Feature Article

SUSTAINABLE COMMUNITY DEVELOPMENT: STUDENT NURSES MAKING A DIFFERENCE

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ABSTRACT

The community is the centre of a population's health and wellbeing, providing the context for primary health nursing practice. For nurses to be effective in sustaining and improving a community's health it is imperative they practice within the principles of partnership with the community. The nurse's role in the promotion of health and the provision of acute, chronic and rehabilitative care enables communities to be as well as possible, use resources effectively and plan for future needs by working towards a sustainable model of care. As nurse educators in the School of Nursing, Otago Polytechnic, our role is to ensure that undergraduate nursing students are prepared to practice in the community and to provide a unique opportunity to experience working with a 'community as their client' rather than the traditional mode where the individual is their client. This paper addresses the issue of a lack of equity in access to appropriate health care in some communities, in particular rural areas, and provides a relational model that leads nursing students to practice in partnership with rural communities with the aim of improving and sustaining the health of that community. A solution focused approach by the authors evolved during 2015-2017 with the development of the Community Health Assessment Sustainable Education model and is discussed within this paper. The model is divided into five phases and provides a structure that guides the students through the process of community development. Students are allocated into a group of up to 20 and are aligned with a rural community to create a community profile. Smaller groups then identify key stakeholders and form partnerships with different community members. Students' consultation and ongoing partnership with relevant groups aims to identify health needs, with the purpose to improve the health status of the whole community. Examples from the students' practice are provided to illustrate the model in action.

INTRODUCTION

Community nurses have an opportunity to enhance health and develop the wellness of members of the community and of the community as a whole. Globally, community nurses' practice is underpinned by the principles of Primary Health Care (PHC) and in New Zealand the Primary Health Care Strategy (2001) and the 2016 New Zealand Health Strategy. This paper transcends the "norm" of the content taught nationally to student nurses in the PHC context which is normally in general practice or other nursing contexts where the nurse works with individual clients and or families/whanau. We offer an alternative approach to education which embraces a community assessment problem solving partnership approach to solve local solutions in a systematic way. This process transcends the paradigm of student nurse education promoting a dynamic educational/community development/partnership paradigm with particular emphasis on rurality and with a focus on making a difference.

Problems and solutions

Rural communities are not immune to experiencing health disparities similar to those at both national and international levels (Fernley, et al., 2016, Braveman, 2014; Smith, Humphreys & Wilson, 2008) and are often related

to limited access, affordability, acceptability, appropriateness and the availability of a varied supply and provision of care by an array of health professionals (Ministry of Health, 2016, 2002, 2001). In this paper we focus on the health disparities aligned with rural Otago and South Canterbury regions in which the authors are connected with the education and clinical supervision of third year nursing students in the Bachelor of Nursing (BN) programme. The educational component aligns with the School of Nursing's philosophy that the principles underpinning PHC are fundamental bases of nursing practice. These principles include partnership, community participation and health promotion and are captured as a component of the student nurses' clinical practice experience aligned with their PHC clinical placement.

Ethical approval for students to consult with community organisations including community gatekeepers under lecturer supervision has been granted from the Otago Polytechnic School of Nursing Ethics Committee. Likewise, consultation with local iwi representatives through an aligned process negotiated with the Kaitohutohu Office (Otago Polytechnic) ensures students conduct their research within the principles of the Treaty of Waitangi. This consultation process is built into the project phases, encouraging students to explore potential implications for Māori, as the research progresses.

Geographical location	Identified vulnerable group	Issues identified
Dunstan Basin	Seasonal Workers and tourists	Freedom campers' health issues.
Dunstan Basin	Lesbian, Gay, Bisexual & Transgender youth	Lesbian, Gay, Bisexual and Transgender (LGBT) youth wellbeing in rural communities.
Dunstan Basin	Older people/well elderly (65 years until supported living required)	Social isolation, No public transport, Distance to GP practice & limited access to health care.
Dunstan Basin	Youth	Lack of specialist mental health Services.
Lakes District	Single-parent families Low income individuals People living with disabilities Elderly	Isolation and lack of access to health care services.
Lakes District	People living with chronic conditions	Affordable healthcare for those living with chronic illnesses.
Lakes District	Pregnant women	Lack of maternity services in the area for the growing population's needs.
Lakes District	Temporary migrant workers	Sexual health services for migrant youth.
South Canterbury	Well elderly	Loneliness and lack of support.
South Canterbury	Youth	Low uptake of Human Papilloma Virus vaccination & impact of social media.
South Canterbury	Young families	Access to primary health services for families with young children.
South Canterbury	Migrant dairy farm workers	Health of migrant workers and access to health services.

