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PA4AGE

Promotion of physical activity for the third age

Project Result 1: Result Report

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Project Result 1: Result Report

1. Literature Review

Although the profound influence of exercise upon health applies throughout the entire lifespan, the common axiom that "Exercise is Medicine" is of particular relevance among older people [1,2]. "Exercise is medicine", first stated by the American College of Sports Medicine in 2007, (https://www.exerciseismedicine.org), has become a global health initiative, especially in relation to healthy aging.

Among the rapidly growing population of older people, the benefits of exercise are diverse, spanning numerous domains of physical health and well-being, medical morbidity and mortality, functional, cognitive, affective and social status, as well as a wider influence on health care utilization and expenditure. For example, exercise among older people has been shown to be associated with a reduction in obesity, coronary heart disease and type II diabetes mellitus [3,4], reduced prevalence of cognitive impairment [5] and depression [6], and is a potentially modifiable risk factor in the prevention of dementia. [7]. Exercise among older people repeatedly shows a consistent and independent association with decreased mortality [8], and even among the oldest old, initiating exercise was found to be associated with preserved function, reduced hospital admissions, and increased longevity [9-11]. Conversely, sedentary behaviour is associated with increased risk of chronic and disabling diseases [12]. At the molecular level, exercise was found, for example, to positively affect markers of cellular immunosenescence in elderly persons.[13]

Subsequently, in 2020 the World Health Organization (WHO) published the new evidence-based guidelines for exercise among adults aged ≥65, comprising 150–300 min of moderate-intensity, or 75–150 min of vigorous-intensity physical activity, per week, combined with ≥three times a week of multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity [14]. These guidelines were further specified by an expert group in 2021 [15].

And yet, despite the known health benefits associated with physical activity, and the easily accessible recommended guidelines, older adults remain highly inactive [16-18], being in fact the most sedentary segment of society [19].

In the 2015 Report on Ageing and Health, the WHO pointed out the important role of physical activity in slowing down age-related deterioration in functional ability, and develop and maintain physical and mental intrinsic capacity in older adults [20]. According to Taylor and colleagues "This new conceptual approach acknowledges the functional diversity among older adults and focuses on health and capability

rather than chronological age. In this way, physical activity is a key enabler of work, social contribution, autonomy and dignity as well as health in older age." [21 p. 2]. In October 2020, the WHO launched the Decade of Healthy Ageing 2021– 2030 in response to rapid, global population ageing [22]. Importantly, physical activity has been globally recognized as important for supporting healthy ageing.

Based on the above, the aim of our project is to promote physical activity in advanced age in the partners' countries. We will first identify trends of, including barriers to physical activity in old age in these countries and will offer a platform of information and guidelines to physical activity for older adults.

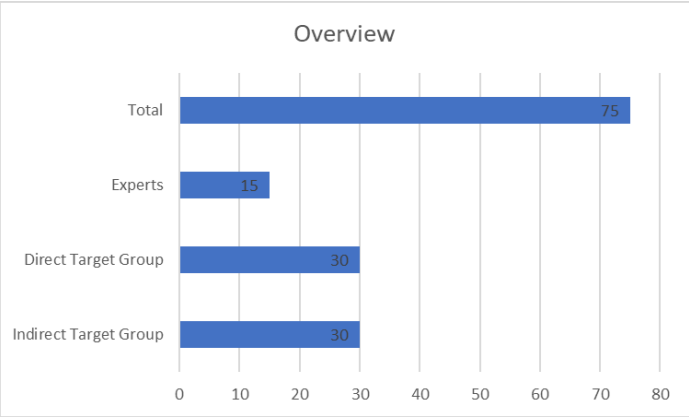
2. Methods

In order to achieve our overall goal of motivating older individuals to participate in PA, we conducted interviews or group interviews (called focus group) with our various target groups as part of the project result 1. Our primary target group includes adults from a variety of professional profiles, such as physical education teachers, physical educators, and organizations involved in active aging. Our secondary target group includes people in their third age and their caregivers who want to know more about physical activity in old age or want to integrate physical activity more into their everyday life. In addition to the two target groups, experts in the field of active aging and/or physical activity were also interviewed. A total of 75 people were to be interviewed, 30 adults from the primary target group, 30 from the secondary and 15 experts. Participants were asked about their sociodemographic data, attitudes toward physical activity, amount of physical activity, entry requirements, barriers, motivations, and learning platforms. In addition to these data, the secondary target group responded to the IPAQ-Elderly questionnaire.

3. Statistics and Analysis

3.1 Sociodemographic Data

In total, N= 75 participants (Mean age=57,58 years old, SD=17,84) were interviewed during the project result 1. They either took part in an interview (53%) or a focus group (47%). All different target groups were reached.



Of the experts, 60% were female, 33% were male, and 7% did not specify their gender. In the indirect target group, 77% were female, 20% male and 3% did not specify their gender. Similar figures can be found for the direct target group. 73% female and 27% male subjects took part in the survey.

More detailed information concerning sociodemographic data can be extracted from the power point presentation that is attached to this document.

