

THE KINESIOLOGY CURRICULUM: USING STUDENT RESPONSES TO EVALUATE COURSE CONTENT

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The academic discipline of kinesiology is relatively new (1960s) and is devoted to the study of human movement. The knowledge base and subject of study continues to develop and now includes inquiry regarding the impact of physical activity on health, society, and quality of life. The purpose of this course content evaluation was to identify kinesiology students' views on the addition of public health content in the curriculum. A lecture addressing the background history of public health, with supported reading, was given to forty students enrolled in an upper level Bachelor of Kinesiology-health course. Students were advised of the inclusion of this topic on the final exam and that their responses would be used to inform future direction of the course material. Students were asked to provide their opinion, through a written response to the question: Does public health belong in the Faculty of Kinesiology? A content analysis was employed and seven themes were identified from students' responses. The themes highlighted professional experience, enhanced leadership, and health promotion and physical activity's contribution to health. In summary, students positively evaluated the inclusion of public health within the kinesiology curriculum and perhaps this is not surprising given the scoring associated with the question. Despite this limitation, students provided insightful responses worthy of reflection that should be considered in a dialogue about the inclusion of public health content in the kinesiology curriculum.

The question of what students learn and how they develop into autonomous and responsible individuals capable of applying their skills in settings outside university environments, has become an area of greater focus in the last decade (Fallis, 2013). According to Freedson et al., (2015), "research and scholarship in kinesiology has undergone a transformation from a field that historically studied sport and exercise performance to one that focuses on how movement impacts human health and well-being" (p. 355). An area that has surfaced as a new direction with roots back to Hippocrates is the integration of kinesiology and public health. As this direction evolves, it is important to gain a further understanding of how current degree programs integrating kinesiology with public health are structured and how these structural changes may drive innovations in research and teaching (Freedson et al., 2015).

The Faculty of Kinesiology at the University of Calgary (Alberta) offers a senior kinesiology course that focuses on public health and physiology. The course is a requirement for some majors but it can also be taken as an option. The course is divided into three sections and each section is composed of seven lectures. The first section is entirely about public health, health promotion and basic epidemiology, the second is about risk factors associated with cardiovascular disease, and the third focuses on chronic disease prevention. The course initially went through ethical approval because of the laboratory component and the personal information

that students include in their Personal Health Report assignment.

Currently there are very few courses in the Faculty that include content related to public health; but this course (XXX) does. We are interested in determining whether students see value in the inclusion of information from a discipline that is rarely discussed elsewhere in the Faculty. There are other Canadian institutions close by (Personal Communication, Dean, Faculty of Health Sciences, U of Lethbridge, Nov. 2016) and some in the United States that offer programs that allow students to choose between courses that focus on the disciplines of kinesiology or public health, or have a combination of both (Freedson, et al., 2015). As more students, faculty and institutions look for ways of integrating public health education into undergraduate programs, it is important to consider what students in health disciplines, like kinesiology, think about this integration (Addy, Gerber, Dyjack & Evashwick, 2015). To ensure quality of delivery and to provide feedback to those instructing the course, an evaluation was undertaken to identify kinesiology students' perspectives on including public health content in the curriculum.

METHODS

Forty students were enrolled in the Winter 2015 session of the course (KNES 433) and 73% of them were in their fourth or fifth year of the degree program. The males (n=16) had a mean age of 24.6 years and the females (n=24) had a mean age of 21.4 years. The final exam for the course consisted of 55 multiple choice questions based on content from the last section of the course and one short-answer question, worth 5 marks. The short-answer question was based on a lecture about public health, for which, students were given supplementary reading material. Students were informed that a written question related to the lecture would be on the final exam. The short-answer question was "Does public health belong in the Faculty of Kinesiology?" and students were given instruction on how to include definitions, references, and/or stories from personal experiences in their responses. The students were asked to include their opinions and insights as part of their responses and were told that the scoring was based on the quality and thoroughness of the writing, not the stance taken in their response. All questions were marked by the marking assistant and reviewed by the course instructor. The class was also told prior to the exam that their responses could be anonymously shared with people such as faculty members or educators. Students could opt out of this by speaking to the instructor.

The goal was to identify students' perspectives, therefore a basic descriptive approach was adopted to analyze their responses (Sandelowski & Barroso, 2003). A thematic analysis of the students' responses was completed using NVivo 11 (NVivo qualitative data analysis software; QSR International Pty Ltd. Version 11, 2015) followed by the identification of themes among the responses (Vaismoradi, Turunen & Bondas, 2013). Each response was categorized into related themes and most responses belonged in at least two of the seven themes, described in the results section.

RESULTS

All students completed the multiple choice and answered the written question. None of the students chose to leave the written answer blank, perhaps because of the 5 marks associated with it. Also, no students informed the instructor that they did not want their answers shared with others.

The scores ranged between 4.5 and 5.0 for the short-answer and, as stated previously, the scores were based on the quality and thoroughness of the writing. More specifically, marks were

given for including opening and closing statements, taking a stance (i.e. saying 'yes' or 'no'), and using examples, definitions, references or experiences in their responses.

