health

CPN Strategic Projects

Final report

Increasing capacity through student-led clinics

Submitted by:

Peninsula Health

In partnership with:

Monash University

Peninsula GP Network

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Executive summary

There is a shortage of clinical placements for medical, nursing and allied health students in Australia. To expand opportunities for clinical placements, Mornington Peninsula Clinical Placement Network (CPN) elected to investigate the feasibility of a student-led clinic where patient care could be delivered by mixed-discipline student teams working under the clinical supervision. Rather than the traditional clinical education model of single discipline patient care, a student-led clinic offers the potential to deliver interprofessional clinical education, where students across professions work and study together and learn about each other while delivering patient-centred care.

The aim of this project was to develop a model and then pilot a student-led clinic which created additional clinical placement activity for students and targeted unmet demand in the community. A key to the success of previous initiatives has been the ability of student clinics to address unmet health care needs. A gap analysis of Peninsula CPN was therefore undertaken consisting of a waiting list audit, a consumer survey and an operational management survey. Triangulation of the three sources of data revealed that the most appropriate clinic focus for student-led interprofessional care within the Mornington Peninsula CPN would be a post-discharge review of older people after acute hospital admissions due to the large percentage of older people in the area and breadth of health care needs for this group.

A student clinic was established at Frankston Community Rehabilitation Centre in late 2011. The eight-week pilot project involved mixed-discipline teams of fourth-year students screening the physical, functional and social health of older clients after acute hospital admissions. This clinic reviewed twenty-five patients over the pilot period and provided an interprofessional clinical education opportunity for eighteen volunteer students from a mixture of disciplines (dietetics, medicine, nursing, occupational therapy, physiotherapy and social work). At each consultation, a screening tool guided the interview that focused on independence at home since hospital discharge, falls risk, activities of daily living, nutrition and foot care. Unmet health needs were determined and referrals to appropriate services were generated.

Patient, student and educator feedback was excellent, revealing that the student teams worked very well together to provide a useful service to a population with complex health care needs. Student feedback was overwhelmingly positive with the key student learning outcomes; an improved understanding of comprehensive patient care, an understanding of the role of other disciplines and an appreciation of the need for teamwork to provide patient care and support. Patient feedback questionnaires indicated satisfied consumers, with patients reporting an improved understanding of how to manage their health condition and appreciation of the time offered by the student teams to listen to their health care needs.

This pilot study demonstrated the ability of student teams to identify and act on care needs in a vulnerable patient population. The logical combination a patient group in need of time-intensive multifaceted consultations with final-year students with time to offer and in need of interprofessional education was well-received. In summary, the student-led clinic provided an exciting opportunity to reconsider the single discipline model of undergraduate education in primary health care with gains for student learning, organisational practice and most importantly patient care.

Background and context

The substantial growth in student numbers admitted to medicine, nursing and allied health in recent years in Australia has resulted in the need to increase clinical placement opportunities for clinical education (Department of Health, 2007). Traditionally, undergraduate clinical placements in Australia have been discipline-specific, however the health education literature advocates for undergraduate workforce education to include interprofessional education (IPE), where 'two or more professions learn with, from and about each other to improve collaboration and the quality of care' (CAIPE, 2002). Strategies to increase interprofessional education in the workplace have included student clinics, where students across professions work and study together and learn about each other. The most appropriate model or framework for implementation of interprofessional student clinics has not been argued. Furthermore, both student learning outcomes and patient health outcomes associated with such clinics warrant investigation.

Objectives

The objectives of Phase 1 of this project were to review existing student clinic programs, identify unmet needs for expansion in the local community and propose a model for student clinic implementation. The results of Phase 1 have been previously reported (Kent, 2011). The objectives of Phase 2 were to implement and evaluate a pilot program for student-led clinics.

Project activities and methodology

Phase 1

The literature review and gap analysis conducted in Phase 1 of this project indicated that the most appropriate clinic focus for student-led interprofessional care within the Mornington Peninsula CPN was a post-discharge review of older clients after acute hospital admissions, due to the large percentage of older people within the catchment area and breadth of health care needs for this group. The inclusion of final-year students from each of dietetics, nursing, occupational therapy, physiotherapy and social work and fourth-year students from medicine allowed inclusion of all health disciplines from Monash University that would offer traditional clinical placements within Peninsula Health. Monash University was an ideal partner to the Peninsula Health service in trialling this initiative due to its proximity and a strong existing relationship in student education.

