**Table, Supplemental Digital Content 3. Acceptability and Enjoyment of Technology-based Exercise Interventions**

| **Study Author** | **Living status; Characteristics;****Study period** | **Setting; Technology;****Exercise dose** | **Methods used to assess enjoyment and acceptability** | **Results**a |
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| Chao et al33 | RACF;High-risk;4 wk | Center, supervised;Wii Balance board;30 min; 2 d/wk | Semi-structured interviewsb | *Enjoyment:* Participants stated that they enjoyed the program.*Desire to continue using the program after the study:* Participants also stated they would like to continue to exercise after the program is finished. Residents suggested to the RACF that Wii exergames should be continued in the facility.  |
| Franco et al23 | Independent; Healthy;3 wk | Center, supervised;Wii Balance board;10-15 min; 2 d/wk | Enjoyment questionnaire post-intervention.Questions related to enjoyment of the Wii Fit balance games, motivation, interest, and perceived improvement in balance. | *Enjoyment:* 81% reported high levels of enjoyment.*Perceived improvements in balance:* 18% high improvements; 64% moderate improvements.*Preference of Wii Fit:* 27% reported Wii fit exercises were much better and 55% reported they were better than traditional balance exercise.*Desire to continue using the program after the study:* At completion of the study all participants were able to use the Wii Fit and it has become a sustainable program at the facility. One participant said *‘I’m going to ask my children to buy me this* [Wii Fit] *for my birthday’*.  |
| Jorgensen et al16 | Independent;High-risk;10 wk | Center, supervised;Wii Balance board;35±5c min; 2 d/wk | Three question survey at 5 and 10 weeksQuestions:(a) “I find the Nintendo Wii training both fun and motivating,” (b) “I would like to continue using Nintendo Wii training in my own home,” and (c) “I would like to continue using Nintendo Wii training in a nearby seniors’ center.”  | *Fun and motivating*: At 5 and 10 weeks participants who continued with the Wii program either ‘agreed’ or ‘strongly agreed’ with the statement that Wii training was fun and motivating. Similar trend was observed for statements b and c.*Desire to continue using the program after the study:* Split opinion within the Wii group as to wanting to continue using Wii training in their own home or at a nearby seniors’ center |
| Keogh et al35 | RACF;High-risk;8 wk | RACF, semi-supervised;Wii Balance board;Exercise dose was self-selected | Semi-structured group interviews at study completion (n=7).  | *Three themes emerged from the interviews:* Feeling Silly, Feeling Good; Having Fun; Something to Look Forward To: - Competitive and supportive atmosphere. - Increased and enhanced social interaction when playing and watching others play. - Initial apprehension due to the lack of prior knowledge or experience in using technology changed to a feeling of pride and personal satisfaction after becoming competent in using the system.*Desire to continue using the program after the study:* Most participants were interested in continuing to play after the study was finished. |
| Maillot et al27 | Independent;Healthy;12 wk | Center, supervised;Wii Fit, Sports - remote and balance board;60 min; 2 d/wk | Questionnaire at completion of intervention. 1. Similarity between the exergame sessions and conventional forms of physical activity (5 point scale 1-very much, 2-much, 3-relatively, 4-not much, 5-none).2. Difficulty of the training sessions (1-very easy, 2-easy, 3-reachable, 4-difficult, 5-very difficult).3. Improvement in body knowledge (Yes/No)4. Would like to continue using exergames (Yes/No)5. Would like to begin a program of physical activity (Yes/No)3. Would like to acquire an exergame game console (Yes/No) | *Usability:* Exergame training was manageable for older persons (80% agreed), and seemed comparable to other physical activity (80% of results ranged between ‘very much’ and ‘relatively’).67% of participants thought that their body knowledge improved with the training program, and 47% were considering beginning a program of physical activity.*Desire to continue using the program after the study:* All participants reported that they would like to continue with exergame activity, however only 40% contemplated acquiring a game console.  |
| Schoene et al18 | Independent;Healthy;8 wk | Home, unsupervised;Dance pad, adapted Step Mania game;15-20 min; 2-3 d/wk | Single question (yes/no) asking whether participants enjoyed playing the exergame. | All but one participant indicated they enjoyed the playing the exergame. |
| Silveira et al36*(Continuation)* | Independent (home-care);Healthy;12 wk | Home, unsupervised;Tablet-computer application;NR; 5-7 d/wk | Questionnaire used to assess effectiveness of the motivational instruments inbuilt into the tablet-computer application. The effectiveness of the motivation instruments was assessed using a 7-point Likert scale.  | *Enjoyment*All participants thought it was fun to perform the strength and balance exercises using the application. Few participants (<25%) felt frustrated, worried, or nervous during the study. More than half of the participants, 54% from the individual group and 67% from social group, will miss the ActiveLifestyle App. *MotivationSocial version of the App:* The most effective motivating strategies were conditioning through positive social inclusion and external monitoring (all 83%); followed by the awareness of the benefits of physically activity (82%); emotional support (75%); goal setting and self-monitoring (67%); participation in the collaboration game (58%); positive and negative reinforcement (50%), and the comparison of their performance with other training participants on the bulletin board (42%). *Individual version of the App:*- Most of the individual group felt motivated by the goal-setting and self-monitoring strategies (91%) - 64% felt motivated when they saw the plant growing, whereas 55% felt motivated by the mood status of the gnome. - Most participants in the individual group (64%) expressed that they would feel more motivated if they could use the social version of ActiveLifestyle, but the reverse was not true. |
| Williams et al15 | Independent;High-risk;12 wk | Center (hospital), supervised;Wii Fit;NR; 2 d/wk | Attitude to Falls- related intervention questionnaire (AFRIS) and qualitative interviews at study completion. | There was no difference in the AFRIS score suggesting that the WiiFit is as acceptable as standard care.*Enjoyment and acceptability-* 100% of the intervention group (inclusive of the two dropouts) found the intervention to be enjoyable and acceptable.- Over half of participants felt that the exercise sessions were the right length and the right frequency (69%), with 23% expressing that the sessions were too short. - The intervention group felt that *‘people like me’* would participate in a similar exercise programme if it was more widely available (77%). *Desire to continue using the program after the study:*- Participants expressed a strong desire to exercise with the WiiFit in the future (92%), showing no preference towards exercising on their own/with company or towards supervised/unsupervised sessions.- Participants indicated they were willing to exercise with the Wii in their own homes.- When asked for a preference to falls group or exercise with the WiiFit in the future, 61% chose the WiiFit, 8% chose falls group, 8% chose both and 23% did not know. *Themes emerged from the interviews:**- Positive themes:* Improvement in confidence following the intervention, sense of positivity about the researchers, exercise sessions provided a space for social interaction, participants would like a Wii of their own. *- Negative themes:* Feeling pain or discomfort while exercising, feeling tired, experiencing difficulties getting to the sessions. *Suggestions for improvement:* A number of participants expressed that a wider range of games might have prevented boredom. |

Abbreviations: RACF, residential age care facility; Center, exercise intervention was delivered within a research laboratory, gymnasium or other facility that is not the participants’ place of residence; Healthy, not high-risk; High-risk, frailty, muscle weakness or a balance and gait impairment was a study inclusion criterion; NR, not reported

aResults are presented as reported in the included articles; no calculations were made.

bInterview results from the study were reported in a separate paper: Chao YY, Lucke KT, Scherer YK, Montgomery CA. Understanding the Wii Exergames Use: Voices from Assisted Living Residents. Rehabil Nurses. 2015.[Epub ahead of print]

cThis is the actual exercise time, which excludes the time spent watching others play.