Based on the thematic analysis, seven themes emerged from the responses: 1) Professional Experience; 2) Curricular Reform; 3) Epidemiology; 4) Health Promotion; 5) Physical Activity; 6) It's Everybody's Business; and 7) Leadership. Students' insights and the relevancy of their responses are described in the discussion section.

DISCUSSION

The following subsections include related concepts to the themes and commentary that has been paraphrased from the students' responses. The concepts discussed in the responses indicate that students' perceptions regarding the relevance of public health education for kinesiologists revolve primarily around their perception of the importance of having certain knowledge and skills as they graduate from their degree programs. The responses also focus on future careers in the field of health and wellness that students aspire to be employed in.

Professional Experience

Many kinesiology graduates pursue various professions in the field of health and wellness so it is important for them to have knowledge and skills that will help them in their careers. One student suggested that because public health has applications in many professions from the health and wellness field, students who learn about public health are likely to be both educated citizens and educated professionals. This means that knowledge of public health will allow kinesiology graduates to be well informed about various other aspects of health, not just the ones that kinesiology as a discipline traditionally tends to focus on.

Curricular Reform

This theme is about evidence-based medicine and knowledge translation. Evidence-based medicine is the term used when referring to the process of using the best evidence available when making decisions about the care of individual patients (Masic, Miokovic, & Muhamedagic, 2008). Similar to the way in which clinicians use evidence to inform decisions related to health and healthcare, instructors in kinesiology use evidence from research to educate students about health and wellness outcomes and trends. The students in turn are expected to be able to translate that knowledge for the patients or clients they will work with. The problem here is that students are not necessarily taught how to do that, especially in the discipline of kinesiology. A student explained how it is imperative for kinesiology graduates to be able to speak confidently and enthusiastically about issues in public health in order to make a difference on a large scale and to influence changes in behaviour. That is in fact a large part of what kinesiologists and other health professionals try to do. To make a difference or influence change on a large scale, as public health initiatives try to, the people aiming to make these changes need to be very knowledgeable, but they also need to be able to communicate well, otherwise people will not listen to them. As the student mentioned, the curriculum should include a focus on knowledge translation so as to enable students to be effective communicators.

Until recently the discipline of communication operated at the periphery of public health (Bernhardt, 2004). Communication was "perceived as more skill than science" and "was equated only with dissemination of findings by many public health professionals" according to Bernhardt

(2004). In the *Healthy People 2010 report*, health communication is defined as “the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues (US Department of Health and Human Services, 2010). This student’s insight seems to parallel what public health leaders realize, which is, promoting health and protecting the public requires both sound science and effective public health communication skills.

Epidemiology

Some would say that epidemiology is the foundation of public health (Detel, 2015). It is a discipline of its own that is concerned with understanding how and why diseases affect the population as whole. Although it is a separate discipline, and students can take courses in epidemiology outside of kinesiology, certain aspects of epidemiology can provide crucial knowledge that would be beneficial within a kinesiology context. For example, although both epidemiologists and kinesiologists may be knowledgeable about the same diseases such as obesity and type 2 diabetes, they would be discussed in very different contexts. Epidemiologists would be concerned with knowing how those diseases affect the population as a whole, whereas kinesiologists would focus on how they affect an individual. Another distinction is that kinesiology was originally rooted in the biomedical model, which has dominated medical practice (Havelka, Lucanin, Lucanin, 2009). The social, psychological, or environmental factors related to a disease were less of a focus when compared to the physiology of a disease. It is important for students to be aware that there is value in taking a different approach or perspective when learning, and epidemiology can offer students from a traditional kinesiology program a different but important perspective regarding the population metrics associated with physical activity, health, and disease.

Health Promotion

According to the World Health Organization, public health is “the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society” (Public Health Services, n.d.). Health promotion is a big part of public health, and it is a big part of kinesiology too. Kinesiology graduates, especially those who become healthcare professionals or educators (including physical education teachers), are in positions to be promoters of health. This idea was communicated by a student who pointed out that, if kinesiology students are empowered by being given knowledge about public health, they can disseminate this knowledge to patients, clients, students, and the media, and in doing so empower the public. This knowledge will allow people to take control of their lives and create positive changes in their behaviour, influencing their health. Health promotion is about empowering people so that they can make changes that will positively impact their health. Having some information about or experience with public health would help kinesiology graduates with translating the knowledge that would empower people because, as mentioned before, a big part of public health is knowledge translation and dissemination.

Physical Activity

In kinesiology, health promotion typically refers to the promotion of physical activity for both preventative and rehabilitative purposes; physical activity is used to promote health. In

relation to this idea, one student discussed how public health is a team effort, and that kinesiologists use exercise as medicine to help prolong life and improve and prevent disease as a part of public health initiatives. Kinesiologists should be a part of public health teams because they can use exercise to do the things that public health aims to do; prevent disease, prolong life, and promote health. In this way, kinesiology and other disciplines become important to the focus of public health (Gouda and Powles, 2014), so it would make sense for kinesiology students to learn about public health. Kinesiology graduates can be an important part of public health initiatives, but to do that effectively, they need knowledge in that area.

