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IKIGAI55 MOTIVATIONAL HANDBOOK

Smart Motivation Handbook & Toolkit.

Written by IKIGAI55 Project Partnership
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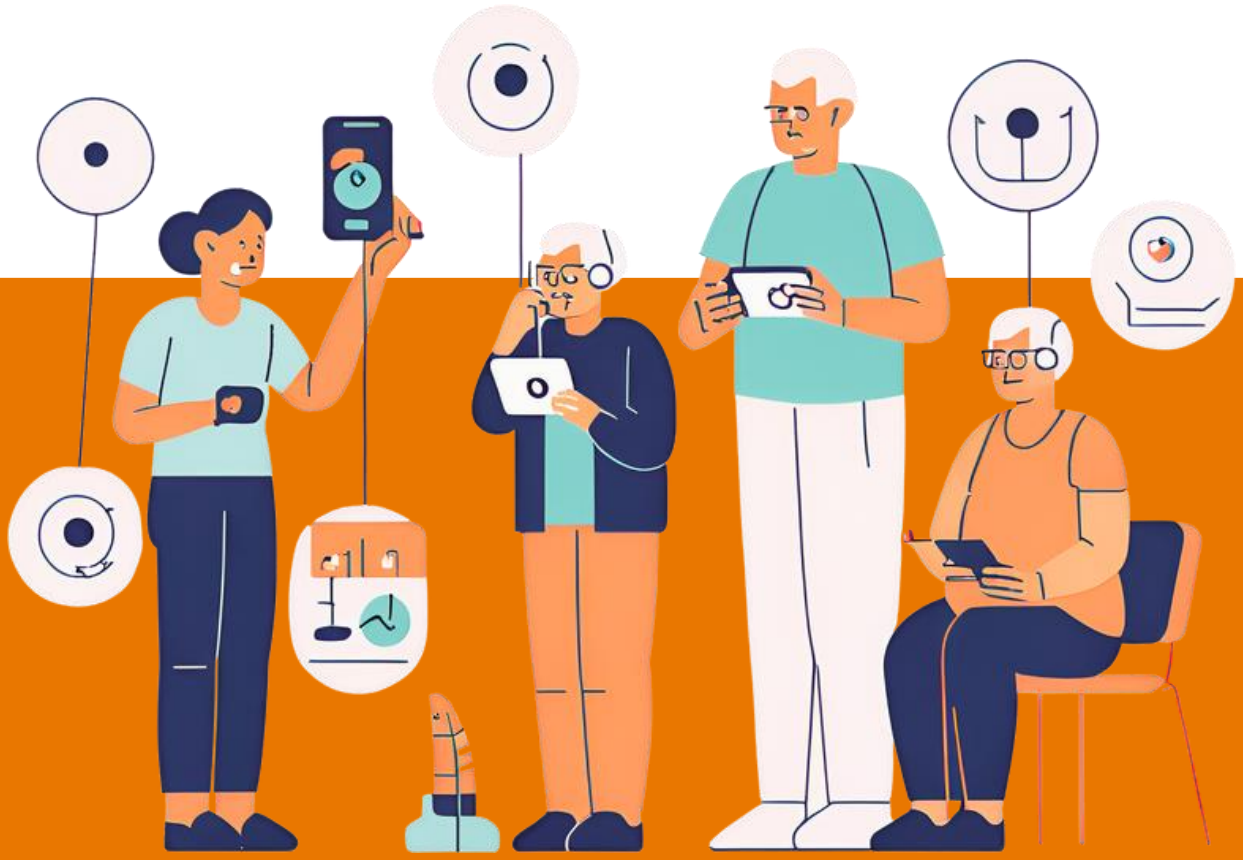
1. UNDERSTANDING OLDER ADULTS' BEHAVIOUR AND MOTIVATIONS



Written by Ana Isabel Sánchez Iglesias (Diputación de Zamora)

Overview	Population ageing is a global phenomenon that has led to growing interest in the health and well-being of older adults. Sports and physical activity in this age group have been identified as key elements in maintaining physical and mental health, improving quality of life, and promoting longevity. This chapter focuses on the behaviour and motivations of older adults in sports, exploring the factors that drive them and the barriers they face. Through a comprehensive analysis of existing literature and the presentation of empirical data, we aim to help sports trainers better understand their senior students, enable them to address their challenges, and offer recommendations to encourage sports participation in this population.
Objectives	• Identify common fears and motivations that affect older adults' physical activity choices. • Explore aspirations and personal goals tied to physical activity in older adults. • Analyse cognitive biases and heuristics that affect decision-making about exercise. • Examine how pleasure-seeking and pain-avoidance instincts shape activity choices. • Propose strategies and encouragement techniques to boost productive motivations and sports participation.
Learning Outcomes	• Understand key fears that affect older adults' engagement in physical activity. • Identify common aspirations and goals related to physical activity among older adults. • Recognize cognitive biases and heuristics that influence exercise decisions. • Develop strategies to reduce counterproductive motivations and enhance productive motivations. • Apply encouragement techniques to increase sports participation in older adults. • Understand the role of pleasure-seeking and pain-avoidance instincts in exercise motivation. • Foster positive attitudes toward physical activity by addressing fears and promoting enjoyment.