An after-hours timeslot for the pilot study was proposed due to limitations in clinic room availability during office hours and arguments that local communities were experiencing gaps in access to after-hours health services (Australian Government, National Health Reform, 2011). Operational management and consumer feedback support for an after-hours clinic was positive when collected via survey and a 4–8pm timeslot was agreed upon (Kent, 2011).

The focus of assessments at the student clinic was a global health screen due to the age of the target population, the potential breadth of health care needs for this group and the potential for a range of factors to impact of future health and independence. In the absence of a validated interprofessional tool for screening the health of older people, the existing Peninsula Health community rehabilitation screening tool was adopted for student use in the clinic. The instrument provided prompts to students to assess factors that may affect health and independence.

Study design

This study followed an action research methodology, whereby the development of each stage was dependant upon the findings of the preceding stage.

Justification of sample size

The sample size was determined by the logistics of the pilot. The pilot ran for two, four-week blocks, two evenings a week. Over that period, eighteen students participated and twenty-five patients attended the clinic. Educators were volunteers: one general medical practice educator and seven nursing and allied health educators from nutrition and dietetics, occupational therapy, physiotherapy, podiatry, social work and speech therapy.

Inclusion and exclusion criteria

Students

Monash University students of medicine, nursing, nutrition and dietetics, physiotherapy, occupational therapy, and social work were considered for inclusion. Fourth-year medical students (4C) and final-year students of all disciplines were eligible to participate. Ultimately, undergraduate students from all disciplines may benefit from an interprofessional student placement but for the pilot, only Monash university students were considered due to ethical approval being a requirement for university involvement and the time required for this process. It was anticipated that undergraduate students from differing disciplines may have had a wide range of clinical education experiences. This may include minimal exposure to either primary care or aged care settings. All students were therefore asked to describe their previous clinical education experiences at the recruitment stage, so that the educating team can be made aware of the experience and learning needs of the students.

Patients

All patients referred to the student clinic were potential participants. The inclusion criteria for referral to the clinic was being over seventy years of age, an inpatient at the acute hospital within the last four weeks with a discharge destination of home and those that had the potential to benefit from review of status from the perspective of more than one discipline. Exclusion criteria were that the patient required specific community rehabilitation follow-up or was referred to a specialised clinic on discharge (e.g., physiotherapy, falls clinic, geriatric clinic).

Educators

A general medical practitioner was recruited for this pilot for clinical governance. One clinical educator from each of nursing, nutrition and dietetics, physiotherapy, occupational therapy, podiatry, social work and speech therapy was also recruited from the public health network.

The clinic: A post-discharge screening program

Purpose

• For student teams to review the physical, functional, emotional and social health of older people who have recently been discharged from Frankston Hospital.

Geographical boundary

• As per Northern Community Rehabilitation Program catchment area (including – Seaford, Frankston, Carrum Downs, Langwarrin, Baxter, Mt Eliza, Mornington, Moorooduc, Hastings, Bittern, Somers).

Inclusion criteria

- Acute admission to Frankston Hospital in last four weeks
- Age >70 years
- · Living at home
- Requiring review of status from the perspective of >1 discipline

Exclusion criteria

- Simultaneous referral to outpatient community rehabilitation
- · Simultaneous referral to specialised clinic falls clinic, geriatric clinic

The clinic: A post-discharge screening program

The Post-Discharge Screening Program was established as a trial for two months, running two evenings a week for eight weeks in October and November, 2011. It operated after-hours, 4–8pm, for eight weeks in succession at the Golf Links Road site. At each clinic, a maximum of nine students worked in mixed-discipline teams of two to four students and were allocated one or two cases depending on presentations. Table 1 and 2 document the timetables for the October and November cohort of student volunteers.

