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Population health and nurse education – time to step-up

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Introduction

Population health must become a fundamental and explicit component of health care professionals' education. This was the conclusion reached in a report by The Institute of Health Equity (2013). We agree. And picking up this call we believe that it is time for nurse education to take population health seriously and for nurse educators to step up and meaningfully engage with population health. The purpose of this paper is to succinctly yet strongly set out our case.

The reasons why nurse educators must step-up are legion and plain. Internationally, health services face trends that threaten their very sustainability. Populations are ageing – piling pressure on limited health and social care resources (Bloom *et al.* 2015). The prevalence of obesity is growing globally – increasing the number of individuals living with associated comorbidities, such as diabetes and cardiovascular problems. Inequalities remain intractably high – despite decades of research on the social determinants of health. We could go on: homelessness; poverty; refugees fleeing conflict. Each is an issue intimately familiar to the readership of this journal, flitting daily into our lives and filtered through websites, newsprint and near constant news; and, yet, virtually absent from the debate around our healthcare systems and services. Continuing to rely on large acute care settings for health care provision is untenable as a basis for advancing health care to improve health outcomes at a population level; especially for the most marginalised. Yet, the extent to which we in nurse education have really recognised the implications of these issues and truly incorporated population health into our programmes is, thus far, limited.

In this paper, we make the case for *intentionally* integrating population health across all nursing programmes: undergraduate; postgraduate; and in Continuing Professional Development (CPD). Our aim is to stimulate thinking and debate about how this can be enabled. We provide some examples of innovative teaching to illustrate how we, as nurse educators, can meaningfully enable students to link their own practice to the challenges facing wider society. Our intention is not to be prescriptive. Rather, it is to make a potent case for population health to be at the heart of nursing curricula, and to demonstrate that doing so is both practical and feasible. In so doing, we challenge nurse education to consider carefully its responsibilities to the wider communities and societies that they serve.

Nursing as a population health intervention

Although our long-term goal is ambitious, even implementing small curricula changes would, we argue, have potential to have marked impact on population health. If nursing is indeed to meaningfully engage beyond individual and family levels, nurse education must help students connect practice to social determinants, and hence to wider populations, whether housed or not, rich or poor, static or mobile, local or global. Doing this is not straightforward; rote learning that remains, stubbornly, in our programmes will not suffice. Population health needs to become an implicit part of nurses' practises throughout their careers. To borrow a phrase, students need to develop an "epidemiological imagination" (Ashton, 1994), creatively linking their practices to societal issues. Nurse educators need to become passionate advocates of nursing's societal role, to encourage students to view all patient encounters as an opportunity to link to

broader population issues. Practice then provides authenticity for developing interventions that address wider societal issues and improve health. We hence highlight exemplars of approaches that can enthuse and motivate students, and stir passion among educators. We start out by making the case for the nursing profession to have population health at its heart.

Our case that nurses have an unparalleled opportunity for enabling population change is underpinned by the sheer scale of the profession. In the United Kingdom, a third of a million nurses are employed in the state-run National Health Service (National Health Service Confederation, 2015). That figure does not include those employed by private agencies and not for profit organisations. If that is a force to be reckoned with, consider the more than 3 million registered nurses in the United States (US) (American Association of Colleges of Nursing, 2015). That scale is reflected worldwide: in Canada, a quarter of a million (Canadian Nurses Association, 2012); a third of a million in Australia (AHPRA, 2015); and a quarter of a million in South Africa (South African Nursing Council, 2015).

Sheer numbers count, especially if considered through the lens of Rose's Prevention Paradox (Rose, 2001). This paradox suggests that small changes made by many will have a profound impact at the population level. Conversely, interventions that are notable for individuals will often have little to no discernible effects when the macro-scale is considered. Trends outlined in the introduction are issues that affect many and threaten to overwhelm health and social care services. It is these large-scale issues that are a source of social

injustice. But given the scale of the nursing profession, even small changes in engagement with population health could have marked impact.

Individual nursing practices can impact population health in a multitude of ways: making services accessible to those in marginalised situations; enabling clients' access to resources to which they have a right; or to find more suitable housing. Nurses in both community and acute care settings are ideally placed to be at the heart of all those interventions and many others. They can influence, encourage, and facilitate. They can advocate for the significance of these interventions among fellow health care professionals, highlighting benefits even if effects are delayed and not apparent in the short term.

