

STUMBLING BLOCKS

Identifying and Overcoming Older
Adults' Barriers to Physical Activity

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ISSUE IN FOCUS

Understanding why more than half of older adults do not meet recommended activity levels... requires identifying the barriers that are keeping them from being more physically active.

In relation to health and wellness, the value of physical activity cannot be overstated. Staying physically active is associated with reduced risk of heart disease, stroke, type 2 diabetes, and certain forms of cancer; greater longevity, mobility, and cognitive function (US Department of Health and Human Services, 2008); and can even result in greater happiness (Zhang & Chen, 2019). In addition, development of health conditions due to inadequate physical activity is estimated to account for about 11% of health care spending in the US (Carlson, Fulton, Pratt, Yang, & Adams, 2015). In short, physical activity helps individuals of all ages feel better and live longer. Then why do only 54% of Americans meet daily recommendations for physical activity (CDC, 2020)? And for those age 65 to 74, this drops to 43% and continues to decline for older age groups (Gorina, 2016).

Understanding why more than half of older adults do not meet recommended activity levels—despite the numerous health benefits—requires identifying the barriers that are keeping them from being more physically active. Because environmental barriers, such as walkability of one's neighborhood or availability of recreational facilities, are difficult to address at the individual level, this paper will focus on barriers related to older adults' beliefs regarding physical activity, individual physical ability, and psychosocial factors.

The environment of a senior living community is more controllable than the surrounding community, so having an understanding of these barriers will be particularly useful to senior living providers. Wellness directors can use this information to devote attention to identifying what may be preventing residents from being more active and adapting residents' environment to be conducive to physical activity.



BELIEF & PREFERENCE BARRIERS

LOW AWARENESS

The first step to being more physically active is often just being aware of how active one should be and of what programs are available. For example, among older adults eligible for membership in a free or low-cost fitness program, the most commonly reported barrier to joining was a lack of awareness of the program (Bethancourt, Rosenberg, Beatty, & Arterburn, 2014). It may seem obvious that being unaware of a program would prevent someone from joining, but does raising awareness actually improve participation? This appears to be the case, as one of the most common motivators for joining a physical activity program is having received marketing materials about the program (Biedenweg et al., 2014). While cost and proximity are considerations for community-dwelling older adults, programs within a senior living



community are generally easy for residents to access, so the first step in getting residents engaged is to utilize information-sharing systems (e.g., community calendars) to provide an accurate program description.

LACK OF KNOWLEDGE

Older adults also report a lack of knowledge about appropriate exercise or lack of instruction from their doctor as barriers to physical activity (Dobson et al., 2016; Dohrn, Ståhle, & Roaldsen, 2015). In fact, physicians may be less likely to recommend exercise to older adults than to those in middle age. In a study of over 30,000 middle-age and older adults diagnosed with arthritis, researchers found that physicians were less likely to recommend physical activity to older adults to help manage this condition, compared to patients age 45 to 64 (Austin, Qu, & Shewchuk, 2013). Low-income older adults were even less likely to receive the recommendation.

Improving knowledge, on the other hand, has been shown to improve physical activity levels in older adults. In one example, an active learning intervention helped Japanese older adults enhance their knowledge of how to live healthy lives through training sessions and homework assignments on topics such as options for exercising indoors when the weather is poor, resistance training, knowledge of malnutrition, intellectual training, and other health-related topics. This was shown to significantly improve per-day step count, physical activity level, and physical function, in addition to improvements in health literacy, cognitive function, and diet, compared to a control group that did not participate in the active learning intervention (Uemura, Yamada, & Okamoto, 2018). This parallels research in younger adults that suggests the most effective physical activity interventions are those that provide information and instruction for physical activity, as well as opportunities to practice the activity (Bull et al., 2018).



... there are options other than going to the gym to make exercise more enjoyable, such as dancing, walking with friends, or even pickleball.

Based on this evidence, there are likely residents who would otherwise enjoy or at least be motivated to participate in more programs, but they lack the right knowledge of how to exercise safely and effectively. Offering training or health information sessions to new residents and providing extra instruction to residents who are just beginning an activity program may be one solution. Providing timely information about alternative activity options may be another solution for residents who are undergoing age-related changes. In addition, older adults can access numerous virtual resources with nothing more than an internet-connected computer or smartphone. Online health literacy classes may be an option to help older adults start on a physical activity program and learn appropriate exercises, all from their own home.

