful		Very useful		Not applicable
	0	1	2	3	
Lectures	○	○	○	○	○
Small group sessions (e.g., CSC sessions, tutorials)	○	○	○	○	○
Bedside teaching as an observer	○	○	○	○	○
Bedside teaching as a participant	○	○	○	○	○
Going to theatre	○	○	○	○	○
Presenting patient cases (e.g., on ward rounds, mini-CEX, long cases)	○	○	○	○	○
Non-scheduled interactions with consultants	○	○	○	○	○
Clinical interactions with nurses	○	○	○	○	○
Attendance at hospital meetings (e.g., grand rounds, morbidity/ mortality, journal club)	○	○	○	○	○
Procedural skills sessions	○	○	○	○	○
Clinical interactions with allied health professionals	○	○	○	○	○
Non-scheduled interactions with interns (e.g., about tests, drugs, patient issues)	○	○	○	○	○
Observing the GP(s) at your GP practice (PCCB)	○	○	○	○	○
Interviewing and examining patients at your GP practice (PCCB)	○	○	○	○	○
Examining patients	○	○	○	○	○
Interviewing patients	○	○	○	○	○
Attending team meetings	○	○	○	○	○
Non-scheduled interactions with HMOs	○	○	○	○	○
Other activity (please write in)	○	○	○	○	○

At this point in your medical training, where do you see yourself in terms of hospital activity?

Put a cross on the line to represent where you see yourself

On the edge of hospital activity — In the centre of hospital activity

 ISSN 1442-1100

When you are in the hospital, how much do you think you as a student contribute to the work of the hospital (or to your GP practice) in the following areas:

Area of contribution:	Nothing		A great deal		Not applicable
	0	1	2	3	
Talking with patients	○	○	○	○	○
Observing doctors as they work	○	○	○	○	○
Contributing to patient notes	○	○	○	○	○
Interviewing and examining patients at your GP practice	○	○	○	○	○
Talking with patients' families	○	○	○	○	○
Acting as a trainee intern	○	○	○	○	○
Contacting a patient's treating doctor	○	○	○	○	○
Ordering diagnostic tests at the request of a team member	○	○	○	○	○
Interacting with the pharmacy	○	○	○	○	○
Searching the medical literature at the request of a team member	○	○	○	○	○
Participating in family meetings	○	○	○	○	○
Presenting cases in ward rounds or meetings	○	○	○	○	○
Examining patients	○	○	○	○	○
Involvement in community activities	○	○	○	○	○
Participating in QA activities	○	○	○	○	○
Performing patient admissions	○	○	○	○	○
Other activity (please write in)	○	○	○	○	○

What are the three most important things you as a medical student **gain** from the hospital?
1.
2.
3.

What do you see as your most important **contributions** to the work of the hospital?
1.
2.
3.

Please check you have answered all questions

END OF QUESTIONNAIRE

Thank you for your participation!

Appendix 2

Student Daily Clinical Placement Activity Profile

The University of Melbourne: Melbourne Medical School

Medical Student Clinical Placements as Sites of Learning and Contribution

Please take a few minutes to give us details of your activities for ONE day of your current clinical placement. All responses will be processed by the researchers. Anonymity is assured, and your response has no relationship to assessment.

Student Daily Activity Profile

Year level Ward/rotation Date

Student Activity	Frequency OR time spent on activity/day
I observed:	
Doctor's management of patient	
Other practitioner's (nursing or allied health) management of patient	
Peer management of patient	
I was involved in:	
Taking patient history	
Assessment of patient	
Treatment of patient	
Writing in patient history	
Communication with patient's care givers/support team	
I was involved in other activities: *(leave blank if not applicable)*	
Ward rounds	
Handover	
Ordering or interpreting imaging or blood tests (pathology)	
Quality assurance or audit	
Discharge summaries	
Discharge meetings	
Student involved in team/family meetings	
I was involved in learning and teaching activities: *(leave blank if not applicable)*	
Tutorials	
Lectures	
Studying in library	
Feedback on the run (informal)	
Scheduled performance feedback with supervisor	
Workplace-based assessment	
Case load	