1.1: Common fears of older adults that influence their physical activity

As people age, physical and emotional challenges tend to intensify, influencing their behaviour and daily decisions. Among these challenges, specific fears related to physical activity play a crucial role. These fears, while often overlooked or underestimated, can significantly affect the quality of life of older adults, limiting their participation in activities that, paradoxically, could improve their health and overall well-being. In this subchapter, we will explore some of the most common fears faced by older adults concerning physical activity and how these fears can be addressed to promote active and healthy ageing.

The most important fears for the elderly when trying physical activity are the following (including quotes after analysing several interviews conducted as part of the IKIGAI55 project):

1. Fear of Falling

> *"I used to love going for walks, but now I can't shake the fear of tripping on uneven ground"*

One of the most prevalent fears among older adults is the fear of falling. This fear is understandable, given that falls are one of the leading causes of serious injuries in older individuals, including bone fractures and brain trauma. Concern over a potential fall can lead to reduced mobility and avoidance of activities perceived as risky, such as walking outdoors, climbing stairs, or participating in low-impact exercises.

However, avoiding physical activity due to the fear of falling can be counterproductive. Inactivity can further weaken muscles and diminish balance, actually increasing the risk of falling. To mitigate this fear, it is crucial that older adults receive information and training in safety techniques, as well as access to exercise programs specifically designed to improve balance and muscle strength.

2. Fear of Injuries or Pain

> *"Pain has become a constant companion in my life, and the thought of injuring myself further is frightening. I just want to feel safe"*

Many older adults fear that exercise might cause them injuries or exacerbate pre-existing pains, such as arthritis or chronic aches. This fear is often based on past experiences or the perception that their bodies are frailer with age. As a result, some avoid physical activities they perceive as strenuous or risky, opting instead for a sedentary lifestyle.

To overcome this fear, it is essential for older adults to understand that not all-physical activity carries a high risk of injury. It is important to highlight the significance of choosing activities appropriate for their fitness level, such as walking, swimming, or practising yoga, and the necessity of starting any exercise program under the guidance of a health professional. Support from physiotherapists and specialised trainers can help design safe routines that minimise the risk of injuries and promote greater confidence in the body's ability to remain active without pain.

3. Fear of Fatigue and Loss of Energy

> *"The thought of being too tired to do the things I love makes me hesitate to try. I don't want to feel weak."*

The fear of feeling too tired or fatigued after physical activity is another common obstacle. As people age, it is natural for them to experience a decrease in energy levels, and the fear of becoming exhausted after exercise can deter participation in regular activities.

To combat this fear, it is helpful to educate older adults about the long-term benefits of physical activity for increasing energy. Although they may initially feel slight fatigue, over time, regular physical activity can improve endurance and raise overall energy levels. Furthermore, emphasising the importance of starting with gentle and short-duration exercises can help older adults overcome the fear of fatigue and experience the gradual benefits of exercise.

4. Fear of Embarrassment or Shame or Social Comparison

> *"The last time I tried a new class, I felt so out of place that I almost left. I don't want to be the oldest or the weakest in the room."*

Some older adults may fear being judged or ridiculed for their physical condition, especially if they perceive that they cannot perform activities at the same level as younger peers or even other more active older adults. This fear of humiliation or shame can lead to complete avoidance of environments where physical activity takes place, such as gyms or parks.

In the case of mixed-age group classes, older adults may feel frustrated and uncomfortable for not being able to keep up with younger participants, feeling left behind, awkward, slow, and "old." Generally speaking, older people tend to isolate themselves and have fewer habits that connect them to the outside world. They believe they are no longer capable (*I cannot dance, I am not able*), and they lack self-confidence/self-esteem. Sometimes they are reluctant to start something new or can't keep up with younger participants (e.g., in a Zumba class—finding it difficult to learn choreography quickly)."Creating an inclusive and supportive environment is key to addressing these fears. Exercise programs tailored for older adults, which encourage participation at their own pace and celebrate individual achievements, can help reduce anxiety related to performance. Additionally, socialising in exercise groups for older adults can foster a sense of community and mutual support, which decreases the fear of being judged and promotes continuity in physical activity.