Table 1. Vulnerable populations' health needs and identified issues. Source: Authors

During 2017, student groups completed four individual rural community clinical projects, in separate rural geographical regions of Otago and South Canterbury. Each student group identified a minimum of three to five health needs, totaling twelve health issues (Table 1) the aim of which was to improve the health status of the identified vulnerable groups.

BACKGROUND

At Otago Polytechnic, Dunedin, we mentor student nurses to partner with a community as their client rather than the traditional model of nursing practice which sees nurses working with an individual or client of a service. Students advocate for their clients' (community) expressed health needs by engaging with community resources and PHC practitioners to promote the health of the population they care for. They manage episodes of illness, disease and life challenges by researching and producing evidence based strategies that are then actioned by the community. The PHC Strategy (2001) was the initiative of the Labour government to promote and maintain heath of the population through District Health Boards (DHBs), Primary Health Organisations (PHOs) and rural communities in the form of Community Trusts to promote accessible, affordable, approachable, available and appropriate health care to the people enrolled in the PHOs. These fundamental principles (Ministry of Health, 2001) are further explored as essential for rural New Zealanders in the report *Implementing the Primary Health Care Strategy in Rural New Zealand* (Ministry of Health, 2002) and more recently the *New Zealand Health Strategy 2016* (Ministry of Health, 2016). Factors such as appropriate access and acknowledging social networks, which provide formal and informal rural care, becomes a focus of rural nursing practice (Hutchinson & East, 2017). Rural nursing practice requires nurses to offer a health service that is innovative and collaborative and essential for the successful delivery of health care. To achieve this success it is therefore imperative student nurses are immersed in community development to enable them to contribute to a solution focused and sustainable health care context through an appropriate educational framework.

Enabling educational processes through theoretical frameworks

The authors endorse the importance of access to clinical practice opportunities where student nurses build trust, respect, integrity and partnership with community members with the intention of improving opportunities for health. It is a requirement of Nursing Council of New Zealand (2007), the professional regularity body, that student nurses build competency through supervised clinical experience, practising in a professional and ethical manner, managing nursing care from an evidence base, initiating appropriate communication whilst embedded within an interdependent, inter-professional model of health care delivery. When an entire community is the client, student nurses require a model and tools in which to achieve change to improve health in a way that is meaningful and sustainable. Theoretical tools and models utilised to improve health must be flexible to explore individual community context and structured so students have a clear framework to follow and be embedded within ethical PHC principles.

Clinical placement experience provides student nurses with an opportunity to learn over a period of three to four weeks. Opportunities for meaningful PHC practice to assess a rural community as a client, and to identify and respond to health needs requires the creation of a platform that prepares students to integrate practical, ethical and research requirements, performed within an isolated professional landscape. Kolb's (1984) theory of experiential learning suggests when students participate in an experience (become immersed in clinical community projects) followed by intentionally thinking about the experience, they will transform the experience into knowledge. Students appreciate the reality of rural isolation and experience by physically visiting rural geographical locations, mapping resources, uncovering inequities and listening to stories of resilience that are unique to each community. Students' are active in their own learning, intentionally strengthening their professional competence through guided reflection and practice, applying theory and scaffolding frameworks to shape and extend their clinical practice and experience.

The platform for groups of students to achieve active learning in a rural setting must incorporate several frameworks. Arnett and Rifken (1995) of the World Health Organisation, produced guidelines for the rapid appraisal of health needs in low income or rural areas, and include eight steps for obtaining information from communities along with resources to assist with the process. The rapid appraisal method rests on three globally appropriate principles: collect only necessary and relevant data, adjust investigations to meet local context and conditions, and involve the community in defining the needs and seeking possible solutions (Arnett & Ritken, 1995). These principals apply to nursing students forming partnerships in the rural context.

