

Digital Inclusion for Older Adults based on Physical Activities: an Age Concern

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Abstract

Nowadays, we are living in an interdependent and interconnected world during an age that is driven by technological progress. It has extraordinary potential to improve the quality of later life: creating social networks to tackle isolation and loneliness; transforming services to help people live independently at home for longer; empowering consumers; and enabling civil participation. In light of this, this poster aims to present the development process of a digital booklet for mobile devices – smartphones and tablets that illustrate the benefits of doing physical exercises for older adults aiming to improve life quality and minimizing digital exclusion.

Keywords:

Older Adults; Physical Exercises; Digital Inclusion.

Introduction

The main barrier of using computers and the internet among older people appears to be a lack of understanding and confidence with 'how it works'. People struggle to comprehend how to use the actual equipment and require explanation as to 'what to press and when' [1].

The benefits of physical activity practice are not restricted to physical-functional and mental field of individuals, but also to social, improving functional performance, maintaining and promoting the independence and autonomy of the older people. Especially among the elderly, it has been found that physical activity decreases the risk of institutionalization and the use of health services and medications [2].

Despite a low level of understanding about how information and communications technology (ICT) can be used, knowledge of its potential benefits is surprisingly high in older people population. From this perspective, this poster presents a project about the development of a digital booklet that will be used to allow older people technological initiation and digital inclusion approaching information about the gains of physical exercise.

Materials and Methods

All methodological actions were planned for integration with extension activities to academic proposals and involved a group of students (undergraduate and postgraduate).

1. Literature review: for understanding the state and progress of current literature on older people health and well being by organizing, integrating, and evaluating previously published books and articles, specially from Brazilian Ministry of Health.

2. Practical abilities: visits were made to the older people group who practice physical activities under Professor Carmelo Pina's supervision. The group consisted of about 50 elderly women, 60 to 90 years, who are under regular medical supervision. The main goal of this phase was to integrate the theoretical versus practical concepts. All the students attended the activities and contributed to a technical report.

3. Questionnaire application: the questionnaire was applied to a group of 30 elderly women. The main results were: (i) average age: 68,7; (ii) previously read booklets (26); (iii) information gathering location: newspapers (18), magazines (10), and internet (13); (iv) how difficult was it to use new technologies: very easy (1), easy (8), medium (9), hard (10), or very hard (3); (v) internet usage: daily (6), weekly (10), biweekly (2), monthly (1), or almost never (5); (vi) favorite colors: blue and red; (vii) not favorite color: black.

4. Booklet development and testing: the process involved: (i) booklet content writing: after analysis of the group, we selected the following subjects: Mobility, Resistance, Balance and Motor Coordination. (ii) graphic design: using the questionnaires results for the definition of booklet layout; and (iii) user interfaces and application engine: development of the digital booklet through web technologies (HTML5).

Partial Results and Ongoing Work

The use of mobile technologies universalizes and stimulates people's access to health practices. In this case, the elderly population for which it is to exercise more, greatly improving their quality of life. Thus, through the application of educational, older people will be presented with the opportunity to: (i) review concepts and fundamentals of situations and teaching and learning conditions, inserting them and acclimatizing them in the current and future reality of the elderly; and (ii) work the social, psychological, and health (physical and mental) of the elderly.

References

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