

Title:

Physical Activity in U.S. Asian Indian Women: Comparison of Acculturation Level and Immigrant Status

Nitha Mathew Joseph, PhD

School of Nursing, Department of Acute & Continuing Care, University of Texas Houston Health Science Center, Houston, TX, USA

Sandra K. Hanneman, PhD

Center for Nursing Research, University of Texas School of Nursing at Houston, Houston, TX, USA

Sheryl L. Bishop, PhD

School of Nursing, The University of Texas Medical Branch, Galveston, TX, USA

Session Title:

Promoting Physical Activity in Women

Slot:

H 14: Saturday, 29 July 2017: 8:30 AM-9:15 AM

Scheduled Time:

8:30 AM

Keywords:

Acculturation, Asian Indians and Physical Activity

References:

- Daniel, M., Wilbur, J., Marquez, D., & Farran, C. (2013). Lifestyle physical activity behavior among South Asian Indian immigrants. *Journal of Immigrant and Minority Health*, 15, 1082-1089. doi: 10.1007/s10903-013-9842-4
- Khan, S. A., Jackson, R. T., & Momen, B. (2016). Impact of acculturation and its factors on metabolic syndrome in south Asian American adults from two community health centers. *Journal of Public Health*, 24(4), 307-315. doi:10.1007/s10389-016-0726-7
- Mathew Joseph, N., & Bishop, S. L. (2014). Self-Reported physical activity, sedentary behavior and body mass index among U.S. Asian Indian women. *Journal of Medical Research and Practice*, 3(3), 63-70.
- Venkatesh, S., Weatherspoon, L. J., Kaplowitz, S. A., & Song, W. O. (2013). Acculturation and glycemic control of Asian Indian adults with type 2 diabetes. *Journal of Community Health*, 38(1), 78-85. doi:10.1007/s10900-012-9584-6
- Walker, G. J., Caperchione, C. M., Mummery, W. K., & Chau, S. (2015). Examining the role of acculturation in the leisure-time physical activity of south Asians living in Canada. *Journal of Science and Medicine in Sport / Sports Medicine Australia*, 18(2), 156-160. doi:10.1016/j.jsams.2014.02.010

Abstract Summary:

This presentation will inform the audience about the relationships between physical activity, acculturation level, and immigrant status in Asian Indian women in the United States.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
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The learner will be able to discuss the relationships among physical functioning, acculturation, and immigrant status across three domains of physical activity (occupational, household, and leisure), and sedentary behavior.	Background, knowledge gap, design, sample, instruments and results of the study
The learner will be able to identify the clinical relevance of examining physical activity behaviors to develop community- and work-based interventions to promote physically active lifestyles in U.S. Asian Indian women.	Discussion of the clinical and research relevance of the study results.

Abstract Text:

Purpose:

Asian Indian women generally have low levels of physical activity, which may increase their risk for chronic diseases compared with Whites and other immigrant groups in the U.S. (Daniel, Wilber, Marquez & Farran, 2013; Mathew Joseph & Bishop, 2014). Acculturation has also been associated with an increased risk for obesity, metabolic syndrome, type 2 diabetes, and coronary artery disease among Asian Indians (Khan, Jackson & Momen, 2016; Venkatesh, Weatherspoon, Kaplowitz & Song, 2013). Additionally, acculturation and immigrant status have been implicated as contributors to low physical activity levels (Walker, Caperchione, Mummery & Chau, 2015). The purpose of the study was to determine differences in three different domains of physical activity (occupational physical activity, household physical activity, leisure time physical activity) and sedentary behavior by acculturation level and immigrant status in U.S. Asian Indian women. Moreover, physical functioning was assessed as a possible explanation of differences in physical activity, independent of acculturation and immigrant status.

Methods:

A cross-sectional, descriptive, comparative design was used with a convenience sample of 261 immigrant and nonimmigrant Asian Indian women living in Houston, Texas, who completed the International Physical Activity Questionnaire long form, the Modified Suinn-Lew Asian Self-Identity Acculturation Scale, and the Physical Functioning subscale from the RAND 36-Item Health Survey. Based on the distribution of the data, chi-square, one-way analysis of variance, or the Kruskal-Wallis test was used to compare study variables among acculturation-immigrant groups. Because the study premise was that activity is affected by acculturation and immigrant status, participants were categorized into four groups according to their acculturation level and immigrant status: low acculturation-immigrant, high acculturation-immigrant, low acculturation-nonimmigrant, and high acculturation-nonimmigrant.

Results:

The low acculturation-immigrant women had the highest metabolic equivalent of task (MET) scores for occupational (59.8 MET hrs/wk) and total physical activity (102.6 MET hrs/wk), even though they were older and had lower physical functioning scores (both, $p < .001$). The high acculturation-nonimmigrant group had the highest leisure physical activity (21.9 MET hrs/wk) and sedentary behavior (47.2 MET hrs/wk) scores. The two high-acculturated groups (immigrant and nonimmigrant) did not differ significantly in occupational and total physical activity MET scores, suggesting that these two physical activity domains are more closely associated with acculturation level than with immigrant status. The high acculturation-nonimmigrant group had the highest leisure physical activity (21.9 MET hrs/wk) and sedentary (47.2 MET hrs/wk) scores. However, the high-acculturation groups had greater proportions of

students than the low-acculturated women ($\chi^2 = 23.55$, $df = 4$, $p = .0001$), and this may partly explain group differences in sedentary behavior.

Conclusion:

Acculturation is inversely related to occupational and total physical activity and may have a direct relation to leisure physical activity and sedentary behavior, the latter of which may be confounded by employment versus student roles. The findings suggest that acculturation of Asian Indian women to the United States is associated with less physical activity, which may increase the risk for chronic diseases. This study is a significant first step on a continuum of research toward the development of effective public health nursing interventions to promote physically active lifestyles. Nurses and other health professionals can consider acculturation levels when developing community- and work-based interventions to promote physically active lifestyles in Asian Indian women.