

Review of: "The Moderating Effects of Urban Design on Willingness to Walk in a Tropical City"

Manuel Esperon-Rodriguez¹

¹ Western Sydney University

Potential competing interests: No potential competing interests to declare.

The study "The Moderating Effects of Urban Design on Willingness to Walk in a Tropical City" is, in general, well-written, and the topic is interesting and relevant given the importance of improving human health in urban areas via walkability.

There are, however, some issues that require attention.

Many statements in the Introduction require references. For example, the hypotheses: "In tropical environments, it is often held that the climate does not support outdoor walks and that people resist walking in ambient conditions outside the normal comfort zone. In keeping with this notion and to provide alternative environments, urban planning promotes climate-controlled shopping centres and public transport, while investing little in outdoor walking environments thought to be unusable. It is widely held that these unfavourable climatic conditions prompt an approach where fitness involves a managed diet and planned physical exercise in dedicated facilities, which is very demanding anywhere in the world."

In: "If tropical climate is largely responsible for resistance to public activity outdoors, then we could expect a continuous and rapid decline in walking rates and distances across travel purposes and local, outdoor environments," I think this only applies to recreational activities, which should be clarified. For working or other public activities that require being outdoors, regardless of the climate conditions, people will be performing these activities.

In the introduction, the term "real environment" reads oddly. Define it for your readers.

What do you mean by "Positive affect" in the section "Environmental factors in willingness to walk"? It reads oddly.

I found the section "Environmental factors in willingness to walk" too long and repetitive. It can be summarised to improve the flow of reading.

In the Methods, for the Participants, what are the biases of using this approach to identify/select volunteers? How did you address these? How did participants know how to describe their rate of participation (MVPA) and frequency of self-assessed vigorous walking? What is vigorous or moderate? Seems quite subjective.

Add a version of Strava.

For the analyses, the study mentions in the abstract: "while total voluntary walked distance equalled that of an indoor, air-conditioned walk at the same location," it's not clear if this was part of the same study or a separate reference point. A proper control condition would strengthen the study design. While 10 environmental factors are mentioned, there's no

explanation of what these factors are or how they were measured. Apart from temperature and humidity, it's not clear if other environmental factors were objectively measured or solely based on participant assessments. If all participants followed the same route in the same order, there could be order effects influencing the results; randomisation or counterbalancing of the route segments could address this. The methods don't discuss the reliability or validity of the instruments used to measure WTW or environmental assessments. While some statistical methods are mentioned, there's no information on how assumptions were checked or how effect sizes were calculated. While age and sex are mentioned in one regression, other potential confounding variables (e.g., fitness level and familiarity with the area) are not addressed. The methods should include information on ethical approval and informed consent procedures.

Some sections in the Results read as part of the methods. Some sections are not even described in the Methods (e.g., all descriptions in section "Regression models for environmental and human factors": VIF values, Shapiro-Wilk, Cohen's f^2 , 9 demographic variables, Rank of importance, etc.).

Many statements in the Discussion require references. Some sections also read like a repetition of the results with no or limited discussion of the results. The Discussion needs a section to discuss the limitations and caveats of the study, including site selection, the low number of participants, any potential bias, among others.

Figure and Table legends need more details. These should be stand-alone and comprehensive enough that a reader can understand the key findings or implications of the table/figure without needing to consult the main text.