Recognising communities often identifies their own health issues. Francis, Chapman, Hoare and Birks (2013) adapted Battye, Mitchell, Cronin, White and Thornber's model of environmental scanning to provide a framework for nurses, working to promote health with communities. Experienced community nurses are led through five phases to assess an environment, partnering with a community organisation to plan, act and evaluate for health promoting change based on the identified issue. Francis et al., (2013) rely on Anderson and McFarlane's (2008) Community-as-Partner framework to reproduce. the Community Assessment Wheel as a framework for the initial nurse-led environmental scan. The core of this framework places the people and their history as the central component of the identified community. Added to this core are eight circling sub-systems (physical environment, education, safety and transport, politics and government, health and social services, communication, economics and recreation). The nurse needs to partner with an identified community to complete the primary data assessment using this framework (Francis et al., 2013) supplemented by statistical demographic and secondary data including the consideration of Māori throughout all components, and the additional services that religious and non-government groups contribute also needs to be captured.

Health promotion itself is a complex concept. Students are introduced to the Ottawa Charter for Health Promotion (World Health Organisation, 1986), a global charter for action, which clarifies that the nurse health promoter has a role alongside the wider community to advocate, mediate and enable clients to increase their control over and improve their health (World Health Organization, 1986). The Charter provides five action strategies that, employed together, are most likely to envisage a health promotion change in a community, nation or the world. These strategies involve shaping legislation and organisations to promote healthy public policy, creating environments that are sustainable and support health, empowering communities to own and control health choices, providing personal and social development and reorienting health services to work together and come from an evidence base (WHO, 1986). This model provides focus in assessing a need and also a framework for potential strategies to alter health status.

Nursing students on clinical placement are required to work within the New Zealand Nursing Council code of ethics, professional guidelines and to consider the Treaty of Waitangi in their practice. In addition, these clinical projects meet the requirements for Otago Polytechnic Category B research, requiring ethical application and consideration of ethical issues, Kaitohutohu consultation, safety of students and supervision by research lecturers. Processes to manage these ethical considerations need to consider the short time frame (four weeks) and the underlying and unknown nature of the partnership process. Community needs are identified by the community and sustainable responses evolve through ongoing consultation, limited by time, the community context, resources and the boundaries of student practice.

The CHASE model

The Community Health Assessment Sustainable Education (CHASE) model provides a consolidated structure that immerses student nurses in community development and engages students to be active in their own learning in partnership with their group peers, community organisations and educational supervisors. This model guides students through ethical, cultural, professional and critical thinking, verbal and written communication and visual presentations. The CHASE model is introduced as a way to plan the project and set realistic goals, and consists of a pre orientation, an orientation and six phases. Two separate lines transgress throughout this model and represent the students (solid green line) and supervising lecturers' (dotted orange line) lines of responsibility as the project progresses (illustrated in Diagram 1).

