

The Effects of Physical Activity on Healthy Aging: A Reflective Paper

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HKIN 357: Aging and Exercise

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April 5th, 2019

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There is no amount of physical activity that can reverse or prevent the aging process from occurring however, exercise and physical activity can slow this inevitable process (Chodzko-Zajko, et al., 2009). Individuals can experience the extensive benefits that physical activity has on the mind and body despite any age. With regards to an older population some of the benefits older adults may experience from physical activity can include mental, physical, and medical benefits. For example if an older adult was to participate in physical activity they can reduce the risk of developing anxiety, depression as well as improve upon their mood and positive mind set (Physical Activity and Health: A Report of the Surgeon General , 1999). Some of the physical benefits that one may experience is the maintenance of healthy bones and joints. Maintaining healthy bones and joints can decrease pain and reduce the risk of suffering from arthritis and other joint and bone problems (Physical Activity and Health: A Report of the Surgeon General , 1999).

Engaging in regular physical activity can increase ones' ability to maintain a certain level of independence. Regular physical activity can drastically reduce the risk of falling, fractures, breaks and other balance related concerns, in return this gives older adults the option to remain in an unassisted living situation (Physical Activity and Health: A Report of the Surgeon General , 1999). According to Centers for Disease Control and Prevention (1999) those who engage in physical activity greatly reduce the risk of developing and dying from coronary heart disease, high blood pressure, many cancers as well as diabetes. All of these are just a handful of the extensive benefits physical activity can provide for older adults.

Personal Experience Training Adults Over 40

I was fortunate enough to have the opportunity to work at a fitness center (GLOW Fitness for Women), as a circuit coach during the 2018 summer. The fitness center that I worked at was an all-women gym with the majority (approximately eighty percent) of the cliental being over the age of forty-years old. GLOW Fitness for Women was focused more on safe physical activity for women. The fitness center was designed and set-up as a pre-set circuit workout that incorporated aerobic and strength training as well as flexibility and stretching. The circuit was designed to be completed in a thirty-minute time-

frame. It was designed in a circle formation and the clients were to complete this circle twice and then go to the stretching machine to finish their workout. The circle alternated between aerobic platforms and strength training machines. The aerobic and strength training aspect of the workout included eleven aerobic platforms and eleven strength machines. There was a variety of set playlists of music that were constantly playing at the gym. In the music there was a cue every thirty-second to change stations. As well as every seven or eight minutes there was a heart rate check, pause in the music. With the aerobic platforms, strength training machines and the heart rate breaks resulted in the workout being twenty-three minutes, leaving seven minutes or so for the individual to stretch to achieve thirty-minutes of physical activity. If an individual was to come to the gym five days per week, they would be hitting the recommended one-hundred fifty minutes of moderate-to-vigorous intensity physical activity per week according to the CSEP Canadian Physical Activity Guidelines. This workout also includes the recommendations of including bone and muscle strengthening activities, as well as it includes aspects of balance enhancements and it involves the aerobic physical activity aspect as well (CSEP).

Aerobic Physical Activity

The way in which aerobic physical activity was incorporated into this type of workout is through the use of aerobic platforms. These platforms were simple wooden platforms that had a foam and rubber bottom which allowed for these platforms to be gentler on joints. These platforms were used for the aerobic aspect of the workout, members would perform a variety of cardiovascular activities, whether that be jumping jacks, running on the spot, Zumba moves. From my view point as the circuit coach I saw the most variety and variability in the clients on these aerobic platforms, based on their goals as well as their physical capability. Those women who had any heart conditions whether that be a pace-maker, or any other cardiovascular heart condition I found them to be the ones who would use the platforms more so for a resting station, some would do a light march on the platform and some would even just stand there and perform a swaying motion. I was interested as to why there was such a variation and since each member was required to fill out a par-q form before joining the gym I was able to look up their files and investigate if there was a correlation between the aerobic platform activities and their cardiovascular

health status. It was evident that there was a strong correlation between having good cardiovascular health and performing higher-intensity activities on the aerobic platforms.

From my personal standpoint as being the circuit coach it was extremely beneficial for me to understand why certain members were able to perform higher intensity cardiovascular activities. I would have some members become discouraged because they would see others doing high intensity exercises on these platforms and they would feel as though they were not able to do the same, they felt very limited. But because I understood that there were other factors not just the physical fitness of the members but also age and cardiovascular health, I was able to tell the discouraged members that there were many variables that cause each member to perform differently specifically on the aerobic platforms.

Strength Training

Strength training is extremely beneficial for older adults. If an older adult was to engage in regular strength training, they are drastically reducing their risk for developing sarcopenia (Sallis, 2003). Sarcopenia is a resultant of the loss of muscle mass and strength that often occurs with age (Sallis, 2003). With the reduction of muscle mass and strength, this puts the older population at a higher risk for falls, which often leads to breaks and fractures. With an older chronological age there are many complications that can easily arise even from the smallest of falls. If an older adult was to engage in strength training they not only reduce the risk of suffering from sarcopenia, they also reduce the risk of osteoporosis, heart disease, arthritis, and type two diabetes (Sallis, 2003). My personal opinion is that if an older adult was able to reduce their chances of suffering from many of these diseases and challenges, they are able to maintain or even improve upon their quality of life.