 ISSN 1442-1100

How many patients did you work with on this day?	
On average, for this day, how would you rate the percentage of independence of patient contact (0% = I observed clinician doing the work, 100% = I worked with the patient independently)	

Appendix 3

Clinical Supervisor Daily Activity Profile

The University of Melbourne: Melbourne Medical School

Medical Student Clinical Placements as Sites of Learning and Contribution

Please take a few minutes to give us details of your activities for ONE recent day when you worked with students. All responses will be processed by the researchers. Anonymity is assured.

Clinical Supervisor Daily Activity Profile

Specialty

Clinical Supervisor Activity	**Frequency OR time spent on activity/day**
Supervisory demand and support	
Number of medical students supervised on this day	
Number of clinicians/clinical supervisors involved in assisting you with medical student supervision	
Patients seen:	
Number of patients seen (clinician with students)	
Estimated average percentage of student contribution to patients seen (0% = student observation of practice only/no active student contribution to patient care, 100% = student treated the patient independently)	
Estimated minutes spent on supervisor tasks:	
Direct student supervision	
Student-related administration	
Student assessment	
Student feedback	
Direct teaching (tutorials, lectures, etc.)	
Student-related quality tasks	
Patient care/patient attributable activity	
Research	
Overtime worked	
Other activities (please document activities)	

Supervisor years of clinical experience from graduation [please circle]

1–5 6–10 11–15 16–20 21+

Please comment on any extenuating circumstances that may have affected the balance of your workload for this particular day.

What do you see as the three most important things students gain from the hospital?

1.
2.
3.

What do you see as the three most important contributions students make to the hospital?

1.
2.
3.

Appendix 4

Student Focus Group Guide

The University of Melbourne: Melbourne Medical School
Medical Student Clinical Placements as Sites of Learning and Contribution

Focus Group Guide: Medical Students

Introduction: Purpose of project and the process of focus groups. A reminder that the session will be audio-taped and that participants can raise their hands at any point if they have concerns and the audio-taping will be stopped.

1. In your experience, what aspects of clinical placements do you find most valuable for your learning?
2. In the final question on the "Daily Activity Profile" table, we asked you to estimate the percentage of independence in patient contact (0% = student observation of practice only, 100% = student worked independently with patient). Can you explain your response to this question?
3. With increasing experience in clinical placements, are there any ways you have changed your approach to clinical placements? (degree of independence, seeking opportunities, working with peers, etc.)
4. Through your role as a medical student on clinical placement, in what ways do you think you might provide benefits or "value-add" to Western Health?
5. Are there any ways that having students in the workplace might take away from delivery of healthcare?
6. In your experience, how does the type of clinical rotation influence what you can learn and what you can contribute? (for example, ED, Gen Med, Surgery, GP)
7. We know that medical students are involved in activities beyond direct patient care on the wards, in primary care or in the operating theatre. What sort of activities have you been involved in? (if need prompting: advocacy, community education, fundraising, QA/audit, research)

Focus Group Guide: Medical Students *continued*

8. To what extent are you contributing to hospital activity? (0 = on the edge of hospital activity, 100 = in the centre of hospital activity). Hand out scale and ask each participant to put a cross on the scale in the place that best represents their view.

On the edge of hospital activity — In the centre of hospital activity

Can you think of specific types of benefits that your involvement as a student brings to the community and/or the health service?

Are there any other points you would like to raise relating to how medical students contribute to the health service?

Do you have any questions for me about the project?

Thank you very much for your time and participation.