PERSONAL PREFERENCES

Structured exercise, such as working out at a gym or running on a treadmill, is not for everyone, so a dislike of exercise just for the sake of exercise is not uncommon. Not surprisingly then, some older adults cite a lack of motivation or a dislike of structured exercise as barriers to physical activity (Bethancourt et al., 2014; Dobson et al., 2016; Dohrn et al., 2015). Furthermore, most older adults report that enjoyment of the activity is the main reason they engage in physical activity, while any other type of benefit is secondary (Kosteli, Williams, & Cumming, 2016). In one example of an intervention to make exercise more enjoyable through gamification (in which participants work toward quests/goals, complete daily challenges, and earn points and badges), older adults in the gamified group reported greater engagement, motivation, and enjoyment in physical activity, compared to a group that only used a fitness tracker (Kappen, Mirza-Babaei, & Nacke, 2018). However, the sample size in this study was small, so further research is needed. Although dislike of exercise or low enjoyment are significant barriers to physical activity, there are options other than going to the gym to make exercise more enjoyable, such as dancing, walking with friends, or even pickleball.



Active older adults tend to be mindful of the positive experiences associated with being active, so there is potential for encouraging inactive older adults to do the same. For example, interviews with active older adults revealed they tend to associate exercise with enjoying the sights and smells of being outdoors, feeling the wind rush by (or water when swimming), or the feeling of flow (Phoenix & Orr, 2014). Similarly, interviews of a small sample of older rock climbers and kayakers suggested that these adventurers savor this type of serious leisure activity and reflect on their accomplishments to prolong the positive feelings associated with physical activity (Hickman, Stokes, Gammon, Beard, & Inkster, 2016). In a study of a slightly younger sample of adults (average age 50) who exercise at a YMCA facility, those who had a higher ability to focus on the present and actively attend to personal experiences were more likely to maintain continuous physical activity throughout the year (Ulmer, Stetson, & Salmon, 2010). Future research may focus on how encouraging inactive older adults to be more attentive to the positive experiences of physical activity can help in reducing barriers.

While finding activities that residents enjoy is important, there is also potential to help them learn to like exercise by focusing on positive experiences and sensations in the moment, and reflecting on these feelings afterward. There is also opportunity to add a virtual component to a physical activity plan. Smartphone applications can use gamification to make exercise more interactive by helping users track goals and earn virtual rewards or medals.

PHYSICAL ABILITY BARRIERS

...almost a third of assisted living residents have a fear of falling when using community outdoor areas.

RISK OF INJURY

Perceptions that there is a potential for injury when exercising is another consideration older adults take into account. Studies have shown that a fear of injury or a fear of falling is often reported as a barrier to physical activity (Bethancourt et al., 2014; Cousins, 2000; Franco et al., 2015). In another study that used activity trackers to monitor participants' activity levels, older adults who reported a high fear of falling recorded fewer steps per day and engaged in less low, moderate, or vigorous physical activity compared to those with a low fear of falling (Sawa et al., 2018). Fear of injury can even be exacerbated by having a mobility limitation—older adults who have a mobility limitation are significantly more likely than those without a limitation to report a fear of falling, injury, or negative experiences as barriers to physical activity (Rasinaho, Hirvensalo, Leinonen, Lintunen, & Rantanen, 2007). Often, one of the reasons older adults move to a senior living community is out of concern for their health, so this barrier may be particularly relevant in these communities. In support of this, research suggests that almost a third of assisted living residents have a fear of falling when using community outdoor areas (Lee, Lee, & Rodiek, 2019). Even though these environments can be very safe, the perception that there is a risk of injury from exercising is important to address.



...older adults report that they are motivated to exercise in order to avoid developing mobility limitations.

CHRONIC CONDITIONS AND MOBILITY LIMITATIONS

Increased fatigability, frailty, pain, and disablement can present significant barriers to activity. Older adults often report that chronic ailments, aches and pains, extended recovery time, and overall poor health can make it difficult to be physically active (Bethancourt, et al., 2014; Biedenweg et al., 2014; Rasinaho et al., 2007). Likewise, for those living with chronic conditions such as rheumatoid arthritis or hip or knee osteoarthritis, the resulting pain, stiffness, and fatigue can become significant barriers (Dobson et al., 2016; van Zanten et al., 2015). And perhaps not surprisingly, those with mobility limitations tend to be less physically active than those without limitations (Rasinaho et al., 2007). Not only can these symptoms make it more difficult to exercise, but older adults may also fear exercise will exacerbate the symptoms.

While some people see physical limitations and chronic conditions as risks or barriers, others view these as motivators to being active. For example, some older adults report that they are motivated to exercise in order to avoid developing mobility limitations, or even as a way to manage pain or other conditions (Bethancourt et al., 2014; Franco et al., 2015). Additionally, managing health and conditions like osteoarthritis are important motivators to stay physically active for many older women (Dohrn et al., 2016). Reframing physical activity as a facilitator of function rather than a barrier to overcome may encourage senior living residents to exercise more.