These interventions are beneficial to everyone in society, but particularly so for those whose health is poorest; the most marginalised in society. Yet, it is people in these groups who are often the least likely to utilise the services they so badly need, a theory referred to as the Inverse Care Law (Hart, 1971). Evidence for the existence of an Inverse Care Law has been reported internationally, including in both the United Kingdom (McLean et al, 2006) and the US (Ram, 2011). Reasons for the existence of this injustice are many and varied, and, importantly, unintended. For example, the comorbidities associated with those who are living in a deprived neighbourhood are particularly challenging for health care professionals to address, much more so than when the problem is a single morbidity (Mercer & Watt, 2007). Place matters. Yet, the impact of this deprivation becomes the problem of the health care system. Other factors can conspire perversely, making service engagement more difficult: language used in

patient information, e.g., health literacy; a lack of service provider insight, cultural competence; and so forth. The Inverse Care Law results from a complex web of interrelated factors. Nurses' practice can make a difference, whether to continue or to challenge this care law. To do the latter, requires awareness attuned through experiencing the lives of others.

For nurses to take population health more seriously, it is necessary that the subject becomes a core focus of their education. This is no small undertaking and will not be achieved without efforts from all nurse educators. It requires teaching that can spark the imagination, teaching that encourages creative thinking that frees students to identify themselves with wider issues, issues impacting on their communities, locally, national and internationally. In the next section we will consider the challenges and exciting opportunities to capture the imaginations of our learners and passions of our educators.

Sparking the "Epidemiological Imagination"

The challenge for nurse educators is that the link between practice and population health is not immediately obvious. A student who sees a successful resuscitation will easily link defibrillation to improved survival for one individual. Not so easily apparent are the benefits of actions that have consequences perhaps many years later or the impacts of improved resuscitation practices on populations. Or that manifests in epidemiological analyses, such as declines in morbidity tracked over decades. Or that requires time to develop, such as in fostering mutual relationships with people living in marginalised circumstances. But these are vitally important to people's lives, as well as to the

sustainability of health services. They are also crucial to enable communities to improve their health.

Linking practice to population health requires an understanding of social epidemiology beyond the superficial. Theory, such as the Prevention Paradox or Inverse Care Law, can motivate and encourage practice cognisant of needs not immediately apparent. A point has to be reached where there is intrinsic understanding that actions impinge on events beyond the immediately observable, where there is recognition that individual practice has implications, positive and negative, intended and unintended, at a population level, even to the point of policy change. This is a leap of the imagination, one that draws on reasoning, theory and evidence.

Perhaps relatively few nurses enter the profession with population health in mind. One might question how students could be motivated to understand social epidemiology to an extent where they imaginatively draw on its theories through their careers. But evidence convincingly suggests that people want to become nurses to make a difference (Eley et al, 2012). Teaching and research that taps into the imagination can ignite students' passion for population health by facilitating recognition of the links between their individual practice and the health of communities. To spark this 'epidemiological imagination', we now provide exemplars of teaching and research that illustrate just some ways that these links have been drawn.

Exemplars of innovative education

These exemplars are not prescriptive statements of how population health should be taught, but rather starting points to encourage the creative energies of those who teach. The exemplars are chosen to cover a range of teaching situations, from research, through classroom teaching, to clinical placements. They are not unique, but do provide examples of initiatives that explicitly enable students to connect their work to population health. More specifically, we highlight: (1) research that demonstrates the implications of wider determinants for the health of nurses themselves; (2) a flipped classroom that enables theory to be more effectively integrated with and linked to practice; and (3) placements that enable students to engage directly with the realities of vulnerabilities.

First, research from Scotland has investigated how even nurses, as a population, are not immune to the adverse effects of health's wider determinants. A recent study has estimated the prevalence of overweight and obesity amongst the nursing profession (Kyle et al, 2016). Nurses represent a well-educated workforce, and one that is especially knowledgeable about health and health-related behaviours. Yet these nurses were more likely to be overweight than those working in non-health related occupations. The findings cannot be explained by a lack of knowledge, and suggests that wider structures, perhaps the hierarchical nature of the health service or the effects of shift work, adversely impact health.

