Beyond screening: tailoring physical activity options with the EASY tool

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ABSTRACT

The development and dissemination of the EASY tool provides a resource to facilitate access to information about physical activity for older adults, particularly with regard to specific physical activity recommendations for individuals with chronic medical conditions. Health care providers and older adults can use the EASY tool to provide a flexible, tailored approach to screening. This approach will better inform both older adults and their health care providers about safe physical activity programs with appropriate injury management strategies. The identification of a broad range of activities appropriate for different health circumstances and situations will enable a greater number of older adults to engage in physical activity/exercises that will improve their health and functioning.

KEYWORDS

Physical Activity, Exercise, Screening

BACKGROUND

In recent years, public health experts have paid considerable attention to the adverse impact of stringent preexercise screening protocols throughout the physical activity and health professions [1, 3]. There is a growing concern that mandatory, medically based screening procedures may be a barrier to participation in physical activity, and many believe that the time has come to reexamine the basis for these protocols [5]. Recently, the US Physical Activity Guidelines for Americans recommended against the use of mandatory exercise stress tests for the screening of low-risk, asymptomatic individuals prior to starting a physical activity program [8]. Resnick and her colleagues [5] have questioned the value of both preexercise stress tests and preenrollment symptom checklist screening questionnaires. Instead, they argue that there is an urgent need to develop a more nuanced approach that is able to help older adults select individualized physical activity options tailored to meet their personal needs and preferences [5].

The two most frequently used preenrollment screening procedures are: (1) a physical examination by a physician or allied health professional (with or without an exercise stress test) and (2) completion of a physical activity readiness questionnaire that consists

Implications

Researchers: Rigid preenrollment medical screening procedures in physical activity and exercise studies are not supported by the research evidence and are no longer needed.

Practitioners: Health care providers and older adults can use the EASY tool to provide a flexible, tailored approach to screening; this approach will better inform both older adults and their health care providers about safe physical activity programs with appropriate injury management strategies.

Policy makers: Recently, the US Physical Activity Guidelines for Americans recommended against the use of mandatory exercise stress tests for the screening of low-risk, asymptomatic individuals prior to starting a physical activity program. Instead, there is an urgent need to develop a more nuanced approach that is able to help older adults select individualized physical activity options tailored to meet their personal needs and preferences.

of a symptom checklist. The most common justifications given for the use of these procedures are as follows: (1) the need to ensure the safety of participants, (2) the need to provide legal protection to organizations, facilities, and fitness/wellness professionals, and (3) the desire to help participants develop effective, individualized activity programs. Unfortunately, there is little compelling evidence that either physical examinations or symptom checklists achieve any of the above goals.

It is now well established that cardiovascular events, in response to physical activity, are both rare and unpredictable. Neither stress tests nor screening instruments such as the revised Physical Activity Readiness Questionnaire (rPAR-Q) effectively identify the extremely small subset of individuals at risk for serious adverse medical events [3, 7]. Furthermore, both stress tests and preactivity questionnaires produce unacceptably high false-positive results that often place unwarranted psychological stress on those required to take them. The financial cost and time burden associated with

testing often create a barrier for older adults struggling to motivate themselves to be active, discouraging their participation. Instead of its intended effect, preenrollment medical screening may produce the reverse result: namely, a reduction in the number of regularly active individuals and an accompanying increase in people at risk for cardiovascular disease and other inactivity-related disorders [5].

To date, screening protocols have concentrated almost exclusively on predicting cardiovascular events during physical activity. This focus is unfortunate, since by far the most common setbacks experienced by older adults are relatively mild musculoskeletal injuries. These injuries are usually the result of unwise exercise technique, inappropriate exercise modalities, or over enthusiasm in the early stages of a program. Customized physical activity preparedness plans would be of far more value to these individuals than the predominant cardiovascular symptom checklist approach. Personalized physical activity plans provide people with tips and techniques for safely initiating exercise and increasing activity levels. They also match individuals with exercise programs that will optimize their function, physical ability, and quality of life.

A compelling need exists to develop procedures and protocols that help sedentary older adults create plans for evolving a physically active lifestyle. To provide the most benefit, activity regimens must be customized to an individual's medical and functional status, as well as his or her specific needs and preferences. The fitness and wellness industry pays too little attention to asking individuals who are contemplating physical activity about their personal goals, choices, and aspirations. Most older adults know that regular physical activity is important to a healthy lifestyle. However, knowing the importance of physical activity seldom motivates sedentary individuals to initiate and maintain an active lifestyle. A growing body of knowledge suggests that effective physical activity interventions should include principles of behavioral change [2]. By integrating a comprehensive behavioral management strategy into preactivity consultations, fitness and wellness professionals can maximize recruitment, increase motivation for exercise progression, and minimize attrition.