PSYCHOSOCIAL BARRIERS

...older adults who report less positive perceptions of aging tend to be less physically active.

LOW SELF-EFFICACY

One of the primary psychosocial barriers to physical activity is having low self-efficacy (or confidence in one's ability) for exercise. Low self-efficacy is directly related to low levels of physical activity in older adults (White, Wójcicki, & McAuley, 2011) and is related to having lower outcome expectations (e.g., perceiving fewer health benefits of exercise) and setting fewer fitness goals, which in turn reduces the likelihood that older adults will be active (Anderson, Wojcik, Winett, & Williams, 2006; Ayotte, Margrett, & Hicks-Patrick, 2010). However, older adults are able to improve their self-efficacy over time, which leads to more engagement in physical activity (McAuley et al., 2007; White et al., 2011). There are a variety of interventions to improve self-efficacy, but caution is needed before implementing, since research suggests that techniques used for younger adults are not as effective for older adults, possibly due to differing priorities and lifestyles or cognitive decline (French, Olander, Chisholm, & McSharry, 2014). More research is needed to identify the most effective strategies to improve self-efficacy in older adults.

NEGATIVE PERCEPTIONS OF AGING

Having a less positive view of aging may deter older adults from engaging in physical activity. These people may be more likely to believe decline in physical function is an inevitable part of aging and that exercise would do little to change this. Research has shown that older adults who report less positive perceptions of aging tend to be less physically active (Sarkisian, Prohaska, Wong, Hirsch, & Mangione, 2005), participate in fewer sports and walk less (Wurm, Tomasik, & Tesch-Römer, 2010), and engage in

...improvements in positive perceptions of aging are associated with increases in weekly physical activity.

less strenuous activity (Meisner, Weir, & Baker, 2013). One study found differences according to gender; less positive views on aging were related to less physical activity in older women but not for men (Andrews et al., 2017).

On the bright side, older adults who develop more positive perceptions of aging over time tend to become more physically active (Beyer, Wolff, Warner, Schüz, & Wurm, 2015). Additionally, interventions that target perceptions of aging have shown that improvements in positive perceptions of aging are associated with increases in weekly physical activity (Wolff, Warner, Ziegelmann, & Wurm, 2014), as well as taking more steps per week among sedentary older adults (Sarkisian, Prohaska, Davis, & Weiner, 2007). There is even evidence that perceptions of aging improve after older adults complete a physical activity intervention (Klusmann, Evers, Schwarzer, & Heuser, 2012), suggesting a potential upward spiral effect.

PERCEIVED NORMS

A youth-focused culture and widely held negative stereotypes of older adults may also discourage older adults from being more physically active. For example, older women recognize the societal pressures to stay sedentary, such as through the overabundance of seated activities offered for older adults and encouragement from family and friends to remain seated rather than being active (Chastin, Fitzpatrick, Andrews, & DiCroce, 2014). In a study of 18 women with osteoporosis, participants reported that family members sometimes discouraged them from physical activity, mostly out of concern for their well-being (Dohrn et al., 2016). Similarly, while current norms generally encourage exercise, older adults may have experienced a different norm for much of their lives and have not been able to break that habit. For example, some older women report that when they were younger, it was expected that girls should not exercise (Bethancourt et al., 2014).

Many older adults report that what motivates them to be active is the social interaction aspect of group exercise.

However, perceived norms can have the opposite effect as well. Seeing one's peers staying active can be very influential. For example, having a spouse who consistently engages in or improves their physical activity can lead to improvements in one's own physical activity (Jackson, Steptoe, & Wardle, 2015). Additionally, older adults with greater social capital (i.e., larger social networks, more friends, and more participation in social groups) tend to be more physically active, as measured by an activity tracker, compared to older adults with low social capital (Ho, Hawkey, Dale, Waite, & Huisingh-Scheetz, 2018). In senior living, initial evidence suggests that residents living in a community that has a more developed culture of wellness engage in more physical activity (O'Brien, Smith, Bihary, O'Connor, & Basic, 2019).

