COMMENTARY

COMMENTARY ON: HOME-BASED TELEREHABILITATION FOR COMMUNITY-DWELLING PERSONS WITH STROKE DURING THE COVID-19 PANDEMIC: A PILOT STUDY

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We have read the article by Carl Froilan D. Leochico et al. (1) with great interest but have also found some points that need further clarification.

Enhancing the specificity of the eligibility criteria is crucial, particularly concerning the inclusion criteria. Rather than simply stating "above 18 years", it is advisable to establish a defined upper age limit for participants. Additionally, it is suggested that the author incorporate information concerning Brunnstrom recovery stages in the inclusion criteria. This would offer clarity regarding the stage at which telerehabilitation would be beneficial. On the other hand, it is important to note that the exclusion criteria should encompass patients with cognitive impairments and those with a history of prior illnesses, as these factors can potentially influence the outcomes. Furthermore, it is advisable for the intervention protocol to adhere to the FIITS principle, which outlines the frequency, intensity, time, and type of exercises. This approach ensures appropriate interventions and facilitates follow-up assessments. Furthermore, it is advisable for the study to incorporate the minimum clinically important difference (MCID) value (2) and to offer detailed information on the reliability and validity of the outcome measurement tools, including the Telepractice Questionnaire, Simple Physical Activity Questionnaire (SIMPAQ), and Happiness Scale.

The introduction of the telepractice questionnaire in the outcome measures and statistical analysis section has raised concerns. As per reference number 11, the questionnaire was initially intended for chronic non-fluent aphasia patients. However, in this study, it was utilized for a non-aphasic population, contradicting the reference. Therefore, it is recommended that this questionnaire be removed. Researchers should prioritize questionnaires with a goal-based design and pay closer attention to their appropriateness for the intended population (3).

The pilot trial in this article deviates from the typical sample size recommendation for pilot studies, which generally suggests 12 to 14 participants, by recruiting 19 participants (4). However, crucial details such as the significance level, data required for determining sample size, assessing data normality, and conducting statistical analysis are missing. Moreover, the study design employed in the pilot experiment is unclear as the sampling strategy is not disclosed. Furthermore, the findings section lacks clarification on data collection methods, particularly for participants who missed sessions. Lastly, the author has not explicitly mentioned the study guidelines followed.

Based on the points discussed above, we recommend that the author exercise caution when determining the sample size, selecting criteria, and utilizing outcome measurement tools, while ensuring proper application of statistical analysis in the manuscript. Despite these considerations, it is noteworthy that this study represents a valuable addition to the limited scientific literature on telerehabilitation in chronic stroke survivors.

RESPONSE TO THE "COMMENTARY ON: HOME-BASED TELEREHABILITATION FOR COMMUNITY-DWELLING PERSONS WITH STROKE DURING THE COVID-19 PANDEMIC: A PILOT STUDY"

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On behalf of my study team, I am writing in response to the commentary on our article, "Home-based telerehabilitation for community-dwelling persons with stroke during the COVID-19 pandemic: a pilot study", which was published in the Journal of Rehabilitation Medicine in July 2023. I appreciate the opportunity to engage in dialogue and address some of the points raised by Ms Haider and Dr Devi, to whom I would like to express my gratitude for taking the time to read and reflect on our work. Constructive criticism

is invaluable in advancing scholarly discourse, and I welcome the chance to clarify and expand upon the ideas presented in our article.

In their commentary, they began with the eligibility criteria. While the upper age limit for study inclusion could have been specified, our team included any adult age (≥18 years) as we did not have prior data on the highest possible age that could participate in a technology-driven intervention. Over the years, Internet penetration has significantly grown in the Philippines (5), which was even tagged as one of the social media capitals of the world. It further increased during the pandemic across different age groups, challenging the stereotype that older adults are hesitant or unwilling to use technology (6, 7). In our study, the participants who passed the eligibility criteria, which implicitly included technology know-how (i.e., using a gadget on their own or assisted by a family member), had a wide age range (i.e. 54.9±11.6 years) (1).

As the study was conducted completely remotely in the context of the COVID-19 pandemic-related restrictions (e.g., physical distancing, suspended in-person outpatient rehabilitation services at our site), we could not perform in-person examinations to accurately obtain additional clinical information, such as muscle tone, that could appropriately inform the participants' Brunnstrom stages of stroke recovery. Nonetheless, in our eligibility criteria we included only community ambulators, providing us with general information on their functional capacity, which we deemed was relevant to our study methods. In addition, we included only patients without aphasia or significant communication difficulties, inability to follow complex commands, and unstable medical illnesses, which were verified during our pre-intervention video teleconsultation that included mental status examination (1).