THE EXERCISE ASSESSMENT AND SCREENING FOR YOU (EASY) SCREENING PHILOSOPHY

The exercise assessment and screening for you (EASY) is a tool developed to help older individuals, their health care providers, and/or exercise professionals identify different types of exercise/physical activity regimens that can be tailored to meet the existing health conditions, illnesses, or disabilities of older adults. The EASY tool includes six screening questions that were developed based on an expert roundtable and follow-up panel

activities. The philosophy behind the EASY is that screening should be a dynamic process in which participants learn to appreciate the importance of engaging in regular exercise, attending to health changes, recognizing a full range of signs and symptoms that might indicate potentially harmful events, and becoming familiar with simple safety tips for initiating and progressively increasing physical activity patterns. Representing a paradigm shift from traditional screening approaches that focus on only the potential risks of exercising, this tool emphasizes the benefits of exercise/physical activity for all individuals.

Prior to the development of the EASY tool, the project team reviewed the literature regarding physical activity/exercise guidelines and the extent of adverse events associated with exercise interventions and different screening approaches in older adults. They also interviewed selected experts in the field and disseminated an annotated bibliography to key players. Researchers surveyed the procedures used to screen approximately 5,500 people at 11 different sites participating in the Behavior Change Consortium. The different populations and settings across the consortium sites provided an opportunity for the team to gather comprehensive data about the occurrence of adverse events due to exercise interventions and screenings. The Behavior Change Consortium study found no relationship between the presence and absence of preenrollment screening procedures and subsequent participant safety. Across all 11 sites, no serious cardiovascular events were reported, independent of screening practices or exercise interventions. The only injuries that did occur were relatively minor musculoskeletal injuries, emphasizing the need to tailor physical activity options in such a way as to reduce the risk of these injuries [4].

In March 2005, a roundtable discussion was held in Washington DC with 17 experts, including representatives from the Centers for Disease Control and Prevention, the American College of Sports Medicine, the American Council on Exercise, the American Heart Association, the National Institute on Aging, and the National Council on Aging. The meeting focused on new ways to encourage older Americans to engage in routine moderate-intensity activity without mandatory screening. The major conclusions from this meeting were as follows: (1) it is much more dangerous to be sedentary than active, (2) new tools are needed that focus on injury prevention and risk management to help professionals tailor activity programs to an individual's needs, and (3) fear of litigation is the primary reason why exercise program providers adhere to across-the-board screening, even without evidence that it keeps older adults safer.

Following the Washington DC consensus roundtable and a series of focus groups that explored older adults' perspectives on screening issues, a new internet-delivered EASY screening

tool was developed, tested, and implemented with support from the Robert Wood Johnson Foundation [6]. This new test used similar questions to assess physical activity readiness as the frequently used revised Physical Activity Readiness Questionnaire. However, there are profound differences between the EASY and rPAR-Q with respect to the advice they provide to older adults with regard to their physical activity options. The rPAR-Q involves only a single yes/no response to each item, and the individual either passes screening or does not. If the individual fails the screening process, he or she is required to see his or her health care provider prior to beginning a physical activity. Conversely, each question in the EASY protocol follows an algorithm such that the older adult and/or the health care provider is guided toward a listing of known and available physical activity programs that are effective and appropriate for a given concern. In addition, the EASY provides all respondents with a number of specific safety tips to follow prior to, during, and after physical activity. It is only in the event that the individual is experiencing an acute medical problem that has not been previously evaluated by a health care provider and that the individual is encouraged to see his or her provider prior to exercising. Although the EASY tool is designed primarily for internet application, a paper version of the tool is available for downloading and can be used in situations where internet access is not available. Each question in the EASY is addressed briefly below with a consideration given to the rationale for each question. For a detailed, user-friendly introduction to the tool, readers are encouraged to visit the EASY internet site [10] at <http://easyforyou.info/index.asp>. The information about the EASY tool questions is also available in the project final report [11] which can be accessed online along with additional details about the project at www.rwjf.org/reports/grr/046841.htm?gsa=1/.

EASY question 1: Do you have pains, tightness, or pressure in your chest during physical activity (walking, climbing stairs, household chores, similar activities)?

The purpose of this question is to help older adults identify acute cardiac problems that might result in cardiac stress if an aerobic exercise activity were initiated. Although cardiovascular events in response to physical activity are both rare and unpredictable, this question allows the individual and his or her provider to pursue a more comprehensive assessment of the symptoms, particularly newly identified ones, as indicated and to select or develop an appropriate exercise program using safety tips as described. The individual can set goals that are relevant to underlying cardiac disease (such as lowering blood pressure) and initiate an exercise program tailored toward achieving them.

EASY question 2: Do you currently experience dizziness or lightheadedness?

The purpose of this question is to help the individual and his/her provider address dizziness which may result from a variety of underlying medical problems, such as vertigo, cardiovascular problems, and metabolic problems such as high or low blood sugar, visual impairment, or poor medication management.

Question 3: Have you ever been told that you have high blood pressure?

This question is meant to encourage regular blood pressure monitoring among older individuals. Individuals who answer yes to this question will be directed to other portions of the assessment, where they will be encouraged to work with health care providers to optimize the treatment. They will also be able to link to appropriate exercise interventions that will improve both systolic and diastolic pressure.