LACK OF SOCIAL INTERACTION

For older adults, having a workout partner is much more than just having someone to provide motivation; it's a valuable opportunity for social interaction. Many older adults report that what motivates them to be active is the social interaction aspect of group exercise (Bethancourt et al., 2014), and this is a common finding among studies investigating physical activity in older adults (Franco et al., 2015). Even having a larger network of friends is associated with greater physical activity (Watt et al., 2014). While social interaction can serve as a motivational component, some older adults specifically identify not having an exercise partner as a barrier to being active (Kosteli et al., 2016), and this is particularly true for older adults with mobility limitations (Rasinaho et al., 2007). One explanation for this finding is the shift in priorities as one grows older. Although they recognize that support from friends and family is helpful, younger adults tend to view exercise as a solitary activity. Older adults, on the other hand, tend to view exercise as a meaningful opportunity for social interaction (Steltenpohl, Shuster, Peist, Pham, & Mikels, 2018). At this point in life, older adults tend to focus less on being physically fit and more on staying connected.



While older adults may prefer in-person social interaction, using social media to share workouts, achievements, and activity data means that even solitary workouts can have a social component. Video calling technologies make it possible to exercise with anyone in the world at any time. Connecting for a home-workout over video could be a great way for residents to stay in touch with friends outside the community. Even live virtual group training sessions can add a social component to a workout.

LONELINESS

Longitudinal studies have suggested that greater loneliness is associated with higher odds of being physically inactive two to three years later (Hawkley, Thisted, & Cacioppo, 2009; Luo & Waite, 2014). A recent review of similar studies suggested that the association between loneliness and physical activity may be stronger for women than men, but that more work needs to be done to support the overall association of loneliness and physical activity (Smith, Banting, Eime, O’Sullivan, & Van Uffelen, 2017). One of the more recent investigations found that social isolation, but not loneliness, was associated with less daily physical activity and more sedentary time for older adults (Schrempft, Jackowska, Hamer, & Steptoe, 2019), so more research is needed before drawing conclusions on this topic.

SOCIAL ANXIETY

While many older adults enjoy the social aspect of physical activity, some have expressed a concern over social awkwardness in group settings. Being unfamiliar with other group members and worrying that they do not fit in are occasionally reported as barriers to physical activity (Biedenweg et al., 2014; Franco et al., 2015). Even the atmosphere of the typical gym can be intimidating, and older adults sometimes feel judged by others in this environment (Bethancourt et al., 2014; Cousins, 2000). Similarly, having a poor self-image in comparison to younger or more fit gym-goers

can be a barrier to being physically active (Dobson et al., 2016; Kosteli et al., 2016), and at least one study suggests this may be more common among older men, as physical strength (which declines with age) is associated with masculinity (Baker & Gringart, 2009). Compared to other barriers, however, having a poor self-image is typically reported by a small proportion of older adults and is not consistent across cultures; it is more common for European Americans than for Mexican Americans (Dergance et al., 2003). In senior living settings, where residents primarily exercise with their peers, social anxiety may be an even less common barrier, but more research will need to confirm this.

Finding ways to make physical activity more enriching will be important to help older adults become more self-motivated to be active.

DELAYED GRATIFICATION

Many of the health benefits from physical activity aren't noticeable after one workout session, and others, like prevention of mobility limitations, can be difficult to identify at all. Adults vary in their ability to delay gratification from activities or rewards, and this could be one reason some older adults do not engage in physical activity. One study found that older adults who tend to prefer immediate over delayed rewards (e.g., receiving \$5 now vs \$50 a week later) are less likely to engage in vigorous physical activity (Tate, Tsai, Landes, Rettiganti, & Lefler, 2015). These older adults perceive lower value in future rewards, and thus may not recognize the long-term benefits of physical activity. However, certain immediate rewards may act as barriers also. For example, some research suggests that offering a financial incentive may deter older adults from joining a physical activity program (Tambor, Pavlova, Golinowska, Arsenijevic, & Groot, 2016). Finding ways to make physical activity more enriching will be important to help older adults become more self-motivated to be active.



The presence of one barrier can even result in additional barriers.

INTERACTION BETWEEN BARRIERS

Some older adults may appear to face few barriers to physical activity, but there are situations where one or two barriers may negate the positive influences of other factors. One example comes from a study of older adults who live in neighborhoods where it is either easy or difficult to walk from place to place. Social support is typically beneficial for physical activity, but this study found that when neighborhood walkability was low, older adults tended to have low levels of moderate-to-vigorous physical activity even when social support was high. In highly walkable neighborhoods, however, older adults were more likely to be active in general, but high social support improved activity levels even more (Carlson et al., 2012). This study also found a similar pattern for low walkability limiting the beneficial effects of self-efficacy.

Another study found a similar interaction between social support and self-efficacy. Having a lot of support from family or friends to exercise helped to boost the effects of self-efficacy, but having no support tended to deter older adults from exercise even when they reported high self-efficacy (Warner, Ziegelmann, Schüz, Wurm, & Schwarzer, 2011).