The Post-Discharge Screening Program aspired to review the physical, functional, emotional and social health of older people who had recently been discharged from Frankston Hospital. The student teams completed a semi structured interview consisting of questions regarding mobility, falls, activities of daily living, toileting, cognition, nutrition, social status and foot care. The teams were required to work together to ascertain the need for further follow-up or services. The patient interview was overseen by a medical GP and an educator from one other discipline. The findings of the health screen were discussed with the educator and referrals to appropriate services were made as appropriate. There were three teams of three students working concurrently, supervised by the two qualified clinicians. All documentation was signed off by the medical educator. At the completion of each clinic session, an hour was devoted to the team presentation of the cases, feedback and reflection.

Table 1: Structure of placement for first student cohort

Session	Date	Program	Participants
1	10 October	IPE Introduction, Teamwork planning	All students, medical and physiotherapy educator, no patients
2	12 October	Post-Discharge Screening Program	Nine students, medical and nursing educator
3	17 October	Post-Discharge Screening Program	Nine students, medical and social work educator
4	19 October	Post-Discharge Screening Program	Nine students, medical and dietetics educator
5	24 October	Post-Discharge Screening Program	Nine students, medical and physiotherapy educator
6	26 October	Post-Discharge Screening Program	Nine students, medical and occupational therapy educator
7	31 October	Post-Discharge Screening Program	Nine students, medical and speech therapy educator
8	2 November	Focus Group Evaluation	All students, all clinical educators

Table 2: Structure of placement for second student cohort

Session	Date	Program	Participants
1	7 November	IPE Introduction, Teamwork planning	All students, medical and physiotherapy educator, no patients
2	9 November	Post-Discharge Screening Program	Nine students, medical and social work educator
3	14 November	Post-Discharge Screening Program	Nine students, medical and physiotherapy educator
4	16 November	Post-Discharge Screening Program	Nine students, medical and occupational therapy
5	21 November	Post-Discharge Screening Program	Nine students, medical and podiatry educator
6	23 November	Post-Discharge Screening Program	Nine students, medical and physiotherapy educator
7	28 November	Post-Discharge Screening Program	Nine students, medical and dietetics educator
8	30 November	Focus Group Evaluation	All students, all clinical educators

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Subject recruitment

Students

An email to final-year students from their university called for volunteers of all disciplines to participate in the four-week interprofessional clinic. Where the demand exceeded the available places preference was given to (a) mix of disciplines (b) order of response. Two cohorts of students were recruited, each for eight sessions in succession.

Educators

An expression of interest and explanation of the project was sent to GPs within the Peninsula CPN via email through the Mornington Peninsula GP Network. The student coordinator or lead educator from each discipline was invited to either participate or nominate a suitable interested educator.

Patients

Patients were referred to the student clinic by clinicians of any discipline working on the general medical wards at the acute hospital. Verbal informed consent was obtained by the referrer on the ward and a referral was made via the usual ambulatory care referral process. Once at home, the patient was telephoned and offered an appointment time to attend the clinic, ensuring informed consent for student-led care, under medical supervision. An appointment time and brochure were then sent in the mail to the patient.

Staff education

Staff development in the facilitation of IPE has been reported to be essential for effectiveness (Hammick, Freeth, Koppel, Reeves, & Barr, 2007). An education workshop for educators was therefore held and attended by the staff members that were to teach in the student clinic. This allowed an excellent opportunity for staff to devote time to the professional education needed prior to interprofessional teaching. Activities included the 'Talking Walls' task that the students were to undertake (Parsell, Gibbs, & Bligh, 1998) and role-play of an interprofessional student encounter, based on real patient referrals that had been received for the clinic. This session provided valuable insights into the logistical difficulties that students may encounter in a multiple clinician interview. The goals of the workshop were:

- To have an awareness of interprofessional education, its drivers and barriers;
- · To establish ground rules to facilitate an effective interprofessional learning environment;
- To have an awareness of the framework and structure of the student-led clinic;
- · To have an awareness of the objectives of the pilot;
- To have an awareness of the referral options and processes of referral from the clinic;
- To be able to implement a facilitate a reflective discussion;
- To increase confidence in interprofessional teaching.