1.2: Common aspirations and goals of older adults associated with physical activity

Ageing is a stage of life where many people rethink their priorities and aspire to maintain a good quality of life through healthy habits. Physical activity plays a crucial role in this context, not only as a means of preserving physical health but also as a tool for improving emotional and social well-being. In this subchapter, we will explore the most common aspirations and goals among older adults associated with physical activity, highlighting how these motivations positively impact their lives.

1. Preserving Health and Mobility: Desire to Stay Independent and Functional

One of the most important goals for older adults engaging in physical activities is the desire to maintain their health and mobility. Independence and functionality are fundamental aspects that allow them to lead an active and autonomous life, minimising the need for daily assistance. Staying physically active helps prevent chronic diseases like hypertension, diabetes, and heart disease, which are more common with ageing.

Moreover, regular physical activity strengthens the muscles and joints, which is crucial for maintaining balance and coordination. This not only reduces the risk of falls and injuries but also enables older adults to perform daily activities such as walking, climbing stairs, or carrying bags more safely and with less effort. The desire to remain independent and functional is a powerful motivation that drives many older adults to incorporate exercise into their daily routine, aiming to prolong their ability to live autonomously and enjoy a better quality of life.

2. Improving Psychological Well-Being: Reducing Stress, Enhancing Mood, and Preventing Depression

Psychological well-being is another crucial area where physical activity has a significant impact. As people age, they may face emotional challenges such as loneliness, anxiety, or depression, often exacerbated by the loss of loved ones, retirement, or decreased social interaction. In this context, physical activity becomes a vital tool for improving mood and overall mental health.

Regular exercise releases endorphins, known as the "happiness hormones," which help reduce stress and anxiety. Additionally, exercise provides a sense of achievement and competence, which can be particularly beneficial for older adults seeking to maintain a sense of purpose and self-esteem. Physical activity can also improve sleep quality, which in turn contributes to better mood and greater emotional resilience. Preventing depression and improving psychological well-being are significant goals for many older adults who find that exercise is an effective way to maintain mental health and emotional balance.

3. Social Connection: Opportunities for Social Interaction and Making New Friendships

Physical activity not only benefits physical and mental health but also offers valuable opportunities for social connection. For many older adults, group activities such as walking in a group, attending aerobics classes, or participating in sports clubs are excellent ways to interact with others and form new friendships. This social interaction is essential for combating loneliness and isolation, which are common issues among older individuals.

It is important to highlight the findings we reached after analysing several interviews conducted as part of the IKIGAI55 project. The responses consistently pointed to the following key motivations: "*achieving health benefits, losing weight after menopause, increasing energy, enjoying the happiness that exercise brings, reaching personal goals, and relieving stress.*" Therefore, we can identify the following as the main motivational objectives:

- Integration: Feeling in tune with society.
- Weight loss, especially for women (post-menopause).
- Not feeling (too) old.
- Usage by children/grandchildren: for example, for emergency detection or safety purposes. This may be medically recommended or a family expectation.
- Setting and achieving goals: these goals must be realistic.Health management (heart rate, weight, physical activity).

1.3: Cognitive biases and relevant thought heuristics in physical activity

Human behaviour, especially when engaging in physical exercise, is heavily influenced by certain "tricks" the brain uses to make quick decisions, known as cognitive biases and thinking heuristics.

- **Cognitive biases:** These are errors or shortcuts our mind takes when interpreting information. For example, "confirmation bias" leads us to seek out information that supports what we already believe, while ignoring other facts. Example: *"Taking a shower right after eating will disrupt my digestion."*
- **Thinking heuristics:** These are quick rules we use to simplify decisions or problems. Instead of thoroughly analysing everything, we make decisions based on past experiences or mental shortcuts. Example: *"I always fall at that part, so I won't jump over it."*

These biases and heuristics influence how we make daily decisions, including those related to physical activity, such as whether to exercise, what type of training to choose, or how we perceive our progress. For instance, you might overestimate the effectiveness of your workout if it felt difficult, even if you didn't burn many calories. Or, you might think an activity is the best option simply because it's popular or trendy, without researching whether it's truly the best choice for you.

It is true that these mental shortcuts allow us to make decisions quickly and efficiently, but they can also lead us to errors in judgement and to adopt behaviours that are not always the most beneficial for our health. In this subchapter, we will explore three cognitive biases and thought heuristics particularly relevant in the context of physical activity: confirmation bias, anchoring effect, and availability heuristic.