Appendix 5

Clinical Staff Interview Schedule

The University of Melbourne: Melbourne Medical School
Medical Student Clinical Placements as Sites of Learning and Contribution

Interview Guide: Clinical Supervisors

1. Can you describe your current clinical role, your role as clinical supervisor and how many years you have been supervising medical students?
2. In your experience, what aspects of clinical placements do you think students find most valuable for their learning?
3. In a typical day, how many hours do you spend working with medical students?
4. Can you comment on the benefits and burdens/demands of having medical students in the workplace?
5. With the current group of students that you are supervising, to what extent are they contributing to hospital activity? (0 = student observation of your practice only, 100 = student works with patients independently. Hand out scale and ask each participant to put a cross on the scale in the place that best represents their view.

On the edge of hospital activity — In the centre of hospital activity

6. If at all, how do students' contributions change as students gain more experience in clinical placements? (i.e., from start of placement to the end, or across the years?)
7. Have you noticed any shifts in your own approach to clinical supervision of medical students as you gain more experience as a supervisor? (Can you explain your response?)
8. In your experience, how does the type of clinical placement/rotation influence what medical students can learn and what they can contribute? (for example, ED, Gen Med, Surgery, GP)
9. We know that medical students are involved in activities beyond direct patient care on the wards, in primary care or in the operating theatre. What sort of student activities have you observed that might benefit the community and/or the health service (if need prompting: advocacy, community education, fundraising, QA/audit, research)?

Interview Guide: Clinical Supervisors *continued*

10. Are there any other points you would like to raise relating to this topic of how medical students contribute to the healthcare service?
11. Do you have any questions for me about the project?

Thank you very much for your time and participation.

Appendix 6

Qualitative Data Coding Framework

CODES for Thematic Analysis
1. Role
1a. Clinical role
1b. Clinical supervisor junior doctors
1c. Clinical supervisor UoM medical students
1d. Clinical supervisor other medical students
1e. Clinical supervisor of other health professions students
1f. Years of supervisory experience
1g. Other role in hospital
1h. Intern
1i. University
1j. Clinical school staff
2. Value of clinical placements for students' learning
2a. Being part of a clinical service or team
2b. Patient interaction
2c. Involvement in clinical care
2d. Clinical tutorials with clinical content
2e. Hands-on experience (similar to 2c but more explicit)
2f. Observing and learning the skills of diverse clinical staff
2g. Exposure to authentic workplace environment and real people in the community
2h. Opportunities to work independently
2i. Getting feedback from supervisors
2j. Exposure to doctors
2k. Research
2l. Learning about how the health service or hospital functions

3.	**What makes clinical placements less or more valuable for learning**
3a.	Just observing
3b.	Attitude/affect (e.g., bored, engaged, proactive, clinical vs exam focused)
3c.	Degree of didactic content in tutorials
3d.	Viewing the student as part of the team
3e.	Support of staff within the clinical school
3f.	Type of placement (both the clinical area and whether setting is inpatient vs clinics)
3g.	Shadowing an intern
3h.	Team size
3i.	Detailed explanations and training from clinical supervisor
3j.	Opportunities to debrief
3k.	Ability of student to take responsibility of their own learning and attendance
3l.	The doctor or supervisor
3m.	Opportunity to practise (including for assessments)
4.	**What do students do/activities**
4a.	Allocated to a clinical team
4b.	Timetable with core clinical activities
4c.	Clinics and outpatients
4d.	Operating theatre
4e.	Communication activity, e.g., handover, history taking
4f.	Ask questions (e.g., on ward rounds, during consultations)
4g.	Discharge plans or referrals
4h.	Drug charts (includes writing prescriptions)
4i.	Note taking (incl. in patient history)
4j.	Student attitudes and behaviours positive
4k.	Student attitudes and behaviours negative [also related to 3 or 5]
4l.	Group learning and engagement
4m.	Increasing independence and confidence with tasks with experience
4n.	Talking and listening to patients
4o.	Observe
4p.	Hands-on clinical treatment or consultation (e.g., cannulation, venipuncture, GP consult)
4q.	Talking to family members of patients
4r.	Learning to read situations and respond accordingly
4s.	What students can't do
4t.	Non-medical tasks