Project management

Stakeholder engagement and consultation

A Working Party was established at the commencement of Phase 2 to ensure the pilot study addressed the educational and organisational requirements from all perspectives. This group was made up of representatives from all participating disciplines. The purpose of the Working Party was:

- To establish and support the development of an interprofessional student-led clinic;
- To align the student-led clinic with the academic and logistical needs of all stakeholders;
- To monitor and evaluate the effectiveness of the student-led clinic from the perspective of all stakeholders;
- To contribute to the development of an innovative education and research initiative at Peninsula Health;
- To build stakeholder ownership in the clinic outcome and future potential;
- To encourage collaboration between professions in designing features that met the likely needs and concerns of all students.

The Working Party met on five occasions for ninety-minute meetings. Potential barriers and concerns of all participants were raised and addressed. The following resources were created as a result of these sessions:

- · Definitions of terms;
- A breakdown of the courses from which students may participate, including years of study and clinical education model;
- · A screening tool that would guide patient assessment;
- A resource pack for referral options and processes for the care of older people;
- · A protocol for emergency responses and follow-up in case of medical emergency;
- Student learning objectives for the clinic;
- An educator orientation session;
- A patient information brochure;
- · Student orientation session.

Ethics

Ethical approval was obtained from both Peninsula Health (HREC/11/PH/53) and Monash University (CF11/2585–2011001371). Timely informed consent of students, educators and patients was obtained.

University

In addition to the ethical approval of both Peninsula Health and Monash University, the inclusion of students from six university courses required the approval of each of the respective head of Departments. Furthermore, as this research involved undergraduate medical and nursing students, submission and approval from the MBBS Executive Committee and Nursing Executive Committee was also required and achieved.

Legal

A student-led clinic by definition, allows pre-entry-level students to undertake the bulk of the primary care patient interaction. The literature describes many examples of student-led clinics; however most initiatives have been established overseas (Kent & Keating, 2011). Within the public health setting in Australia, the hospital's medical indemnity insurance covers staff to conduct clinical care. It also covers student care under the supervision of a qualified practitioner. However, Peninsula Health was reluctant to insure a team of mixed-discipline undergraduate students to competently undertake clinical care, due to the perceived risk of error and corresponding risk of litigation. To satisfy legal and medical management, modifications to the original model were made. To reduce the risk of error within the consultations, the clinical task undertaken by the students was restricted to a screening tool.

Attention to the detail of all wording was required to gain legal approval. Upon legal instruction, the word 'clinic' was removed from all participant information, due the assumption that a patient attending a 'clinic' may expect to receive treatment. The 'Post-Discharge Review Clinic' was renamed to the 'Post-Discharge Screening Program' to accommodate these legal requirements.

A patient information brochure was created with legal input to insure that the participants were aware that:

- They would be seen by a student team;
- They would be 'screened', rather than 'assessed':
- If any medical treatment was required they would need to see their preferred general practitioner;
- A letter summarising the students' findings would be sent to their preferred GP. Finally, the legal team were required to write to VMIA (the insuring body) to extend their insurance cover to include the interprofessional evening clinic.

Clinical governance

One of the most significant hurdles to overcome in the establishment of an interprofessional student-led clinic was that of clinical governance. Traditionally, students undertaking clinical education will be supervised by educators from within their own discipline, yet one of the aims of this project was to expose students to the expertise of clinicians from a range of disciplines. In keeping with the models described in student clinics overseas, a medical educator from general practice oversaw all consultations and was required to spend at least five minutes with each patient that attended the program. They were also required to oversee and sign all documentation that resulted from the student screening activity. In the event of a patient being unwell or requiring urgent follow-up care, the medical educator was required to instigate the appropriate response and organise appropriate medical follow-up, as documented in the medical emergency protocol.

There was one other educator working in the program on each clinic day. The additional educator was drawn from a range of other disciplines to provide students with additional practice perspectives. At the completion of each clinic session, there was an hour devoted to team reflection and discussion. The two educators facilitated a discussion of clinical, professional and educational issues to maximise learning and challenge assumptions and professional limitations.

