RE: RE: “QUANTITATIVE AND QUALITATIVE COMPARISON OF A NEW PROSTHETIC SUSPENSION SYSTEM WITH TWO EXISTING SUSPENSION SYSTEMS FOR LOWER LIMB AMPUTEES”

To the Editor: We would like to thank Dr Dillon, Ms Richardson, and Dr Hafner for their insightful comments and the opportunity to clarify a number of points from our work. In their letter to editor, Dillon et al. were concerned about the questions adopted from the Prosthetic Evaluation Questionnaire and justification to support the focus on discrete aspects of the user experience. To clarify, as it was also cited in our article, we followed the method of Van de Weg and Van der Windt in adoption of the questions. A question measuring both donning and doffing under the “ability to don and doff” was added in their study. This has been addressed in a later study published by the authors.

With regard to the statistical analysis, although it was chosen based on the consultation with a statistics expert, it might not be the only applicable method of analysis. We had first performed repeated-measures analysis of variance. Next, the paired-samples t test was used to find the significant differences between each two of the suspension systems, which was reported in the article. However, we agree with Dillon et al. that post hoc analysis could decrease the error as it was used in our recent study. The inconsistency of works is not unexpected, despite the same adaptation of the Prosthetic Evaluation Questionnaire, as the sample population has changed over the course of time. Moreover, responses to qualitative surveys may change over time because of changes in mobility level, psychological changes, patient experience, and adaptability.

The authors acknowledge that it was a preliminary study on a small number of subjects as pointed out in the limitation statement. It was emphasized at the end that “Satisfaction, particularly with donning and doffing, should also be taken into account when choosing a prosthetic suspension system for a lower limb amputee,” which is a general statement without stressing on a specific system. Although positive and negative results were yielded, the conclusions were also drawn based on our subjects’ experience that is a common practice and of such value that it is taken into account in evidence-based practice. It is evidently accepted that, regardless of the statistical method used, questionnaire surveys should be conducted on a large population to be able to completely rely on the results. Yet, most of the studies in the field of prosthetics are conducted on a limited number of subjects, especially when it comes to new technologies that are still in the prototype level. Future studies can certainly improve on what we have done.

In the end, again, we would like to express our gratitude to Dillon et al. for their invaluable comments and providing us with the opportunity to discuss our research. We will consider the invaluable comments in our future works.

REFERENCES


Arezoo Eshraghi, PhD
Noor Azuan Abu Osman, PhD
Mohammad T. Karimi, PhD
Hossein Gholizadeh, PhD
Sadeeq Ali, PhD
Wan A.B. Wan Abas, PhD
Department of Biomedical Engineering
Faculty of Engineering
University of Malaya
Kuala Lumpur, Malaysia

DOI: 10.1097/PHM.0000000000000304