Question 4: Do you have pain, stiffness, or swelling that limits or prevents you from doing what you want or need to do?

The intent of this question is to help older adults and their health care providers identify acute exacerbations of underlying musculoskeletal problems and to consider the presence of chronic musculoskeletal problems so that the individual's exercise program will be appropriate.

Question 5: Do you fall, feel unsteady, or use an assistive device while standing or walking?

This screening question focuses on possible balance concerns and the safety of older individuals during their physical activities. Falls and fear of having a fall are common problems in older adults.

Question 6: Is there a reason not mentioned why you would be concerned about starting an exercise program?

This question is included to encourage individuals to report additional symptoms that might influence their ability and willingness to exercise. For example, some individuals may be concerned about exercising because of urinary incontinence.

USING THE EASY SCREENING TOOL

Each of the EASY screening questions is followed by a decision tree that guides the individual completing the measure through a variety of options. For example, the first question differentiates whether or not the cardiac symptoms experienced are new or if they had previously been evaluated. If the individual is experiencing a new symptom, the individual is encouraged to check with his or her primary health care provider to determine if there is any reason he or she cannot be physically active. If it is not a new problem and the individual has

previously had the problem evaluated and told that there is no reason that he or she cannot be physically active, then he or she can begin exercising and will be linked to the recommended physical activity programs likely to benefit older adults with a history of cardiovascular disease and the safety tips to use when exercising.

Older adults can complete the questions within the EASY independently or with the help of their primary health care provider, an exercise trainer or group exercise leader. Ideally, the EASY tool will be used as part of a broader conversation in which an older adult discusses physical activity options and choices with a health professional. The DHHS has developed a “be active your way” guide that provides a framework to assist members of the public to select physical activities that meet their personal needs and preferences [9]. Before beginning an exercise or physical activity program, the be active your way guide recommends that older adults first focus on identifying a personally meaningful motive for increasing their activity levels. Among the possible reasons identified for increasing physical activity are: be healthier, feel better about myself, help me stay at or get to a healthy weight, be with friends or meet new people, and enjoy myself and have fun.

Within the be active your way framework, individuals, about to embark on a physical activity program, are encouraged to think about reasons why they have not been physically active in the past and to try to develop strategies for overcoming these barriers. The be active your way guide encourages people who have been sedentary for many years to choose something they already like to do and to try to build a physical activity component into the activity. For example, many people like to go shopping or to attend dances and other social events. By increasing the time they spend walking (or dancing), they can gradually combine their fun activity with a healthy dose of physical activity. When used in conjunction with the EASY tool, the be active your way guide can help an individual to identify physical activities that they like to do, that they can relate to, and which they can perform safely with low risk of injury.

CONCLUSION AND NEXT STEPS

The development of the EASY screening tool was recommended by participants attending a Roundtable Meeting on the Role of Pre-Activity Participation Screening in Older Adults held in March 2005, in Washington DC (see www.rwjf.org/reports/grr/046841.htm?gsa=1). Several multidisciplinary experts worked together to translate existing science into this practical tool that could be used by health care providers, older adults, and physical activity program managers. The EASY is endorsed by the American Medical Directors Association, the American Geriatrics Association, the Gerontological

Advanced Practice Nurses Association, and the American College of Sports Medicine. It is currently being used for screening in programs supported by aging organizations such as the American Association of Retired Persons, in the Texas Falls Prevention Program, and in community-based programs in senior housing and senior centers across the country. The EASY is also frequently used in research-focused exercise intervention studies.

The development and dissemination of the EASY tool provides a resource to facilitate access to information about physical activity for older adults, particularly with regard to specific physical activity recommendations for individuals with chronic medical conditions. Health care providers and older adults can easily access the tool online or use the printable version of this tool. The EASY tool gives health care providers a short, practical, flexible, and tailored approach to screening. This approach will better inform both older adults and their health care providers about safe physical activity programs with appropriate injury management strategies. The identification of a broad range of activities appropriate for different health circumstances and situations will enable a greater number of older adults to engage in physical activity/exercises that will improve their health and functioning.

It is important to note that the development of the EASY tool is a work in progress and additional work is needed to assess factors related to the implementation of the tool, particularly regarding the degree to which the online format is accessible to older adults. We do, however, believe that the tool, even in its present format, provides a better option for community-based programs than the traditional exercise readiness questionnaires that simply “screen out” individuals rather than provide a specific, tailored exercise advice. Unfortunately, in the development of the EASY, there were insufficient resources to make this an interactive webpage. Ultimately, the goal is for older adults to be able to store their exercise calendars (i.e., how much time they spend in specific exercise, such as swimming) online within the EASY webpage as this can serve as a source of motivation for some individuals. Additional research is needed in the dissemination and use of the EASY tool as a motivational tool and with regard to safety. There is currently ongoing work in this area.

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