1. Confirmation Bias: Tendency to Seek Information that Supports Pre-existing Beliefs about Physical Activity

Confirmation bias is a cognitive phenomenon in which individuals tend to seek, interpret, and remember information in a way that confirms their pre-existing beliefs and expectations. In the context of physical

activity, this bias can significantly impact how individuals approach exercise and the adoption of healthy habits.

For example, a person who believes that physical activity is unnecessary for maintaining good health may focus solely on studies or testimonials suggesting that diet alone is sufficient to control weight and prevent diseases. Similarly, someone who believes exercise is dangerous for people with joint issues may avoid any information suggesting otherwise, such as studies highlighting the benefits of low-impact exercise for improving mobility and reducing pain.

This bias can also influence how individuals perceive their own physical capabilities. If an older adult believes they are too old to benefit from exercise, they may ignore or minimise evidence showing that physical activity is beneficial at all stages of life.

To overcome confirmation bias, it is important to promote an open mindset and encourage the active search for diverse and evidence-based information that can challenge erroneous or limiting beliefs about physical activity.

2. Anchoring Effect: Influence of First Experiences with Sports and Physical Activity

The anchoring effect is a cognitive bias in which individuals rely too heavily on the first piece of information they receive (the "anchor") when making subsequent decisions. In the context of physical activity, initial experiences with sports or exercise can have a lasting impact on attitudes and future behaviours related to physical activity.

For example, if a person had a negative experience with exercise in their youth—such as sustaining an injury during a physical education class or being ridiculed for their performance—that experience is likely to become an anchor that influences their perception of exercise throughout their life. As a result, they may avoid physical activity, believing it is dangerous, uncomfortable, or simply not for them.

To counteract the anchoring effect, it is crucial to create new positive and rewarding experiences related to physical activity, especially for those influenced by negative anchors in the past. This can include exercise programs specifically designed to be accessible, safe, and enjoyable for people of all ages and skill levels.

3. Availability Heuristic: Assessing Risk Based on Recent Experiences of Injuries or fall

The availability heuristic is a mental shortcut used to evaluate the likelihood of an event based on how easily one can recall recent or vivid examples of that event. In the context of physical activity, this heuristic can lead individuals to overestimate the risk of injuries or falls, especially if they have recently experienced a negative event related to exercise.

For example, an older adult who has fallen while walking may come to believe that walking is an extremely dangerous activity, and as a result, may avoid it altogether. In this regard, the positive reinforcement that a trainer can provide can also be a crucial factor in overcoming fears like this.

To mitigate the effects of the availability heuristic, it is important to provide clear, evidence-based information about the risks and benefits of physical activity. Furthermore, offering emotional support and counselling to help overcome the fear of injuries can assist individuals in making more balanced and data-driven decisions about their participation in physical activities.

For example, raising awareness by showing a positive video about the new exercise the trainer wants to introduce; this can alter the availability heuristic.

1.4: Basic instincts: seeking pleasure and avoiding pain in sports

Fundamental human instincts to seek pleasure and avoid pain significantly influence our decisions and behaviours, including those related to physical activity and sports. These motivations, deeply rooted in our biology and psychology, can determine an individual's predisposition to adopting or rejecting certain forms of exercise. In this subchapter, we will examine how these instincts manifest in the sports context through hedonic motivation, avoidance of discomfort, and the need to balance pleasure and safety in physical activities.

Hedonic Motivation: Physical Activities that are Perceived as Fun and Enjoyable

Hedonic motivation refers to the natural inclination of humans to seek experiences that provide pleasure and enjoyment. In the context of sports and physical activity, this motivation manifests in the preference for activities perceived as fun and enjoyable. According to Deci and Ryan's (2000) self-determination theory, individuals are more intrinsically motivated when they engage in activities that provide personal satisfaction rather than doing so out of obligation or for external rewards.

Physical activities seen as enjoyable not only increase the likelihood of long-term adherence but also enhance the psychological well-being of participants. Engaging in exercises that are genuinely enjoyed can lead to a greater release of endorphins, reduce stress, and improve mood (Stavrianea & Kafetzopoulos, 2019). Additionally, hedonic motivation can create a positive cycle where the pleasure derived from exercise motivates ongoing participation, leading to improvements in physical and mental condition.

A practical example of hedonic motivation in action could be a group of people who regularly attend Zumba classes. The combination of energetic music, dance movements, and a positive social environment makes the participants associate the activity with fun and enjoyment. As a result, they are more likely to continue attending these classes regularly compared to those who engage in activities they find boring or tedious.

