

Exergames and community intervention: a proposal for its use and intervention

Exergames e intervenção comunitária: uma proposta metodológica para o uso e intervenção

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Resumo

Objetivo: Apresentar uma proposta de sistematização para o uso dos EXG's, visando sua utilização em grupos comunitários. **Métodos:** Os instrumentos que deverão ser utilizados para a efetivação da intervenção serão: um console com sensor de movimento, jogos de dança, equipamento de projeção, caixa amplificadora, mesa e fitas adesivas para a demarcação do local. Em nossa experiência foi utilizado um espaço de 12,1 x 5,80m para a efetivação das atividades. Embora estas medidas tenham sido determinadas, podem ser adaptadas, em escala, para qualquer espaço. A efetivação foi realizada a partir de um rodízio em "serpentina", o que viabiliza a participação simultânea de um grupo comunitário. Neste sistema de rodízio, dois participantes são tidos como referencial (PR) que interagem diretamente com o jogo, enquanto que os demais participantes (DP) são distribuídos nos espaços demarcados em grupos de quatro ou mais. A cada troca de música, proposta pelo jogo, os PR se deslocarão para o final da demarcação e os DP que estarão posicionados à direita da tela passarão a ser os PR, interagindo diretamente com o jogo. **Conclusão:** Considerando sua aplicabilidade, consideramos que as atividades de pesquisa e intervenção comunitária que se utilizam dos EXG's como atividade fim podem obter grandes ganhos de resultados a partir da aplicação desta metodologia, visto sua objetividade, baixo custo e maior possibilidade de utilização comunitária.

Palavras-chave: exergames, programas comunitários, atividade física.

Abstract

Objective: To present a systematization proposal for the use of EXGs aiming at its use in community groups. **Methods:** The instruments that will be used to carry out the intervention will be: a console with motion sensor, dance games, projection equipment, amplified speakers, table and adhesive tapes for place demarcation. This study used a 12.1 x 5.80m space to carry out activities. Although these measures have been previously determined, they can be adapted, in scale, to any space. Activities were performed based on an "Serpentine" rotation, which allows the simultaneous participation of a community group. In this rotation system, two participants are considered as reference (PR), and directly interact with the game, while the other participants (DP) are distributed in the spaces in groups of four or more. At each music exchange proposed by the game, PR will move to the end of the demarcation and DP that are positioned to the right of the screen will become PR, directly interacting with the game. **Conclusion:** Considering its applicability, we consider that the research and community intervention activities that use EXGs as an end activity can obtain great gains in results from the application of this methodology, given its objectivity, low cost and greater possibility of community use.

Keywords: exergames, community program, physical activity.

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Introduction

Several studies¹⁻² have pointed the increased sedentary behavior as one of the main public health problems. This fact has occurred due to the changes in behaviors, causing children, adolescents, adults and older adults to remain for longer periods in their homes, contributing to the increase of sedentary behavior (SB)³.

Although the large number of hours⁴ in front of TV, videogames or computers contributes to increase SB, an electronic game that prioritizes physical effort and interaction with virtual environments has recently emerged, which can contribute to the development of physical fitness and consequently to increase caloric expenditure, being called Exergames (EXGs)⁵.

Due to their characteristics⁶, these games enable children, adolescents, adults and older adults to reach recommendations proposed by the World Health Organization about the practice of physical activities for at least 60 minutes daily from moderate to vigorous intensity for children and adolescents and 30 minutes at the same intensity for adults and older adults⁷.

According to Lwin⁸, EXGs can be a strong complement to physical education classes, since they increase the levels of energy expenditure, improve motor skills and generate great situational interest.

Thus, it is determinant in attracting children and adolescents⁹ to engage in the practice of physical activity, and the participants' adherence, as well as their playability, is increased when EXGs are practiced in a group¹⁰.

However, there is no adequate systematization of activities to be carried out with EXGs in activities that characterize community or group practice, and it is evident that the types of games used and the adequate structuring of the methodology applied to the magnitudes of gains are greater in comparison to the applications of EXGs in the free form without structuring and monitoring¹¹.

Although studies¹²⁻¹⁴ have used several methodologies using EXGs, allthem prioritize individual activity, verifying that there is no systematized methodology that allows the participation of a large group of subjects.

Based on the above and on an intervention experience with a community group, this study aims to present a systematization proposal for the use of EXGs aiming at their use in community groups.

Proposed systematization of activities

The instruments that will be used to carry out intervention will be: a console with motion sensor, dance games, projection equipment, amplified speakers, table and adhesive tapes for place demarcation (Figure 1).

In our experiment, a 12.1 x 5.80m space (Figure 1) was used to carry out activities. Although these measures have been determined, they can be adapted, in scale, to any space.

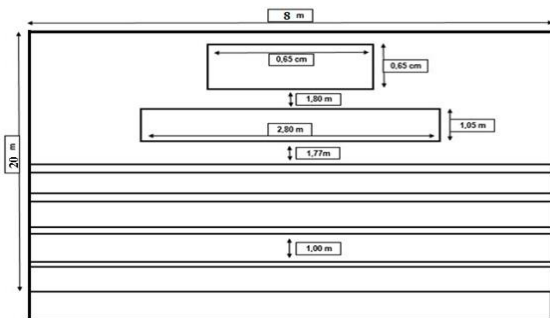


Figure 1. Measures of the demarcation lines of spaces used by participants.

Activities were performed based on an "serpentine" rotation, which allows the simultaneous participation of a community group. In this rotation system, two participants are considered as reference (RP) (figure 2; No. 2), and directly interact with the game, while the other participants (OP) are distributed in the spaces in groups of four or more (figure 2). At each music exchange proposed by the game, RP will move to the end of the demarcation and OP that are positioned to the right of the screen will become RP, directly interacting with the game.

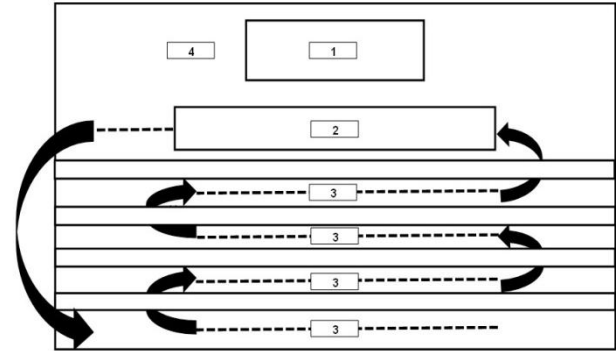


Figure 2. Representation of the "Serpentine" rotation system used in interventions with EXGs in classes for community groups, places used for the layout of materials and participants.1). Distribution of materials used; 2). Positioning of RP; 3) Positioning of OP; 4) Speaker.

Concluding remarks

Considering its applicability, we consider that the research and community intervention activities that use EXGs as an end activity can obtain great gains in results from the application of this methodology, given its objectivity, low cost and greater possibility of community use.

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