In terms of the intervention, we provided details following the FITT principle (frequency, intensity, time, type of exercise) in our article. As indicated in our Methods section and Appendix S1, the participants were instructed to follow our exercise videos for a total of 30 min every other weekday for 2 weeks (i.e., 6 sessions) at their most preferred time (1). For every session, the exercises were composed of warm-up and cool-down periods (approximately 5 min each) and an exercise proper (approximately 20 min), which mainly consisted of simple calisthenics and body conditioning.

We then compared baseline and post-intervention values across certain parameters using remotely administered outcome measures previously reported or validated in the literature. First, we explored the participants' perception and acceptance of telerehabilitation using our adapted and translated version of the Telepractice Questionnaire, which was developed by Rhodes & Isaki based on prior literature (8). During our protocol development, we were not able to find any standardized tool that could briefly evaluate patients' perceptions regarding video-based telemedicine familiarity and satisfaction. The frequently used Telehealth Usability Questionnaire (TUQ) and Service User Technology Acceptability Questionnaire (SUTAQ) had more than 20 items each, which we felt might cause survey fatigue among our participants. Hence, we used the existing short and practical Telepractice Questionnaire that was "purpose-built" by the developers for their own study and appropriately aligned with our study aims. Even though the original questionnaire was used for patients with aphasia, it has been successfully used in other non-aphasic and non-stroke populations based on reports published in reputable peer-reviewed journals (9, 10).

Second, we measured the participants' level of physical activity using the self-reported 5-item Simple Physical Activity Questionnaire (SIMPAQ). The reliability and validity of SIMPAQ have been reported in people with mental illness with substantial representation from limited-resource countries (11). A Stroke Physical Activity Questionnaire (SPAQ) exists, but its psychometric properties (e.g., reliability, concurrent validity) remain to be further evaluated (12).

Lastly, we obtained psychological well-being self-ratings from the participants using a single-item happiness scale (i.e., "On a scale of 0 to 10, with 0 being the saddest and 10 being the happiest, how happy do you feel in general?"). The scale was reported to have good temporal stability and validity, but in a large cohort of students and government employees (13). Nevertheless, there was a study that specifically involved community-dwelling older adults with various diseases, including stroke, that closely looked into such single-item well-being measures, which resulted in significant correlations with happiness, life satisfaction, and quality-of-life scores (14).

While we acknowledge the potential value of reporting the Minimal Clinically Important Difference (MCID) to measure response and provide better interpretability of our findings (rather than merely observing trends from pre- to post-intervention), we could not find established MCID scores for our study outcomes and population. Therefore, this could be an area for research. To the best of our knowledge, MCID estimation has not been given much attention in the context of telerehabilitation, and more so in its application in stroke. Providing MCID estimates may not only differentiate the clinical relevance from the statistical significance of a certain change in an outcome, but it can also assist in determining the effect of a given therapy and designing future clinical trials through effect size estimation and sample size calculation (15).

As with the number of participants in our pilot study, we were able to enrol and analyse the data from 19 participants, which was a little more than the recommended minimum of 12 (3). Pilot studies can have 12 to 35 participants per group for continuous outcomes, although those with a larger sample size can lead to a more precise estimate when planning for the main trial (16). We employed purposive sampling, specifically total enumeration, intentionally recruiting all members (n=50) of the stroke support group at our study hospital and providing each with an equal opportunity to be screened for eligibility. As we also aimed to determine the feasibility of our study, we estimated the proportion of people who would be willing to participate, could potentially drop out, and/or could adhere to our recommended intervention. Given our relatively small sample size, we preferred conducting descriptive over inferential statistics as the latter may not yield sound generalizable findings. Hence, we decided to describe trends observed between pre- and post-intervention data.

Lastly, with regard to data collection, three study authors performed outcomes assessment and gathered first-hand information from the participants through phone calls or videoconferencing on social media. Whenever a participant missed a session, we reached out individually through the same methods and collected data accordingly (e.g., reason for missing the session). In the writing of our manuscript, we were guided by the Template for Intervention Description and Replication (TIDieR) checklist to ensure we described our method in adequate detail to allow for its replication (17).

I hope I have been able to enrich some of the concepts in our original article and those raised in the commentary. I am grateful for this opportunity to contribute to this scholarly exchange of ideas. Thank you very much for considering this response.

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