It is advisable, to foster hedonic motivation in physical activity, that exercise programs are designed to incorporate elements that participants enjoy. This may involve choosing motivating music, creating a positive social environment, or incorporating playful activities. It is also essential to allow individuals to

choose the activities they like best, as autonomy in choice is closely linked to greater intrinsic motivation (Ryan & Deci, 2000).

Avoidance of discomfort: strategies to avoid activities that cause pain or discomfort

Avoidance of discomfort is a basic instinct that leads individuals to avoid situations that cause pain, discomfort, or suffering. This instinct is based on the natural tendency of humans to protect themselves from negative experiences that may threaten their physical or emotional well-being. In the context of sports, this principle applies when individuals choose to avoid exercises they perceive as too strenuous or painful.

The main benefit of avoiding activities that cause pain or discomfort is that it can be crucial for injury prevention and maintaining long-term motivation.

A practical example of avoidance of discomfort can be observed in people who choose to walk rather than run as their primary form of exercise. Those who find running painful or uncomfortable, especially if they have joint issues or are overweight, may opt for brisk walking, an activity that allows them to stay active without experiencing pain or discomfort. This strategic choice helps maintain exercise adherence without sacrificing physical well-being.

To address avoidance of discomfort, it is vital for trainers and exercise professionals to design programs that accommodate individual needs and limitations. This could include modifying exercises to reduce impact or intensity, providing adequate rest breaks, and teaching warm-up and cool-down techniques that minimise muscle discomfort. In the same vein, understanding the user's motivations and establishing tailored pathways that address them can be more than just a strategic reference when developing customised plans and programs.

Additionally, it is important to educate participants on how to differentiate between pain associated with injury and normal discomfort from physical exertion so they can adjust their activity accordingly.

Balance between pleasure and safety: finding a balance between enjoying physical activity and maintaining safety

The balance between seeking pleasure and avoiding pain is essential for safe and sustainable sports practice. This balance involves finding activities that are enjoyable while also respecting the individual's physical limits, minimising the risk of injuries. According to Apter's (1989) theory of balance, individuals seek a state of "meta-stability" where they can experience the pleasure of challenge without it becoming a risk to their well-being.

The main benefit of maintaining an adequate balance between pleasure and safety in physical activity is that it can increase satisfaction and adherence to exercise while reducing the risk of injuries.

A practical example of achieving a balance between pleasure and safety can be seen in recreational cycling. Many cyclists enjoy the pleasure of riding through natural landscapes and feeling the adrenaline of exercising outdoors. However, to maintain safety, it is crucial that cyclists use appropriate protective gear, follow traffic rules, and adapt the intensity of their effort to their fitness level. This way, they can maximise the pleasure of the activity while minimising associated risks.

To achieve an effective balance between pleasure and safety in physical activity, it is important that participants receive proper education on safe exercise techniques, the use of protective equipment, and

the significance of listening to their bodies. Exercise programs should be designed to provide a pleasurable challenge without exceeding individual capabilities. Furthermore, fostering a culture of exercise that values both enjoyment and caution can promote a positive attitude toward physical activity without compromising safety.

1.5: Minimising counterproductive motivations and maximising productive motivations

Motivation is a crucial factor influencing participation in physical activity, especially among older adults. Understanding how to minimise counterproductive motivations and maximise productive motivations is fundamental to promoting an active and healthy lifestyle. This subchapter addresses strategies to reduce psychological barriers, utilise positive incentives, and create supportive environments with the aim of improving adherence to physical activity in the older population.

Reducing Psychological Barriers: Strategies for Overcoming Fear and Anxiety

Psychological barriers, such as fear of injury and performance anxiety, can prevent older adults from participating in physical activities. According to Witte's (1992) threat control theory, fear can motivate adaptive behaviours only if there is a perceived high capacity to confront the threat. However, if fear is overwhelming or they do not feel capable of handling the situation, it can lead to avoidance.

Reducing these psychological barriers can increase older adults' willingness to engage in exercise, improving their physical and mental health. Overcoming fear of falling, for instance, can allow them to perform strengthening and balance exercises essential for injury prevention and enhancing quality of life (McAuley et al., 2007).

An exercise program for older adults that incorporates relaxation techniques and education on risk management can serve as a practical example. These programs can include group training sessions where participants discuss common fears and practise gentle exercises in a controlled environment, thus reducing anxiety and fostering confidence in their physical abilities.

It is advisable that exercise programs include educational components addressing fear and anxiety, such as stress management workshops and informational sessions on exercise safety. Furthermore, individual psychological support can be offered to those experiencing high levels of anxiety related to physical activity.