The strength training that was incorporated into the circuit was through the use of hydraulic resistance machines. This meant that there was no actual weight that needed to be added, I think that this is an exceptional form of strength training for older adults. The fact that no weight plates were being used made many of them feel safer because they did not fear dropping the weight or even using too heavy of a weight where they could hurt or injure themselves. To make the workout more difficult and 'heavier' all a member would have to do is perform the exercise faster and with more force. Another benefit of these

hydraulic resistance machines was the fact that every machine engaged both antagonist and agonist muscles so, when pushing or performing the forward motion they would engage one muscle group and, on the way, back they were engaging the opposite muscle group. Due to the fact that a member was able to engage and work two muscle groups within one machine and essentially one exercise this allowed for an extremely efficient and time effective workout.

The other benefit that I noticed with a specific regard to the older population is that with the use of these machines they minimize the eccentric phase of the exercise. Although eccentric contractions allow for a greater muscle gain, they are the main cause of delayed onset muscle soreness (DOMS). Personally, when I experience DOMS, even though it can be painful and cause discomfort for a day or two I have never experienced it restricting any daily activities. However, when talking to some of the members the fact that they rarely if ever experienced muscle soreness was one of the major reasons they enjoyed this gym. When hearing this I started to ask many of the members if this was true for them as well, and when they all said yes; I quickly realized as to why this is such an incentive for them. When I began talking to these women about muscle soreness, I learned that for those of them that do suffer from diseases such as osteoporosis and arthritis simple daily tasks such as walking and brushing their teeth can be painful and uncomfortable enough. The last thing any of them want to do was to add another element of pain and discomfort in their muscles that they are self-administering. The fact that they did not experience this muscle soreness or if they did it was minimal and manageable, made the thought of working out and being physically active much easier.

Quality of Life

Earlier I stated some of the physical and medical benefits of physical activity such as some of the diseases and health concerns that can be reduced. If someone is able to reduce or prolong suffering from a health complication, they are often able to live a more individual and mobilizing life. Instead of being limited to a wheelchair or even being bed-ridden due to severe osteoporosis they are able to go outdoors and move around individually. Instead of making multiple doctor appointments in a month they are able

to make appointments with their friends and family. The most obvious benefit from participating in physical activity in these older adults was with regards to their quality of life.

I began asking the women what they enjoyed most in their personal lives since joining the gym and almost all of them said the increase in their quality of life. For some they told me that they feel much more capable in daily tasks, they feel a new level of freedom. Instead of constantly having to ask someone to help them do something that required a certain level of strength such as opening a jar they said they were able to do it no problem now. As well as many of them said they felt much safer. Many people are well aware of the fact that strength training increases muscular strength, but it can also improve ones' balance (Waehner, 2018). The increase in balance was a major benefit. Some had reported to me that because they feel they are able to balance better and have better coordination they feel strong enough to walk the stairs in their house. This is a major improvement upon one's life, it is easy to take something such as walking the stairs in your own home for granted. However, when you are confined to living your life in half of your house simply due to the fact that you do not feel safe to walk up and down stairs, that can drastically impact your quality of life.

Even for those women who had most of their mobility and freedom they still told me that their quality of life had drastically increased. They were able to spend more time with their children or grandchildren. They were able to actually play and participate in what their children or grandchildren were doing. The increase in their physical fitness allowed for them to have the stamina and strength to pick their grandchildren up, to get on the ground and play with them, to walk to the park with them. All of these little tasks that they were not able to do before engaging in regular physical activity at Glow. With the improvement upon these aspects of their lives they found a major improvement upon their mental health as well.

They said they were much happier and appreciative of their lives. One woman told me at the end of the summer that she said she is able to wake up every day happy and grateful that she is as healthy and mobile as she is. She said not only did her physical fitness improve incredibly but her mental health improved just as much. She takes every opportunity she gets to take advantage of these health

improvements. She goes to see her family and friends more often; she is more active in her daily life. Instead of sitting in a chair all day she will go for walks, and even do more active things in her house. This was just one of the stories that one woman told me, but it was just one of the many life improvement stories I heard from these women.

Conclusion

Being physically active at any age is beneficial but especially as we grow older. I was blessed with the opportunity to be a circuit coach at an all-women fitness center whose focus was to make fitness accessible for women of all ages and abilities. The circuit incorporated the recommended cardiovascular and strength training aspects. The way in which the gym was set up made it easy and intriguing for those of an older population. I was able to have a good relationship with many of these women and was able to track their improvements throughout the months I trained with them. Most of them were aware of the physical benefits they were expecting to experience. However, the main benefit I noticed as well as the members was the ways in which their quality of life had increased due to participating in regular physical activity. Many were able to do more activities individually without the fear of falling or injuring themselves as well as many reported being physically and mentally capable to play with their grandchildren as well as the rest of their family. I think that if we were to emphasize how physical activity can increase older adults' quality of life and present some of the examples I stated, we could see more of the older population being physically active.

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