Research on Physical Activity and Health: Where Is Latin America?

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The initiative of devoting a supplement of the *Journal of Physical Activity and Health* to Latin American research could not be timelier. The region is experiencing rapid epidemiologic, demographic, and lifestyle transitions, which are leading to an increase in the prevalence of chronic diseases. Overweight and obesity now exceed underweight in most countries from Latin America and chronic diseases account for approximately 57% of total mortality in the region.3

A recent systematic review of Brazilian literature found that epidemiologic research on physical activity has exponentially increased particularly after the year 2000.4 There are many promising physical activity interventions in Latin America—a few examples in Brazil include the Agita Program,6 Academia da Cidade,7 and CuritibAtiva.8 In Colombia, examples of these types of programs include Muévete Bogotá9 and the Ciclovía-Recreativa programs.10 The Brazilian government now funds more than 500 cities as part of a national network for carrying out interventions that promote physical activity and healthy eating.11 The combination of the factors previously addressed suggests that Latin America has much to contribute to the literature on physical activity and health.

To evaluate the extent to which Latin America contributes to the overall physical activity and health literature, we scanned original and review papers published between 2004 and January 2009 in 8 scientific journals, that frequently publish articles on physical activity and health: the *American Journal of Preventive Medicine*, the *American Journal of Public Health*, the *Journal of Epidemiology and Community Health*, the *Journal of Physical Activity and Health*, the *International Journal of Behavioral Nutrition and Physical Activity*, *Medicine and Science in Sports and Exercise*, and *Preventive Medicine*.

We scanned tables of contents and articles in the search of first authors from Latin America or studies which took place in the region. Table 1 shows the number of articles on physical activity and health located in each journal during the studied period, as well as absolute and relative numbers of articles with a first author from Latin America or with data collected in the region.

Latin America represents 8.5% of the total world population, yet physical activity and health literature from Latin America only accounts for 2% of the peer reviewed literature in these 8 English language journals according to our scan. This is a large disproportion that raises concern and merits further exploration. A systematic review conducted in 200612 also noted the small percentage of research from Latin America that is published in peer review literature and highlighted the need for rigorous evaluation of promising interventions to increase physical activity in Latin America.

There are several potential reasons that contribute to this scenario, this commentary addressed 4 of them, namely language barriers, lack of background in public health sciences (eg, epidemiology, biostatistics), publication bias,13 and funding priorities. Most Latin American countries have Spanish as their official language, whereas Brazil, the largest country in the region, speaks Portuguese. Out of 42 articles epidemiological articles identified in a systematic review conducted by Hallal and colleagues,4 only 9 (21%) were published in journals that have English as the official language. To change this scenario, more training of researchers in English writing will be needed. In terms of methods, Latin American researchers need to extend their research skills beyond clinical and laboratory medicine to epidemiology, behavioral science, and policy analysis. For instance, only recently in Brazil have postgraduate programs in epidemiology started to accept students with a physical activity background.4 Most importantly training about effective and evidence based interventions as well as skills in behavioral science and policy is essential for high quality population research.

Publication bias should also be considered. This bias is commonly defined as a greater tendency of research with statistically significant results to be submitted and published rather than results that are not statistically significant and/or null.14 An additional type of publication bias...
bias may arise from the editorial policies and make-up of journal boards that decrease the geographic representation of articles. For example, a recent commentary by Victora and Moreira\(^1\) showed that 3 in every 4 Latin American researchers from the public health field attributed the imbalance in publication rates to the “rich North” versus the “poor South” factor.

Another challenge involves the priorities of major health research funders, especially in the Americas. To a great extent, funding for physical activity research has come from the governments of the United States and Canada with little internal support and almost no support from major international philanthropies and foundations for Latin American studies. However, the glaring imbalance between the huge burden and cost of chronic diseases in developing countries and vanishingly small support for research and public health programs (http://www.who.int/chp/chronic_disease_report/en/index.html) is leading philanthropic organizations to reassess their funding priorities. The Gates and Bloomberg Foundations have initiated large programs focused on combating chronic diseases through tobacco control in low and middle income countries (http://www.tobaccoatlas.org). With the increasing Latino population in North America, research conducted in Latin America on chronic disease prevention and physical activity promotion is highly relevant for public health in the US and Canada, and therefore, funders should consider broadening their reach internationally.

It is time to begin changing this scenario, and we believe that this supplement is a very important step in this direction.

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**References**