Supportive Environments: Creating Settings Where Older Adults Feel Safe and Motivated

Supportive environments, according to Bronfenbrenner's (1979) ecological behaviour theory, play a crucial role in facilitating healthy behaviours. A safe and welcoming environment can reduce barriers to participation in physical activity and increase motivation.

An environment that promotes safety, inclusivity, and social support can reduce anxiety and increase active participation. Perceived social support is a positive predictor of adherence to physical activity, as it provides a sense of belonging and shared motivation (Smith et al., 2017).

A practical example is a gym that offers flexible hours, staff trained to work with older adults, and exercise groups designed to foster social interaction and mutual support exemplifies a supportive environment.

To create supportive environments, it is essential that exercise spaces are accessible, safe, and friendly to older adults. Including trained staff to work with this population, as well as fostering socialisation and peer support, can be key to maximising motivation and long-term adherence.

More info in Chapter 6 *"Social connection and group dynamics in senior sports"*

Tips and Recommendations

How to Use Multimodal Training Programs for Older Adults:

To promote physical activity among older adults, focus on empathy, safety, and personalization. Begin with gentle, low-impact exercises that align with individual comfort levels and aspirations, like walking or gentle yoga. Address fears by gradually increasing exercise intensity, incorporating relaxation techniques, and emphasising benefits such as independence, strength, and social connections.

Recognize and mitigate cognitive biases, instincts, and counterproductive motivations like fear and anxiety by creating supportive and enjoyable environments. Highlighting positive outcomes and building social support can help sustain their engagement in physical activities and enhance their quality of life.

Pay Attention to the Following…

To support older adults in physical activity, address specific fears like falling, injury, fatigue, and social discomfort. Provide gentle, gradual exercises, focusing on safety and tailored to individual goals for maintaining independence and psychological well-being.

Reduce psychological barriers through relaxation techniques, education on risk management, and creating a non-judgmental environment.

Utilise cognitive strategies to counter biases, such as confirmation bias and the anchoring effect from negative experiences. Encourage enjoyable activities that balance pleasure and safety, offering low-impact alternatives and rest breaks to minimise discomfort.

Establish supportive environments with flexible hours, trained staff, and peer-based group sessions to foster motivation, social connection, and long-term adherence to physical activity.

Combining with Smart Technology

Integrating smart technology with exercise routines can support older adults by using wearables or apps to monitor health metrics like heart rate, steps, and activity levels. These devices provide reassurance, help track progress, and enable them to set achievable goals, fostering confidence and a sense of control. Video-guided exercises accessible from home offer a safe alternative for those uncomfortable with group settings. Fitness apps with reminders and gentle guidance add motivation, while data tracking helps counter cognitive biases, enhancing both adherence and enjoyment in physical activity**.**

Recommendations for Synchronous & Asynchronous Training Modalities

For training older adults, combine synchronous (real-time) and asynchronous (flexible) methods to meet diverse needs. In group classes, emphasise peer support, relaxation, and warm-up routines to build trust and reduce stress. For home-based activities, provide video content and printable routines that allow independent practice.

Blended options, such as combining in-person sessions with virtual check-ins or online classes, offer flexibility and comfort while encouraging both social interaction and individual engagement. Online videos and resources on safe exercise techniques also support ongoing participation at each person's preferred pace.

Questions to reflect on

How can understanding and addressing the common fears of older adults regarding physical activity contribute to designing more effective exercise programs that promote active and healthy ageing?

How can recognizing the aspirations of older adults, such as maintaining independence, improving psychological well-being, and fostering social connections, inform the design of physical activity programs that better meet their needs and motivations?

How can understanding cognitive biases like confirmation bias, anchoring effect, and availability heuristic help in designing interventions that encourage older adults to engage in physical activity more effectively?

How can understanding the balance between seeking pleasure and avoiding pain help older adults develop sustainable exercise habits that enhance both their enjoyment and safety?

How can creating supportive environments and addressing psychological barriers help older adults feel more confident and motivated to engage in regular physical activity?

Conclusions

The fears older adults experience regarding physical activity—such as fear of falling, injury, fatigue, embarrassment, and psychological barriers—are both valid and common. However, these fears can be effectively mitigated with appropriate support, education, and encouragement. By proactively addressing these concerns, trainers and caregivers can empower older adults with the tools and knowledge necessary to engage in physical activity safely, fostering a healthier lifestyle and improving their quality of life throughout the ageing process.

Physical activity plays a critical role not only in enhancing physical health but also in boosting confidence, improving mental well-being, and fostering social connections—elements that are vital for successful ageing. Understanding the diverse aspirations and goals of older adults related to exercise—such as maintaining mobility, achieving personal health objectives, and enhancing social interaction—can help create tailored programs that resonate with their motivations.