4u.	Ward round activity (e.g., collect patient file)
4v.	Extra set of eyes and ears
4w.	Test requests
4x.	Non-medical tasks
4u.	Ward round activity (e.g., collect patient file)
4v.	Extra set of eyes and ears
4w.	Test requests
5.	**Barriers to student clinical participation**
5a.	Electronic records when students don't have access (e.g., can't take a history)
5b.	Supervisor invitations (e.g., to join certain activities)
5c.	Student passivity (shares some properties with 3b)
5d.	Length of placement or amount of contact with clinical staff
5e.	Inability to make decisions or disclose information
5f.	Students prioritising other activities or not attending clinics often enough
5g.	Clinician and team attitudes or prejudices
5h.	Team not knowing about students
5i.	Curriculum focus
6.	**How clinicians are teaching**
6a.	Template for unsupervised history taking once observations with clinical supervisor completed
6b.	Student observes expert or more experienced clinician
6c.	Present history to clinical teacher
6d.	Co-examine the patient with student (degree of independence depends on student level of experience)
6e.	Posing questions to students and junior doctors
6f.	Lack of teaching or inclusion of student
6g.	Intern shadowing
6h.	Rotation mini-curricula
6i.	Poor or aggressive clinical teaching
6j.	Student working independently with patient and reporting to supervisor
6k.	Giving feedback
7.	**Time spent with students**
8.	**Impact of clinical teaching on clinical supervisor and hospital**
8a.	Attitudinal or affective aspect (positive or negative) e.g., painful, tedious, career progression
8b.	Adds to workload
8c.	Contributes to clinician reflection or self-regulation (e.g., modelling good practice)
8d.	Makes clinician less efficient or slows down

8e.	Adjusting attitudes, reframing
8f.	Supervisor confidence in student
8g.	Variability in student
8h.	Feedback to medical school and communication between med school and hospital
8i.	Helps me do my job
8j.	Invigoration (student contributes new knowledge, research to team)
8k.	Encourages professional learning, staying up to date
8l.	Engenders spirit of paying it forward
8m.	Develop skills as an educator
9.	**Impact on health service**
9a.	Attitudinal or affective aspect (positive or negative) e.g., painful, tedious
9b.	Maintaining or improving standard of practice
9c.	Efficiency or clinic workload
9d.	Community-based initiatives (health checks, healthy eating, teddy bear hospital, etc.)
9e.	Enhancing patient inclusion in care
9f.	Increasing knowledge through research contribution and other
9g.	Overcrowding or resource burden
9h.	Hard to keep track of students (and people in general)
9i.	Students as a bonus but not someone health service can rely on
9j.	Locally trained, work-ready graduates
9k.	Increases knowledge about patient
9l.	Available to step up in times of need
9m.	Improves hospital environment and reputation
10.	**Student activities or contributions beyond direct patient care**
10a.	Affective aspect in transfer of advocacy skills to clinical context (e.g., arrogance)
10b.	Acting as translator (i.e., speaking Vietnamese and acting as bridge between consultant and patient)
10c.	Humanism, human interaction, seeing patient as a person
10d.	Encourage technological innovation
11.	**How to enhance student contributions and learning**
11a.	Length of placement
11b.	Address student attitudes
11c.	Increase employment opportunities for students within the hospital or pay students
11d.	Introduce targeted initiatives (e.g., health literacy, students as hospital ambassadors, working with interprets elective)
11e.	More structure around student placements
11f.	Clinicians to make explicit what learning goals are

 ISSN 1442-1100

11g.	Rapport development between student and team
11h.	Curriculum changes
12. Scale of contribution	
13. Patient attitudes to students	

Articles published in Focus on Health Professional Education (FoHPE) are available under Creative Commons Attribution Non-Commercial No Derivatives Licence (CC BY-NC-ND 4.0).

On acceptance for publication in FoHPE, the copyright of the manuscript is signed over to ANZAHPE, the publisher of FoHPE.