Physical Activity Line

Effective knowledge translation of evidence-based best practice in the real-world setting

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The development of the new pre-participation and risk stratification strategy (ie, the PAR-Q+ [Physical Activity Readiness Questionnaire for Everyone] and the ePARmed-X+ [electronic Physical Activity Readiness Medical Evaluation])[1,2]* has already been shown to greatly reduce barriers to participation in physical activity for the general population and for those with hypertension.[2-4] This process will also likely translate to increased physical activity among individuals with a range of chronic conditions.[5-7]

Optimal patient care and population-based health outcomes are achieved through inclusion of evidence-based best practice recommendations in health policy and clinical practice.[8,9] Evidence indicates that including face-to-face interactions with key decision makers and end users in the process is more effective at facilitating knowledge translation than traditional passive research approaches are.[8,10] Thus, an integrated knowledge translation model was required to effectively disseminate the information derived from the systematic reviews of the literature behind the new strategy, and ultimately change patient care. Moreover, an emphasis was placed on resource development because it was acknowledged that a lack of effective knowledge translation (ie, implementation tools for end users) would greatly limit the uptake of information from this process.

For example, allied health professionals (eg, qualified exercise professionals,[11] physiotherapists, nurses) and physicians often complain of inadequate continuing education or resources to deal with primary and secondary prevention of chronic disease. For this reason, translation of the new strategy required specially tailored resources that could be applied in clinical settings and used by physicians, allied professionals, and patients alike. These resources needed to be dynamic and designed to keep pace with recent advancements and innovations in the field.

With these factors in mind, the Physical Activity Line served as the key knowledge broker in the refinement of the new pre-participation and risk stratification process and the creation of knowledge translation tools that markedly improved the uptake of the best practice recommendations. This article outlines the Physical Activity Line's role in the effective knowledge transfer of information from the original systematic reviews, highlighting the various knowledge translation tools that the Physical Activity Line has developed and the effect these resources have had on end users and clinical practice.

Discussion

The Physical Activity Line† is a free telehealth and Web resource for evidence-based physical activity information and professional guidance on becoming more physically active. Its vision is to be "Canada's authoritative telephone and web-based resource for practical, evidence-based physical activity information and advice; and thereby, improve the health status of Canadians through physical activity across the lifespan."[12] The Physical Activity Line was instrumental in the effective knowledge translation of the evidence-based best practice recommendations emanating from the systematic reviews of the literature, which formed the foundation of the new strategy.[1] In close collaboration with the primary research team, members of the Physical Activity Line integrated the risk stratification recommendations into a format that both the general public and health care professionals could easily use. In particular, the Physical Activity Line played an important role in the ongoing evaluation and refinement of the ePARmed-X+ in collaboration with the investigative team, and various national and international associations. It was able to test the risk stratification strategy on a daily basis in a telehealth setting, which assisted the lead investigators in the refinement of the new physical activity clearance and risk stratification strategy in a timely and efficient manner.

The Physical Activity Line provides the latest information in exercise prescription and physical activity participation for a variety of conditions. The qualified exercise professionals who man the telephone lines, answer e-mail communications, and interact with the general public via blogs and social media tools (eg, Twitter, Facebook, Pinterest, and Google+) use the information that was generated through the consensus process to provide individualized guidance to persons interested in becoming more physically active. This includes providing lifestyle counseling to those living with established chronic conditions. Also, more than 120 fact sheets have been created for the general public and health care professionals.[13] Therefore, the general public and physicians now have access to considerable evidence-based resources that they can use free of charge.

The Physical Activity Line and its resources have been warmly received by the medical community, particularly primary care physicians and specialists who require evidence-based best practice resources for their patients. Physicians need valid and reliable evidence on which to

*For more information on the PAR-Q+ and the ePARmed-X+, visit **www.eparmedx.com**.

†For more information on the Physical Activity Line, visit **www.physicalactivityline.com**.

base clinical practice decisions,[14] and the Physical Activity Line can assist physicians in this process. Currently, health practitioners receive assistance daily in the provision of effective exercise prescription for higher-risk patients. Physicians are also referring patients to the Physical Activity Line for exercise and physical activity guidance. Many patients previously had limited options for becoming physically active; now they can receive one-on-one advice from qualified exercise professionals who use evidence-based best practice recommendations. Physicians have also extensively recommended the Physical Activity Line to patients because this knowledge translation medium has been effective in improving the health outcomes of their patients. For instance, the Physical Activity Line and its resources have been shown to lead to measurable improvements in the overall health status of a range of clinical populations (including persons living with breast cancer or chronic kidney disease, and patients who have had bariatric surgery).[15-17]

Conclusion

From the onset of the development of the new risk stratification and physical activity clearance strategy, the lead investigators recognized that the original recommendations and decision trees emanating from the systematic reviews would have little effect upon actual practice without an effective knowledge translation mechanism. The Physical Activity Line has served as the key knowledge broker, providing an essential link between the research team and end users. The Physical Activity Line and its staff and volunteers were instrumental in the refinement of the new physical activity clearance and risk stratification strategy. Consistent with the requirements of an effective knowledge broker,[8,18] the Physical Activity Line played an important role in identifying the issues and problems that needed to be addressed, harnessed the expertise of the research team and collaborators who shared this expertise with others, developed effective communication tools, established new collaborations with key stakeholders, and was instrumental in the assessment and translation of the evidence in actual clinical practice.

The Physical Activity Line makes extensive use of the Internet and social media tools to provide evidence-based best practice recommendations to asymptomatic and symptomatic clientele. The Physical Activity Line and its resources are already in great demand. Physicians now have at their disposal a range of evidence-based resources and qualified exercise professionals to assist them in promoting the health benefits of physical activity. Physicians also have a viable option for referral of their patients for the provision of exercise and physical activity guidance based on overwhelming evidence of best practice. Thousands of Canadians have already used the Physical Activity Line, and it is anticipated that this number will grow exponentially in years to come.

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Acknowledgment

The BC Ministry of Health, the Public Health Agency of Canada, the Health & Fitness Program of BC, and the Canadian Institutes of Health Research have provided financial support for the Physical Activity Line.

Competing interests

Dr Bredin and **Dr Warburton** are volunteer Co-Directors of the Physical Activity Line.

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