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More than \$1.5 million in funding for study comparing physical activity levels amongst children worldwide

An ambitious University of Lethbridge-led study to create a new app-based questionnaire to compare the physical activity levels amongst children across the globe has been awarded more than \$1.5 million in funding from the Canadian Institutes of Health Research (CIHR).

Dr. Richard Larouche, an associate professor in the Faculty of Health Sciences' Public Health Program, is collaborating with Dr. Mark S. Tremblay, a senior scientist at the CHEO Research Institute in Ottawa, to lead a group of 25 co-investigators as they seek to compare physical activity levels within and between 14 countries on six different continents. Such comparisons could help identify



countries that are doing well in promoting some types of activity and help other countries develop interventions to increase physical activity.

"We lack a comparable instrument to measure physical activity across countries," says Larouche. "So, when we're comparing different studies, some of the differences we see between countries may actually be differences in measurement rather than genuine differences in physical activity behaviours."

First, they aim to develop an app-based questionnaire and determine its accuracy in measuring physical activity among five- to 17-year-olds in low-, middle-, and high-income countries.

"Most of the questionnaires we have are developed in high-income countries like Canada, the United States and European countries," adds Larouche. "They tend to do a

fairly decent job at capturing things like sport participation but to capture the more lifestyle-associated activities, they don't do such a good job."

Low-income countries tend to have less organized sport participation and may have higher levels of active play — which the researchers aim to capture through the newly developed questionnaire. The study, which is funded over three years, will begin with the development of the app-based questionnaire and subsequent preliminary testing in each of the 14 countries. Based on initial results, a new version will be created and then translated into the main languages of each country. From there, a pilot study with about 30 children and one of their parents in each country will be conducted to see if further changes to the questionnaire may be needed. The main study will then follow with 500 children and their parents in each of the 14 countries.

"It's definitely the biggest study that I've led, so it's exciting," says Larouche, who estimates that up to 100 post-secondary students and research staff across the research network will gain valuable experience collecting the data and/or assisting with other study tasks. "If we get the participation we want, which would be about 7,000 kids total, all levels of country income, based on the World Bank classification, and from urban and rural locations, we will have excellent data to work with that's directly comparable."

It will allow researchers to gain an understanding of which countries are doing better than others in promoting physical activity among their youth. This, in turn, can help generate ideas for future policies or interventions by researchers and practitioners. It also generates a dataset that can be used by other researchers for future studies.

"We expect our new questionnaire will facilitate the measurement of physical activity globally," concludes Larouche. "Our sample has the potential to be the largest and most diverse ever collected to assess the accuracy of such a questionnaire."

To view online: https://www.ulethbridge.ca/unews/article/more-15-million-cihr-funding-study-comparing-physical-activity-levels-amongst-children

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