Risk management

An emergency response protocol was developed, with input from a wide range of stakeholders, for the management of both acute medical illness and detection of elder abuse, a problem increasingly common in the target demographic. This protocol required the input and approval of local site managers, the emergency department, the Rapid Assessment and Discharge (RAD) team and the director of medical services.

Outcomes and impacts

Patient outcomes

A total of fifty patients were initially referred and consented during their hospital stay to attend the student clinic after discharge. Five of this group (10%) were readmitted to hospital within four weeks post-discharge and informed consent was not obtained from another eleven (22%) once at home and telephone contact made. After appointment cancellations and non-attendances, twenty-five patients attended the clinic. The mean age of participants was seventy-nine years and their mean duration of acute hospital admission was six days. The primary diagnostic categories represented were varied with gastroenteritis, pneumonia and urinary tract infection presenting as the most common reasons for acute hospital admission. Several patients had more than one primary diagnosis reported in their final discharge summary. Patients were seen at the student clinic on average seventeen days after their discharge from hospital (six to thirty-two days).

The student interviews identified a range of health issues within the patient group that required referral to maximise health and independence. The services identified for follow-up and referred to by the student teams included dietetics, physiotherapy, podiatry, community exercise groups, home help, carer support services, royal district nursing service and general practitioner review.

Patient experience data was obtained from sixteen from the twenty-five participants, representing a 64% response rate. Patients perceptions of the consultations, as measured by the Patient Experience Questionnaire (Steine, Finset, & Laerum, 2001), indicated that this was a very well-perceived patient-centred intervention, that the student teams provided useful information and education about how to manage their condition and that patients subsequently felt more equipped to manage their health condition.

Student outcomes

Eighteen students participated in the student clinic. A breakdown by discipline is reported in Table 3. Attendance at the eight sessions in succession resulted in thirty-two clinical placement hours per student.

Table 3: Student participation by discipline

Discipline	Current year of study	Number of students
Dietetics	4	6
Medicine	4C	3
Nursing	3	2
Physiotherapy	4	4
Occupational therapy	4	1
Social work	4	2
Total		18

Student learning was measured by both Interprofessional Education Perception Scale (Luecht, Madsen, Taugher, & Petterson, 1990) and focus group evaluation. The Interprofessional Education Perception Scale was completed on the first and final day for each student's attendance. The mean baseline score was 88.1 (SD 9.7) and mean final score was 90.6 (SD10.5) from a maximum possible score of 108. The key learning outcomes from the focus group evaluation are summarised on the following page.

Student learning outcomes

Key student learning from interprofessional clinic:

- Need for holistic patient-centred health care
- · Understanding of own role and role of others
- · Teamwork skills
- · Interprofessional communication skills
- Shared leadership.

Educator outcomes

The establishment of the interprofessional clinic united a group of educators from across the public health network with an interest both in clinical education and the philosophical need to provide students with some exposure to the workings of other disciplines. Since the completion of the pilot study, additional interprofessional education initiatives have been undertaken by this group of educators.

Comprehensive reports on the process involved in setting up and evaluating the student-led clinic are being prepared in a series of papers that report the background literature review and outcomes for each of the three participant groups. These are planned for publication in peer reviewed journals.

Limitations and management strategies

Barriers and facilitators overview

The researcher was well-aware that a project that was to involve six disciplines, a university and health care network and acute and primary care would be complex. Each department holds their own unique perspective, management hierarchy and approval processes for new projects or research. Overwhelmingly, this project was deemed 'an excellent idea' once the concept had been explained, however the process of setting up the clinic was difficult.

The barriers to the implementation of IPE have been well-documented (Davidson, Smith, & Dodd, 2008; Gilbert, 2005) and the challenges that became apparent within this project are in keeping with the difficulties that have been reported previously. This interprofessional student clinic is the first formalised IPE program for this public health network. At the core of this problem was a lack of understanding about what IPE was and the positive and negative realisation that IPE and therefore this project, was not the responsibility of, or 'owned' by any particular department, yet input from most departments was required. From a research perspective, operational and clinical governance were prioritised. However, from a human resources perspective clinical educators and students came from differing departments, with differing processes, priorities and lines of management.