The presence of one barrier can even result in additional barriers. For example, older adults living with chronic conditions tend to also face barriers related to a lack of knowledge about how to exercise safely with the condition, poor self-image, and low optimism (Dobson et al., 2016). Similarly, older adults with mobility limitations are not only less physically active than those with moderate or no mobility issues, but are also more likely to report poor health, fear of negative experiences, unsuitable environment, and lack of company as barriers to exercise (Rasinaho et al., 2007). Although it can be difficult to account for every barrier an older adult may face, having a better understanding of how barriers are interrelated is important for developing a plan to reduce barriers. While it may be difficult to alter chronic conditions or mobility issues, targeting related barriers may help to reduce the overall impact of these conditions.

CONCLUSION

Concentrating on making fitness a norm for people of all ages will also help older adults stay active or give them the confidence to become active.

Older adults face numerous barriers to being more physically active. Some, like physical limitations, are difficult to change, while others such as social anxiety or perceptions of aging seem more fluid. In either case, the first step is enhancing older adults' knowledge of available programming and providing education on how to stay active when living with chronic conditions or mobility limitations. Residents of senior living communities are likely kept up to date with program offerings throughout the community, but they may benefit from more focus on health literacy and education about how to exercise safely. This also ties in with improving self-efficacy and perceptions of aging, which are key in helping residents believe they can be active and that getting older doesn't necessarily mean slowing down. Even framing physical activity as a strategy to prevent or manage health conditions can be helpful.

Concentrating on making fitness a norm for people of all ages will also help older adults stay active or give them the confidence to become active. Considering the strong connection between social interaction and physical activity, senior living environments have an advantage in this area and should take every opportunity to blend social and physical activities. Virtual exercise sessions can even be used to connect to adults outside the community or when in-person sessions are not feasible.

Individual differences in ability and preferences for exercise should not be ignored. Even residents' personalities can play a role. For example, among independent living residents, those who scored higher in extraversion and conscientiousness and lower in neuroticism were more physically active (Artese, Ehley, Sutin, & Terracciano, 2018). While personality generally does not change, recognizing those residents who may be more reluctant to exercise may be helpful in finding the right activity for them.



Similarly, finding ways to enhance enjoyment in physical activity is very important, potentially through offering alternatives to structured exercise or helping residents identify the positive experiences associated with exercise.

While barriers and motivators to physical activity have been heavily researched, there are still many unanswered questions. Most research focuses on community-dwelling older adults, and in many cases, it is unclear if findings apply to senior living residents in the same way. Additionally, most healthy aging interventions only focus on one domain of behavior and only recruit older adults with few health conditions (Lachman, Lipsitz, Lubben, Castaneda-Sceppa, & Jette, 2018). Among interventions that do focus on more than one dimension of wellness, most are limited to adults under age 80 and many are not high-quality research (Seah et al., 2018). Future research will need to address these limitations, investigate other barriers to physical activity, and work to translate findings about younger adults into applications in older adult populations. One promising investigation is the Age Well Study, a five-year longitudinal study of Life Plan Community residents' well-being, which collected data on six of the most common barriers to physical activity with the aim of better understanding how these barriers apply to senior living residents (Mather Institute, 2019).

RECOMMENDATIONS AND TAKEAWAYS

1. **GET THE WORD OUT:** Residents won't join a program if they don't know about it.
2. **ENHANCE KNOWLEDGE:** Make sure residents know what options are safe for them to do and give extra attention to teaching them how to exercise. Be sure instructors are knowledgeable.
3. **GET CREATIVE:** Add unique components to structured exercise programs to make them more engaging and offer alternative activities.
4. **GET SOCIAL:** Offer group activities whenever possible and incorporate opportunities to socialize or engage in friendly competition. Make extra effort to welcome and integrate new or prospective members into the group.
5. **LEARN TO LOVE EXERCISE:** Encourage residents to reflect on the positive experiences of a physical activity session. This helps to make exercise more immediately rewarding and encourage future participation.
6. **ELIMINATE IMPOSSIBILITIES:** Promote exercise as a way to prevent or manage chronic conditions or physical limitations, rather than as a source of pain or potential injury.
7. **BUILD CONFIDENCE:** Improve self-efficacy by identifying strategies to reduce barriers, building social support, and setting graded tasks.
8. **ALTER PERCEPTIONS OF AGING:** Having a more positive outlook on aging helps to have a more positive outlook on one's physical capabilities.
9. **SET THE NORM:** Address residents' backgrounds and promote a culture of fit and active older adults.

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