Utilising technology, such as wearables and apps, can further enhance this process by providing tangible data and feedback, reinforcing positive habits and progress. Moreover, integrating both synchronous and asynchronous training modalities allows for flexibility and personalised experiences, accommodating individual preferences and comfort levels.

Ultimately, by prioritising the physical, emotional, and social dimensions of exercise for older adults, we can promote a more active, healthy, and fulfilling ageing experience. This approach not only enhances the quality of life for older adults but also equips them to face the challenges of ageing with resilience and optimism.

Resources

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Quiz

1.

Which of the following is a common fear among older adults that can limit their participation in physical activity?

a) Fear of gaining too much muscle
b) Fear of falling and getting injured
c) Fear of boredom during exercise
d) Fear of missing social events

2.

What is a common goal among older adults that motivates them to engage in physical activity?

a) To compete in professional sports
b) To maintain health and mobility for independent living
c) To prepare for a career change
d) To reduce muscle mass

3.

Which cognitive bias might cause an older adult to avoid physical activity because of a negative experience they had with exercise earlier in life?

a) Confirmation bias
b) Anchoring effect
c) Availability heuristic
d) Hindsight bias

4.

Which concept explains why individuals are more likely to continue participating in physical activities they find enjoyable rather than those they find tedious or obligatory?

a) Avoidance of discomfort
b) Anchoring effect
c) Hedonic motivation
d) Availability heuristic

5.

Which strategy involves the use of both intrinsic and extrinsic rewards to encourage older adults to maintain a regular exercise routine?

a) Reducing psychological barriers
b) Anchoring effect
c) Supportive environments
d) Positive incentives

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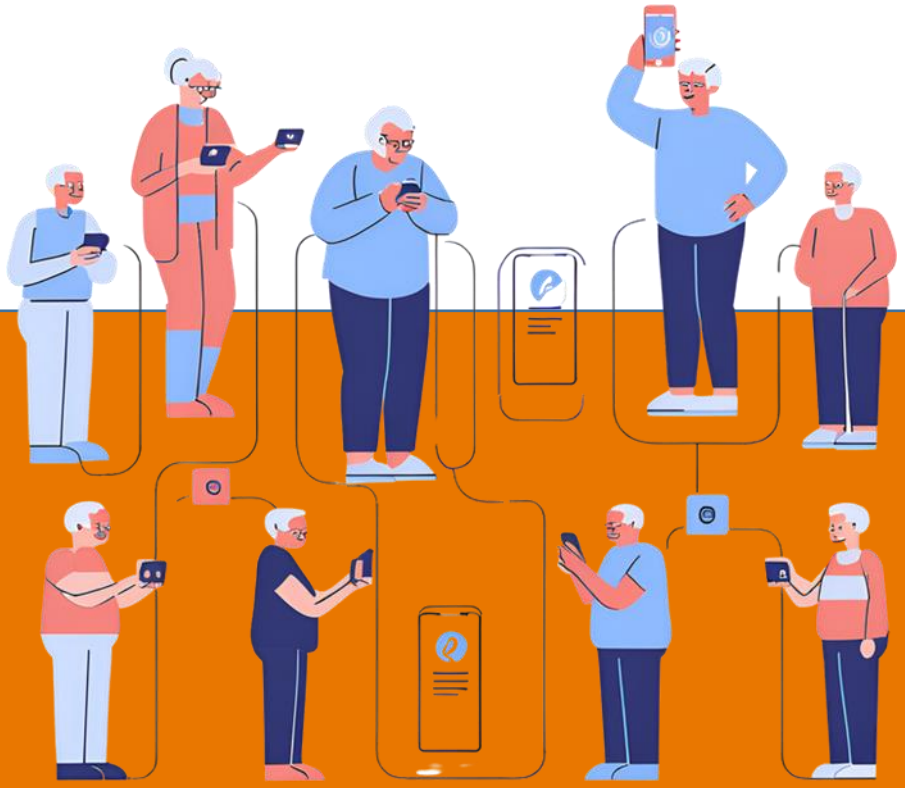
2. COMMITMENT TO PHYSICAL ACTIVITY



Written by Enikő Nagy (TREBAG)