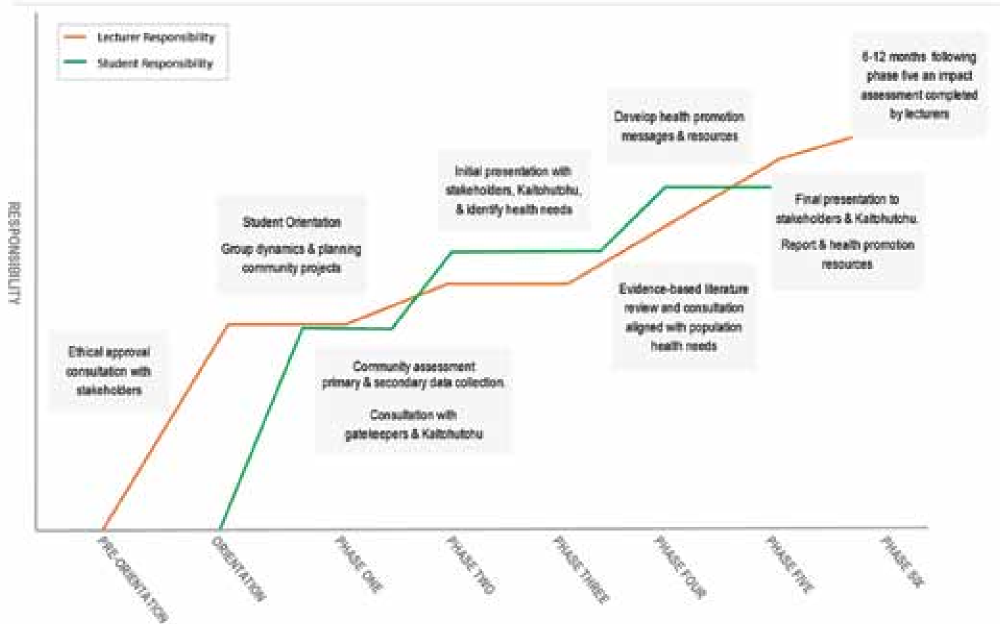

Diagram 1. Community Health Assessment Sustainable Education Model. Source: Authors.

Pre-orientation

The pre-orientation establishes a relationship between the supervising lecturers (represented as a single dotted orange line in Diagram 1) and the stakeholder responsible for the provision of health care from an identified geographical location. Reference is made to the ethical application approval from the Otago Polytechnic, School of Nursing Committee to proceed with the community project/s at the pre-orientation stage and throughout the whole of each project.

Orientation

An orientation to the PHC clinical placement sets the platform in which the CHASE model is built upon. The orientation provides the students (represented as the solid green line) with the opportunity to become acquainted with each other, the supervising lecturers and to the geographical location to which they have been assigned to conduct the community development project. The supervising lecturers intentionally facilitate the students to become autonomous, being clear that they will lead the project in phases two and three. This empowers the group to work together as a team and ensures the workload is evenly shared. To enable this to occur, each student is invited to share one attribute they bring to this clinical placement. Attributes can range from leadership skills, effective communication skills, being able to transport others and having good computer skills. As this exercise unfolds, the students are able to get to know one another and develop the group or team relationship. Getting to know each other is a critical aspect in developing effective teamwork and to understand and agree on a set list of core ground rules to which the group have an opportunity to discuss whether there is a need to add additional group ground rules. The aim of ground rules is to further enhance positive group dynamics and reduce group conflict. Students undertake a risk assessment prior to conducting the fieldwork and complete the appropriate personal contact details that are held by the supervisor.

Prior to the students commencing phase one, the student's meet with the designated community host (in the case of the community projects completed in 2017, this was the Southern District Health Board), to clarify the geographical boundaries and local contact personnel the students could potentially interview.

Phase One

Phase one commences with the planning stage to undertake the community assessment associated with the identified geographical location. The community assessment is guided by Anderson and McFarlane's Community-as-Partner Wheel (Anderson & McFarlane, 2008) which enhances the collecting of both secondary and primary data to identify the core of the community. Secondary data is gathered by accessing web sites such as Statistics New Zealand including the National Census demographic data, the local DHB and Primary Health Organisation (PHO), as well as availability and make up of local services aligned with the location. This information assists the students to generate a list of questions they wish to discuss with local gatekeepers and to acquaint themselves as to who is who in the community, and to set up meeting times either by phone, email or face to face to have their questions answered. The primary data and face-to-face meetings are gathered in the field when the students visit the location, and through negotiated communication channels. At all times the students' practice is guided by the professional attributes and code of conduct expected of all registered nurses and the ethical principles guiding all research.

The Kaitohutohu process, in addition to the research ethics, encourages students to work within the Treaty of Waitangi, the partnership further directs students' data collection to explore Māori within all categories of assessment. As data is gathered the community assessment including the community profile of the location are written up to form the draft report. Patterns or themes that equals potential vulnerable population groups and health needs related to demographic data, are identified and further discussed in phase two.

Phase Two

Phase two requires the students to prepare the draft written report for verbal and visual presentation in consultation with the supervising lecturers. It is in this phase that the students start to take more responsibility for the project (represented as the solid green line) and the supervising lecturers take less of a responsibility (represented as dotted orange). Presentation of analysis on the patterns and themes identified in phase one are provided to Kaitohutohu and host personnel associated with the DHB or community partner and supervising lecturers to discuss a way forward for the students to proceed. This presentation aims to further identify and clarify the health needs related to the vulnerable population groups which directs the students' on-going work. The host DHB personnel or community partner share additional identifiable community members contact details to aid in the progress of the students' consultation with community members. This is the time that the students divide into smaller groups and align their practice to either an identified health need or identified community as the students' progress into phase three of the CHASE model.

