

Participant information sheet

Title of project: Exyo Design Balance Active User Evaluation

Lead Researcher: Rachel Young

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Legal basis for research for studies:

The University undertakes research as part of its function for the community under its legal status. Data protection allows us to use personal data for research with appropriate safeguards in place under the legal basis of **public tasks that are in the public interest**. A full statement of your rights can be found at:

www.shu.ac.uk/about-this-website/privacy-policy/privacy-notice-for-research. However, all University research is reviewed to ensure that participants

are treated appropriately and their rights respected. This study was approved by the University's Research Ethics Committee. Further information at:

www.shu.ac.uk/research/excellence/ethics-and-integrity

You are invited to take part in this research study. Before you decide whether to take part or not it is important to understand what is involved and why the study is being done. You can ask us if you need any more information or if there is anything you are unclear about.

We are asking volunteers to help us to test the Smart Balance Active, an active strength and balance trainer. The Balance Active is designed to enable safe, active standing and balance training. The design ensures that users are in the correct position and increases confidence during more difficult balance activities.

The Balance Active has the potential to reduce the number of falls experienced by older adults and people with balance changes. It may be used at home, in clinics or hospitals. The Smart Balance Active could result in reduced length of hospital stay and improve long term recovery following illness or injury.



Image Taken from
eXyo Design:
<http://exyodesign.com/>

The Smart Balance Active has a newly designed console (screen) on which users can select games and see feedback on their balance.

1. Research Project Title and what is the aim?

The aim of this project is to evaluate the 'user friendliness' of the Smart Balance Active. Participants will be asked about their normal physical activity levels and balance confidence. The researchers will guide and observe performance of different gaming activities on the Smart Balance Active. The research team will record the immediate responses to the Smart Balance Active device using a video camera to detect movement.

2. Who Can Take part?

To take part you need to be between 60 and 85 years old. You will need to be able to walk 100 metres independently and have movement in all four limbs.

We will recruit participants who are resident in the city of Sheffield. Participants will need to be able to comprehend written and spoken English and provide informed consent. Participants will need to be able to travel to the Advanced Wellbeing Research Centre (AWRC) by taxi or private car. Travel costs will be reimbursed.

During the initial telephone call with the research team we will complete a health screen to ensure your medical suitability for the project.

People with the following health conditions will not be able to volunteer during this phase of testing:

- Neurological condition (for example, stroke or Parkinson's disease)
- Serious lung or heart condition
- History of seizures
- Unstable blood pressure
- Unstable diabetes
- Extreme obesity
- Rheumatoid arthritis
- Severe osteoarthritis
- Moderate or severe osteoporosis
- Cognitive or memory changes affecting ability to give signed consent and follow the data collection protocol.

Participants will also be asked to record a minimum data set which will include name, year of birth, address, mobile number and emergency contact.

3. What will I be required to do?

Initial telephone/video call

If you are interested in taking part then the lead researcher will arrange a telephone or video call with you. During the call you will have the opportunity to ask questions about the project. The lead researchers will go through a short health questionnaire with you. Your details including your name, preferred contact and next of kin will be recorded with your permission.

Testing session

Once recruited to the study we will arrange a convenient time and date to visit the AWRC for the testing session. You will be required to travel to the AWRC in Attercliffe. We can arrange for taxi transport if preferred. All travel costs will be reimbursed. On arrival you will be met by Rachel and guided to the space where the equipment will be set up, here you can become familiarised with the AWRC and be introduced to the researchers.

Participants will be asked to sign a paper copy of their health questionnaire which was verbally completed during the screening call and also a consent form to take part in the study.

Participants will be required to complete a short questionnaire about their physical activity routines and balance confidence. We will then guide participants through some directed and self-directed games/activities on the device. We will ask questions between the activities about how user-friendly you found the device and explore any suggestions you have to improve its design.

At the end of the testing session there will be a short interview which will explore your views on the balance device and its potential value for improving wellbeing.