3.2 IPAQ

N = 26 persons from the indirect target group completed the short form of the IPAQ questionnaire. The IPAQ questionnaire assesses the health-related physical activity level of the participants (vigorous, moderate and walking activity) as well as their seated activities. Some participants did not answer all questions, they have been removed for those and only included for the other questions which they answered correctly. Referring to the seated activity, a mean value of M = 5.57 hours per day (SD=2.64) has been assessed. Concerning the time spent in walking, the participants were on average active on M=5.69 (SD=1.85) with an average amount of M=98,8 minutes (SD=139.9) per day. Moderate activities were performed on an average of M=3.94 days (SD=2.29) with an average amount of M=117.2 minutes (SD=144.67) per day. Lastly, the participants performed vigorous physical activity with a mean of M=1.23 days and an average amount of M=51.14 minutes (SD=100.97) per day.

	N	Min	Max	Mean	σ
Sitting time	25	2	12	5,57	2,64
Days:walked at least 10min at a time	26	2	7	5,69	1,85
Time: walked at least 10 min at a time	24	10	640	98,75	139,89
Days: moderate physical activity	26	0	7	3,94	2,29
Time: moderate physical activity	26	0	640	117,19	144,67
Days: heavy physical activity	26	0	7	1,23	2,08
Time: heavy physical activity	26	0	300	51,13	100,97

3.3. Interviews– Key Aspects

Physical Activity/Health

According to the feedback of all partners, most older persons prefer group exercises that take place in presence. Online exercises are often experienced as difficult to implement for technical reasons. In addition, people from the secondary target group want courses that are tailored to them and their capabilities. The fear of falling was also mentioned several times. From the point of view of the experts and the primary target group, many of the people they support are fit to the best of their abilities; however, they emphasize that everyone should be more physically active.

Attitude and Conditions of entry

The attitude of participants towards sports varied from not wanting to do it to what can I do. Some replied that they already spend lots of time doing house chores or gardening at home, therefore, they did not feel the need to exercise. While some showed the helpless or clueless attitude because they did not know what options they have. Part of the participants also showed the lack of confidence. “I do not think I can start now”, said by one participant.

Regarding the Learning Platform

In terms of the app, ease of use in particular was mentioned as a top priority. "I can't imagine using this platform without help," said one participant. Therefore, immediate technical support is key to whether or not older people would use this platform. In addition, the platform should also be adaptable and flexible, as each person has different schedules, goals, and health conditions. In addition to adaptability,

participants also indicated that it would motivate them more if the exercises were demonstrated by people in their age group, so they would identify more with the sessions.

Regarding the learning platform, people also commented on the ease of use and requested a simple system in which they could also work through only the part that interested them. In addition, some people from the primary target group wished to know how they could motivate men to become physically active. To better motivate older people, the social context was mentioned in particular, such as friends taking one to sports or on a bike ride. Furthermore, daily reminders or messages, as well as fixed course times were mentioned. The primary target group and the experts also considered it important to set small goals to be achieved and to make successes visible.

5. Conclusion

App

For the app, personalized and adaptable to every user is important because the goals, health situations, and motivation could be very different individually. In order to achieve this, one of the possible solutions is to have every user fill in a survey to understand their needs and health history beforehand, so that the app could display the information and lessons that best match their condition. To keep users motivated, creating training entries in the calendar when they choose the lessons and giving motivational messages and notifications could be very helpful. Furthermore, because people have different exercise experiences, the lessons should also have different degrees of intensity for people to choose from.

Lacking confidence is one of the attitudes participants had towards exercise, therefore, adding the community feature could be a potential solution. For example, creating a forum to discuss and talk about the training sessions and to exchange their knowledge and experiences, holding a competition to encourage them to participate more sessions, and having frequent meetups in the local park or cafe to boost their relationships are all good for them to build the connection between each other and to see what they can actually achieve.

It is undeniably important that the app provides a clear and simple user interface and technical support. Immediate support from people who can guide them through the entire journey and help them when needed would be desirable.

Learning platform

Regarding the learning platform, making it open and accessible to everyone who is interested is very crucial. By achieving that, easy-to-use is one of the top priorities the learning platform needs to focus on. The orientation and registration on the learning platform should be very clear and simple, so that every user knows how and where to log-in and find what they want. Through the easy instruction of the platform, users should know what materials they need, how the offers are structured, and how to set up lessons.

With regard to motivating older persons, it can be said overall that many of the persons from the primary target group do not really have an idea of strategies or methods. Clearly, incentives could be mentioned, such as daily reminders or the social context, but real strategies were not mentioned by any person from the primary target group and also by the experts. Accordingly, education and guidance for implementation regarding such strategies should be the top priority in our project.

It is undeniably important for the app to have a clear and simple user interface and technical support. Instant support by human beings might be unpractical but is feasible from a chat robot which could guide them through the whole journey and assist them when it's needed.

Based on the feedback, making the training lessons hybrid is the most doable way. Those who want to exercise together could meet up, while those who want to stay in could also complete the lessons alone.