Phase Three

Students in phase three work in their smaller groups and progress their individual component of the wider project in consultation with their supervising lecturers. Additional consultation may occur with community members and Kaitohutohu specific to the students focus on an identified health need. The students undertake a detailed literature review referring to national health strategies and policies and relate these to the identified health need for example, limited access to health care. The students continue to build up an in-depth picture of the geographical location, the services available to the community in conjunction with the demographic make-up of the community. Further, students engage with the Ottawa Charter for Health (World Health Organization, 1986) to further guide the evidence-based development and resources in which to improve the health of the identified population/community. Examples of project outcomes were identified in Table 1. It is in phase three the students are leading the project as indicated by the solid green line in Diagram 1.

Phase Four

Students continue to work collaboratively and progress with their written report and to develop evidence-based resources that match the health need of the identified population group and community location in phase four. All resources and reports are perused by the supervising lecturing team to ensure appropriate standards are met, and are in alignment with Otago Polytechnic policies, for example, have appropriate signage and logos and are approved for publication and wider distribution to the community. This way the resources and reports have a continued life once they have been handed to the community, so the community can progress on with the information and sustainable health promoting resources. It is at this stage of the project the lines of responsibility are reversed between the students and supervising lecturers (represented by the solid green line and dotted orange lines crossing over to represent this change in Diagram 1).

Phase Five

Students' return as a united group in phase five and in so doing bring together the individual components of the project as a whole. This requires the students to present the final completed published written report, the health promotion resources and verbal/visual presentation to the host representatives of the DHB and community partners along with individuals that have been invited to the presentation and those who have requested a copy of the written report. Further reporting and the specific ethical questions in alignment with Māori is presented to Kaitohutohu. Phase five leads onto the evaluation of the project in phase six.

Phase Six

Evaluation and the impact that the health promotion resources have made to the identified community population in the geographical location is assessed by the supervising lecturer six-twelve months following the completion of student projects (represented by the single orange dotted line in Diagram 1). This information is in keeping with Otago Polytechnic solution and system focused approach to working in partnership with solving community problems.

DISCUSSION

Underpinning and supporting the CHASE model are the following concepts: sustainability, professionalism, evidence-based practice and ethical approval to guide the students in the community development process. By viewing population aggregates as a focus of health, identifying health needs, and through the innovative development of resources to meet the ongoing and changing population dynamic, students are able to help create and redefine 'health' from an illness focused approach to include one that incorporates sustainability and holism to reduce inequities for vulnerable population groups. Students have reported in course evaluations that the clinical placement and engagement with the project has transformed their way of viewing communities and being able to identify vulnerable populations in a unique way that will enable them to keep vulnerable groups at the forefront of their nursing practice by promoting health rather than illness.

When reviewing the research findings from the student reports (Table 1), it is clear that youth/young people (rangatahi) young families, tourists and migrants along with the elderly and socially isolated are the most vulnerable groups in these rural regions, which has also been noted as a problem by Adler, Mansi, Pandey and Stringer (2017). Further, the students have linked vulnerability to health needs and inequities in health care services.

Inequities and disparities in health care are well known concepts in the health literature. Health equity is the principle underlying a commitment to address the determinants of health, including social and economic determinants which affect disparities in health care and outcomes (Braveman, 2014). Social and economic disadvantages result in avoidable and chronic illness, disabilities and early death (Smith et al., 2008).

The New Zealand Government has attempted to address the inequities for Māori and Pacific people in New Zealand noted in the *New Zealand Health Strategy 2016* (Ministry of Health, 2016) because of the known differences and disparities of health outcomes for these population groups (Bhopal, 2006). However little is known about the health needs and outcomes for other vulnerable groups or population aggregates in New Zealand. Vulnerable groups have not been well described or identified, nor have the disparities in the rural areas been well defined. Vulnerable groups are defined as including:

> …women and girls; children; refugees; internally displaced workers; stateless persons; national minorities; indigenous people; migrant workers; disabled persons; elderly persons; Roma/Gypsy/Sinti, lesbian, gay and transgender people; and HIV-positive people and AIDS victim…
>
> (Adler, et al., 2017, p.5)