It's Everybody's Business

Many students had the opinion that everyone should learn about public health, not just kinesiology students, because public health is everybody's business (in class, lecture 3 students saw a video [<https://vimeo.com/183991792>] that referred to public health as everyone's business). For example, one student's answer suggested that one of the best ways to increase an individual's own health is to make use of primary prevention practices such as getting vaccines, which relies on a large percentage of the population being vaccinated to work effectively. In this way, an individual's health is linked to the public's health. This means that one's own health influences and is influenced by the public's health, so an individual contributes to the whole. The healthier an individual is, the healthier the population is, so it makes sense to be educating everyone about how to be healthier. This is not entirely practical of course, but, kinesiology students are seen as health experts in a way, so if only certain students can learn about public health, the opportunity should be given to kinesiology students.

Leadership

Whatever career paths kinesiology graduates may choose, there is a sense that people look up to them as leaders or experts who can customize a client's wellness. A student explained that it seems as though their peer students and even the public look to them [kinesiology students] to improve their overall health and wellbeing. This student believed that, in a way, kinesiology students would be failing these peers by not providing them with the best help, particularly if they were lacking knowledge of public health practices. Some students felt that without information about public health, they would not be as well informed as they could be when making decisions or answering questions that people may ask them. Again, their view was that if they cannot do that, they are letting people down. Moreover, if they are not making fully informed decisions, they may not be making the best decisions, and as a result they may no longer be looked up to as leaders. With an education that includes aspects related to the discipline of public health, they will however, have an advantage over other graduates of traditional kinesiology programs who might be lacking that knowledge.

CONCLUSION

Reading students' responses that discuss the content of their core courses and what should be included provides the impetus for future conversation with students. This conversation matters as students can influence the curriculum by understanding its relevance to their needs and interests. It is their future, and education must adapt and change based on the skills and knowledge required in the workplace. Therefore, it is not surprising that students responded to

the question with a wide range of reasons to support their perspectives for including public health in kinesiology.

It would seem that including public health content in the curriculum is important with regards to the knowledge and skill sets that students believe they need upon entering the workplace within a rapidly changing world. Many other institutions in North America have attempted to provide students with these leadership skills by offering integrated programs of study (Freedson et al., 2015). These programs have courses that allow students to learn, apply knowledge, and gain practical skills so they are better prepared for public health, health promotion and health education opportunities. Although the Faculty of Kinesiology has one course with lectures devoted to these disciplines, it is clear from the student responses that, from their perspective, it may not be enough to prepare them for a successful future.

REFERENCES

- Addy, C. L., Gerber, D. S., Dyjack, D. T., & Evashwick, C. J. (2015). Undergraduate education For public health in the United States. *Frontiers in Public Health*, 3(138), 5-8.
<http://doi.org/10.3389/fpubh.2015.00138>
- Allen R. F., & Allen J. (1987). A sense of community, a shared vision, and a positive culture: Core enabling factors in culture based health promotion efforts. *American Journal of Health Promotion*, 1(3), 40-47.
- Bernhardt J.M. (2004). Communication at the core of effective public health. *American Journal of Public Health*, 94(12), 2051-2053.
- Detels, R. (2015). Epidemiology: the foundation of public health. In R. Detels, M. Gulliford, M. Q. Abdool Karim & C. Chuan Tan (Eds.), *Oxford Textbook of Global Public Health* (6 ed.), Oxford, UK: Oxford University Press.
<http://dx.doi.org/10.1093/med/9780199661756.003.0103>.
- Fallis, G. (2013). *Rethinking higher education: participation, research, and differentiation*. Kingston: McGill-Queens University Press.
- Freedson, P., Buchner, D. M., Pate, R., Hatfield, B., DiPietro, L., Dzewaltowski, D. A., Gavin, T., & Nessler, J. (2015). Integrating public health in kinesiology: Instruction, academic programs, research, and outreach. *Kinesiology Review*, 4, 355-369.
- Gouda, H. N., & Powles, J. W. (2014). The science of epidemiology and the methods needed for public health assessments: A review of epidemiology textbooks. *BMC Public Health*, 14, 139. <http://doi.org/10.1186/1471-2458-14-139>.
- Havelka M., Lucanin J.D., & Lucanin D. (2009). Biopsychosocial model: The integrated approach to health and disease. *Collegium Antropologicum*, 33(1), 303-10.
- NVivo. (n.d.). Retrieved July 17, 2017 from <http://www.qsrinternational.com/>
- Public Health Services. (n.d.). Retrieved July 17, 2016 from <http://www.euro.who.int/en/healthtopics/Health-systems/public-health-services>
- Sandelowski, M. & Barroso, J. (2003) Classifying the findings in qualitative studies. *Qualitative Health Research*, 13(7), 905-923.
- US Department of Health and Human Services. (2010). Healthy People 2010. Washington, DC: US Department of Health and Human Services. Retrieved from www.health.gov/healthypeople/
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing and Health Sciences*, 15, 398-405. <http://doi.org/10.1111/nhs.12048>.