Furthermore, the clinic was to run after-hours, with the treating staff to be paid at an overtime pay rate, which also proved to be time consuming to coordinate.

Maintaining a line of communication between all stakeholders was imperative, so an 'interprofessional learning' all-access staff folder within the intranet 'public folders' was created. This folder was continually updated with information and all the resources created through this project, including a definition of terms, staff timetables, learning objectives, PowerPoint presentations and the research protocol.

The ability to work with and through all the processes was made possible by the project officers' long period of employment within the network and some awareness of people, policies and processes particular to each area. For future interprofessional initiatives, it is the researcher's opinion that the establishment of similar work would best sit with staff that were very familiar with both the people and processes of the particular clinical setting to facilitate navigation though the lines of infrastructure within a large public health setting.

Table 4: Summary barriers and facilitators

Barriers	Facilitators	
 Hospital operation in silos – no management structure for IPE Lack of experience in IPE, training needed for staff New project with no precedent in Australia Ethics approval process Cost availability of space legal approval Recruitment of IP education staff University departmental approval, processes quality approval process Education initiative not seen as core business Patient recruitment to a student clinic 	 Experienced external academic oversight and guidance and grant funding allowing dedicated project officer one year 0.8 EFT Widespread agreement with need for students (and staff) to better understand the role of other disciplines Supportive literature Gap in care of elderly patients Working Party facilitated collaborative team approach to hurdles 	

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Evaluation

The student clinic established an additional clinical placement site for eighteen students from across dietetics, medicine, nursing, physiotherapy, occupational therapy and social work. The students typically completed hours of voluntary placement activity over eight evening sessions. A total of twenty-five patients attended the student clinic and a range of referrals were generated by the students to address the health care needs of this patient group.

Key findings

- A student-led clinic provides a feasible alternative site for undergraduate clinical placement.
- Student learning outcomes were the development of a holistic perspective of patient care, knowledge of discipline roles, teamwork skills and interprofessional communication skills.
- Patients reported that the student teams provided a useful service, gaining information and education about how to manage their health condition.
- For the older population, a student clinic should not run after-hours.

Future directions

With the support of the Department of Health, Health Workforce Australia, Peninsula Health, Peninsula GP Network and Peninsula CPN, an eighteen-month extension of this work is now underway. The hours of operation in the 2011 pilot were ill-suited to the patient group so the clinic will operate during regular office hours in the 2012 extension. In addition, the students will be rotated through the clinic as part of their usual clinical placement experience at Peninsula Health. The impact that the student consultations may or may not have on hospital readmission rates will also be documented in the 2012 study.

The financial sustainability of a student clinic remains unresolved and will be a focus of continued attention during the expansion of this work. Although both SACS and MBS models have the potential to be applied, neither yet supports a category clearly supporting to mixed-discipline student primary care. Despite the national call to increase interprofessional education to improve collaborative practice (Health Workforce Australia, 2011), the current funding models lag behind the education and clinical literature presenting a threat for the sustainability of future interprofessional primary care initiatives.

Budget

Neither MBS nor SACS funding was received for the patient consultations that were undertaken for the pilot study. The clinic was therefore dependant on the grant to pay all costs which presents a challenge to the sustainability of the model of practice.

The pilot did not operate the length of its proposed hours due to the reluctance of the older patient group to attend the clinic after 5.30pm. The clinic tended to finish each evening between 7pm and 8pm, with the latest consultation time at 6pm. Staff therefore worked shorter hours and the wages did not reach their predicted cost.

Conclusion

This pilot study demonstrated the ability of student teams to identify and act on care needs in a vulnerable patient population that is well-suited to an interprofessional model of care. The logical combination a patient group in need of time-intensive multifaceted consultations with final year students with time to offer and in need of interprofessional education was well-received.

In summary, the student-led clinic provided an exciting opportunity to reconsider the single discipline model of undergraduate education in primary health care, with potential gains for student learning, organisational practice and most importantly patient care. An expansion of this work is now underway to consolidate the pilot findings, refine processes and to provide an additional and sustainable high-quality education opportunity for students.

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