This research sheds new light on the wider determinants of health, but also to provide accessible insights to social epidemiology for nurses. The findings contribute to breaking down barriers to understanding theories of population

health, and ask questions that go beyond any sense of 'them' and 'us', 'nurse' and 'service user'. We are all influenced by the wider determinants of health. Marmot *et al.* (1991) have time and again demonstrated so with their studies based on the civil servants of the Whitehall Studies, as Kyle *et al.* (2016) have with nurses.

Second, to point towards how classroom teaching can spark students' imagination to connect individuals' practice to the wider context, we discuss teaching using a 'flipped-classroom'. This specific exemplar resulted from recognition by academics in the US that traditional didactic approaches were not effective in encouraging students to creatively think through the implications of insights from population health for their own practice (Simpson & Richards, 2015). In this flipped-class, a range of activities and resources were made available to students with an expectation that these would be drawn on prior to attending interactive sessions. Online quizzes were completed prior to these seminars as a nudge to ensure effective engagement during class. Fortnightly face-to-face sessions included group work with emphasis on students supporting one-another and educators facilitating discussion. The nudge towards learning prior to discussion, with time and space to reflect prior to seminar attendance, enabled students to think through the 'so what?', and even to ask that question to fellow students, or indeed to clinical placement mentors. After group work was completed, students individually reflected on learning, enhancing the ability to link course material to their families, communities, and future practice.

Outcomes from this teaching have been encouraging and convincing. Students themselves rated the course highly, a mark of engaging teaching. Educators,

including those working with students in other courses, have perceived classroom discussion and other clinical work to be more reflective of population issues and less on the individual outside of their social context.

Third, to demonstrate how clinical placements can connect students to the population level, we highlight a project that has enabled students to experience issues associated with population health first-hand. I-CAN (Interprofessional Care Access Network) is a US based community service-learning project that has provided clinical experiences for students with diverse populations within defined geographic boundaries (Wros et al, 2015). Nursing students were placed in specific geographic communities, partnering with service agencies that support vulnerable people, those who were homeless, living in poverty, or refugees fleeing conflict. The students provided a range of health and health-related services. For example, they checked clients' blood pressures, ascertained their concerns (often social rather than medical), and provided care coordination under the supervision of a clinical nurse educator. Students provided services that engaged them at the population level with people who otherwise would have limited or no access to such services. Students developed insights into how social determinants of health impacted the lives of people with backgrounds very different from their own. The I-CAN project encouraged active partnership with community leaders and students from 3 other professions to address identified population health issues.

These three exemplars illustrate innovative approaches that have successfully engaged students in population health. The Scottish research enabled students to

reflect on their own lives to make accessible *understanding* population health. The flipped classroom involved face-to-face contact only once every two weeks, students having the rest of the time to be independent learners. And the I-CAN community-based project drew on placement opportunities that would otherwise not have existed. Further, these approaches enabled students to reflect and recognise the clear links of population health to their practice.

These are far from the only approaches which help population health become meaningful, or develop skills to facilitate practitioners' confident engagement with populations. Yet, we believe they provide indication of just what might be achieved to enable nursing education to emerge as a leader in promoting the role of practitioners that make a difference beyond the individual.

Conclusion

It is imperative that population health becomes a core component of nurses' roles and education. Now. Problems at a population scale are not going to go away. Nor will social injustices that health care professionals can and do unintentionally contribute to. These issues will be part of our students' practice throughout their careers. Yet there is cause for hope. As we have argued throughout this paper, even small changes to practice can make a notable difference at the population level. Moreover, the social issues central to population health, such as the Inverse Care Law, stir the latent passion of our students.

We call on those in nurse education – undergraduate, postgraduate and CPD – to ensure population health is an explicit component of learning. The exemplars presented here point the way to exciting and realistic pedagogical approaches in which students can be enthused by population health, and come to recognise the importance of the context of people's lives, with its implications for health. That recognition is a starting point that can trigger creative thinking and spark innovative solutions that enable nurses to make meaningful contributions to shaping health and challenging social injustice. It is time for nurse education to take population health seriously – and for nurse educators to step-up.

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