4. Where will this take place

The AWRC is a newly opened facility in Attercliffe, north Sheffield and is part of Sheffield Hallam University. It is purpose built for the development and testing of innovations designed to help people to move. You may use private transport to travel to the AWRC where parking spaces are available. Alternatively, we will arrange taxi journeys for each visit. All travel expenses will be covered. Further information on the location and venue can be accessed here:

<https://www.shu.ac.uk/advanced-wellbeing-research-centre/contact-us>

5. How often will I have to take part, and for how long?

The project will involve one visit to the AWRC which will last between 1-2 hours.

6. Do I have to take part?

It is up to you to decide whether or not to take part. You can withdraw at any time. You do not have to give a reason and it will not impact any future study or opportunities. You may request that your data is deleted and excluded from analysis for up to seven days following completion of the programme.

If you decide to leave the study we may invite you to share your experience to help us to understand why some people do not complete exercise programmes. You will not be under any pressure to respond.

7. Are there any risks associated with my participation?

Taking part in the study will entail travelling to the AWRC in north Sheffield. The sessions will be scheduled during daylight hours to avoid increased risks associated with travel during the evening. When you are recruited to the study

you will be required to share your travel plan with Rachel to ensure that it is safe. If you require taxi transport this will be arranged by the University using an approved provider.

The risks associated with balance training on the Smart Balance Active are very low. In the very unlikely occurrence of an adverse response or accident the emergency protocol at the AWRC will be actioned.

8. Who will be responsible for all of this information when the study is over?

The data and information will be the property of Sheffield Hallam University and the lead researchers: Rachel Young, will be responsible for its secure management.

9. Who will have access to the data?

The research team assigned to this project include a small group of rehabilitation professionals and sport engineers. All team members are contracted to work with Sheffield Hallam University and will abide by GDPR guidelines in the handling of all data. More information can be accessed here:

<https://www.shu.ac.uk/research/quality/ethics-and-integrity/data-management-policy>

10. How will you use what you find out?

The findings from this project will be used to evaluate the usability of the Smart Balance Active amongst adults. The effects and benefits of the Smart Balance Active for older adults will be shared and this may lead to increased investment in the equipment for future research projects.

11. Will Anyone be able to connect me with what is recorded and reported?

The identifying information included on the consent forms will be stored in a secured, password protected drive.

The data collected during your assessments and exercise sessions will be coded and not identifiable to you

12. Will I receive payment?

A £10 retail voucher will be offered following each visit in gratitude for time given.

13. How can I find out about the results of the study?

You may request your data set following completion of the study. Any posters, reports or presentations which display the results will be shared with participants.

14. What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

We will be recording your responses to the Smart Balance Active. This will include game selection on the console and how you respond to the games whilst standing on the Smart Balance Active. We are interested in seeing how user-friendly the console is so that any glitches or confusing features can be improved.

15. Who is organising and funding the research?

Sheffield Hallam University have worked with Exyo Design since 2019 and are subcontracted to complete this part of the testing. The project is funded by Innovate UK.

16. Who has ethically reviewed the project?

The project was reviewed by the public involvement group at the AWRC. The ethics committee at Sheffield Hallam University have approved this project.

17. Contacts for further information:

Dr Rachel E Young

Senior Research Fellow

Sheffield Hallam University

Email: r.young@shu.ac.uk

What if I have a complaint?

If you want to make a complaint about how people have approached you or treated you during the project, please contact Jo Posnett at J.P.Posnett@shu.ac.uk

If you **remain** unhappy and wish to complain formally, you can do this through the Data Protection Officer Keith Fildes and the head of SHU ethics Ann Macaskill.

You should contact the Data Protection Officer if:

- you have a query about how your data is used by the University
- you would like to report a data security breach (e.g. if you think your personal data has been lost or disclosed inappropriately)
- you would like to complain about how the University has used your personal data

DPO@shu.ac.uk

You should contact the Head of Research Ethics (Professor Ann Macaskill) if:

- you have concerns with how the research was undertaken or how you were treated

a.macaskill@shu.ac.uk

Postal address: Sheffield Hallam University, Howard Street, Sheffield S1 1WBT

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