

# Patients' perceptions regarding handling and using of the Wii Sports System in Parkinson Disease

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## INTRODUCTION

People with Parkinson disease (PwP) benefit from ongoing exercise to manage their disease. This can be obtained through home-based programs, such as the Wii Sports System (WiiSS).

However, these programs raise fundamental questions regarding what barriers are perceived by PwP that will influence the adherence of its use.

These may be important issues for physical therapists to target in PwP and need to exercise regularly. The aim of the present study is to identify the usability to exercising with the WiiSS in PwP with special focus on the handling requirements and using it as exercise regime.

## MATERIAL & METHODS

PwP, dwelled in the community, and that were at stages I to III on the Hoehn and Yahr scale (H&Y) participated in this study. Participants were characterized according to: disease staging (H&Y scale), clinical status (MDS-UPDRS), cognition (Mini-mental MMSE), balance (Berg Scale) and functionality (Timed Up & Go test). Study duration was planned for 3 months with 9 practical sessions of 1 hour duration. Participant satisfaction level was assessed based on replies on the Post-Study Usability Questionnaire (PSSUQ).

Additionally, adherence to the sessions was assessed based on (1) number of sessions attended or (2) number of withdraws from the study. Anonymized patients data was analyzed after study approval by the Ethics Commissions of Cooperativa de Ensino Superior Egas Moniz.

## RESULTS

Ten PWP (7 Men) with mean age of  $68 \pm 5,4$  years old participated in our study. All patients participated in all sessions with a 100% adherence rate. The mean value of satisfaction of the participants with the PSSUQ was  $1,6 \pm 0,41$ . Replies with best scores included **"overall satisfaction"**, **"interface was pleasant"**, **"information was effective"**, **"information for the system was easy"**, **"easy to find the information"**, **"information provided was clear"** and lastly **"comfortable using the system"** (Fig.1).

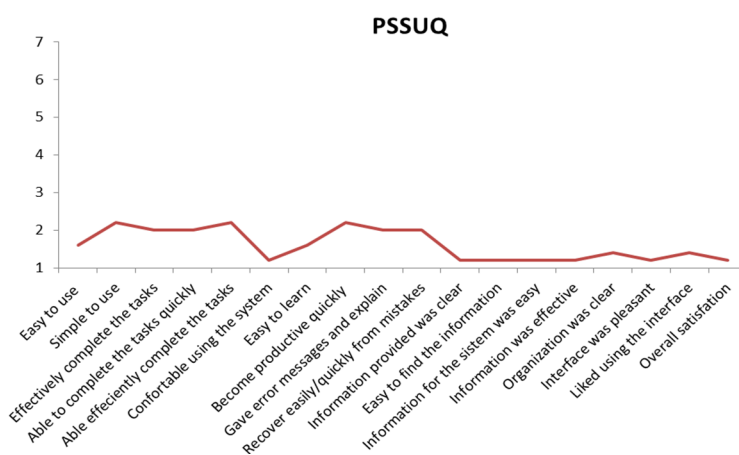


Fig.1 Satisfaction of participants based on the PSSUQ

## DISCUSSION & CONCLUSION

Handling and use of the WiiSS was well received in our group of PwP, who were ambulatory and living in the community. Addressing knowledge requirements and perceptions relating to the handling of technology, as well as recognizing the challenges specific to this patient group in terms of need for more learning processes, may assist in increasing the use of such promising training devices as means of improving patients' physical, psychological and social well-being.