A good example of such vulnerable groups is identified in *The Rise of Temporary Migration in New Zealand and its Impact on the Labour Market* (McLeod & Mare, 2013), a report commissioned by the Ministry of Business Innovation and Employment that identified there has been a rise in temporary migrant workers living in New Zealand. Many of these migrants are not identified through Inland Revenue, Ministry of Social Development, Health and Education sectors (McLeod & Mare, 2013). This report claims that many workers particularly temporary migrants for example, on working holidays, are not captured in employment data, because they are transient or tourists without working visas, or family members supported by migrant employees. Further, there are a group of migrant workers who are employed in a 'hidden' or 'shadow' economy and therefore not paying tax (New Zealand Taxation.com, 2011). For these reasons, they are vulnerable and marginalized leading to health issues with limited access to health care. Otago is one of the largest geographic regions in New Zealand, yet it is not known how many migrant workers there are in the Otago and Southland regions, but given the amount of tourists and people on working and education visas in the Lakes District region alone (Price, 2016; Statistics NZ, 2014), indicates that the 2013 census figures do not adequately reflect the true population in the region in 2017. It is not difficult to assume that there are high numbers of migrant workers in the hospitality trade and the agricultural sector (both dairy and seasonal fruit industries) which employs a significant number of migrants. The 2013 census (Statistics NZ, 2013), records that the ethnic breakdown of minority groups living in New Zealand at that time comprised Asians 11.8% and Pacific Islanders 7.4%, and Middle Eastern, Latin American.

There has been discussion in the health sector regarding the unequal access to appropriate health care in rural areas (Fernley et al., 2016; Smith et al., 2008), yet no discussion was found on growing communities such as the regions situated within the Lakes District particularly those with a high number of migrants and their health needs. Given the complexity of global environmental change and the prediction that this will impact on population health, nurses need to be responsive, knowledgeable and prepared to assess a community and to be resourceful and act on the impact of any change. It is imperative that nurses need to 'think globally' and 'act locally' (Rumsey, 2017, p. 385). Community nurses have an opportunity to enhance health and develop the wellness of members of the community and the community as a whole and in so doing, utilisation of the CHASE model can assist them in this endeavor.

CONCLUSION

Transformational change has been embedded in the educational activities leading to students demonstrating their innovative practice to improve community health. Third year nursing students have shown through the use of the CHASE model, that they are proficient at identifying groups in the population that are in more need of resources than others, and have embodied the sense or ability to incorporate a new system, different strategies and ways of thinking to achieve better health outcomes for vulnerable groups. The model has allowed them to partner with rural communities in a meaningful way, addressing health needs that the community has energy to sustain, in a way that is relevant to the community.

Further, impact assessment between the community as partner, the School of Nursing and Otago Polytechnic will at a later date demonstrate the influence the problem solving solutions generated by the students has had on improving the health of the population/s.

Sustainable Practice Solution Box

Problems:

- There is a lack of equity in access to appropriate health care in the community for different population groups that nurses practice with.
- As nurse educators, community frameworks available required adapting to meet New Zealand's community development needs in addition to academic requirements.

Solutions:

Develop a community project model for groups of Nursing Students that meets New Zealand unique community contexts.

Create a platform that prepares students to integrate practical, ethical and research requirements, performed within a professional landscape.

Nursing students use this model with a variety of communities to create a community profile, assess community health needs in partnership and respond to these needs with an evidence based resource or output.

Summary Box

The Community Health Assessment Educational (CHASE) model has evolved over a three year period to accommodate the changing student learning environment and context of community health needs. This relational model immerses nursing students in community development and engages students to be active in their own learning which is in partnership with their group peers, community organisations and educational supervisors. The model guides students through ethical thinking; and provides structure over a finite timespan, dividing a complex project into achievable stages.

The project requires students to critically profile a chosen community and identify health needs. To achieve health care improvement in a way that is sustainable to the population, students utilise the CHASE model which includes assessment frameworks, embedded within a health promotion philosophy. The evidence based outputs of the project are meaningful to the identified population's health, with the potential to make a difference as the community takes ownership and drives the project. Further analysis of the impact of these resources are currently being analysed.

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