Overview	This chapter maps the main theories and practicies leading to the commitment to physical activities. The trainers should be prepared to know and deal with extrinsic and intrinsic motivation aspects and know how to motivate their learners with integrated and instrumental motivators. Besides the theoretical aspects, the chapter will include examples and recommendations in the topic.
Objectives	• To describe the main concepts about the commitment to physical activities • To give guidance to trainers and facilitators on how to handle extrinsic and intrinsic motivation • To describe the differences and importance of integrated and instrumental motivators
Learning Outcomes	• Learners will be updated on the latest theories on the commitment to PA • Learners will know about various aspects on extrinsic and intrinsic motivation and integrated and instrumental motivators • Trainers will be able to select the motivational tools to meet the needs and types of their clients • Learners will be able to measure the commitment to physical activity • Learners understand the importance of various types of motivation and motivators • Learners will be committed to help older clients in developing commitment to PA

2.1: Extrinsic motivation

Introduction

Imagine that you're working with a group of adults over 55, and as you bring up the idea of regular physical activity, you see the familiar reactions—some are intrigued, while others are unsure or even a bit resistant. They might wonder if it's really worth it at their age. Yet, you've seen the difference it can make—how some people in their 60s and beyond are flourishing, staying active, feeling stronger, and enjoying life more fully. What makes that difference? For older adults, motivation and commitment to physical activity can be truly life-changing. Motivation is what gets them started, whether it's to feel healthier, stay independent, or simply enjoy time with loved ones. But it's the commitment—the ability to stick with it, even when it's tough—that keeps them going and brings lasting benefits.

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> ***As a coach or facilitator, your role is crucial. In this chapter, you'll learn about intrinsic motivation (the inner drive from personal enjoyment) and extrinsic motivation (encouragement from external goals), and discover practical ways to inspire older adults not only to get moving but stay committed to an active, fulfilling lifestyle***

Extrinsic Motivation in Physical Activity. A theoretical overview

Extrinsic motivation refers to engaging in activities for external rewards or pressures, rather than for the joy or satisfaction of the activity itself. This could mean exercising to lose weight, earning praise from others, or avoiding negative health outcomes. According to research, extrinsic motivation plays a significant role in driving behaviour across various areas of life, especially when people need an initial push to start something new or maintain consistency (Ryan & Deci, 2000).

Throughout life, extrinsic motivation is often what prompts us to take action when intrinsic interest may be lacking. Think about it: we often work because we need a salary, not because we love every aspect of our jobs. Similarly, students may study to get good grades, not necessarily for the love of learning. These external motivators—whether money, recognition, or avoiding negative consequences—can be powerful tools to get us moving, especially when internal motivation is low. In fact, studies show that extrinsic motivators can help bridge the gap between starting an activity and building a habit that later might become more internally rewarding (Deci & Ryan, 1985).

Extrinsic motivators can help bridge the gap between starting an activity and building a habit

The Benefits of Extrinsic Motivation for Older Adults

As we age, extrinsic motivators continue to be important. For older adults, engaging in activities for external reasons, like staying active to maintain independence or improve quality of life, can be highly beneficial. Research suggests that older adults are often motivated by practical concerns, such as avoiding disability, reducing the risk of chronic disease, and staying socially connected (Schutzer & Graves, 2004). These external motivators give them a clear, tangible reason to stay active, even if they don't necessarily enjoy the activity itself at first.

When it comes to physical activity, extrinsic motivation can be a powerful tool for older adults. Many might not be immediately excited about exercising, but the prospect of maintaining mobility, reducing joint pain, or even just keeping up with grandchildren can act as strong external motivators. For instance, studies highlight that fear of losing independence is a major driver for older adults to stay physically active (Crombie et al., 2004). The external reward of continuing to live independently can be enough to keep them committed to a routine.

Examples for Various Types of Extrinsic Motivators

Types of extrinsic motivators include:

Tangible rewards, like prizes or gym discounts, offer immediate gratification, reinforcing effort and helping people stay committed.

Social recognition boosts self-esteem and creates a sense of belonging, as seen when friends or instructors praise improvements, or when someone is publicly acknowledged for completing a charity run.

Avoiding negative consequences, such as health issues or loss of independence, pushes individuals to adopt healthier habits—whether they're exercising to prevent conditions like diabetes or maintain mobility to stay independent.

Social influence and accountability keep people consistent through shared experiences, such as working out with a partner or joining a fitness class where others expect you to show up.

Structured goals and deadlines create focus, helping individuals train for specific events, such as a 5K race or completing a 30-day fitness challenge. These extrinsic motivators can be especially effective in encouraging older adults to maintain an active and healthy lifestyle.

Health benefits, often recommended by doctors, provide clear reasons to stay active—like following a fitness plan to lower blood pressure or recover from surgery.

Smart tools like fitness trackers, apps, and virtual coaching add another layer of extrinsic motivation. These tools provide real-time feedback, set goals, and track progress, offering rewards like badges or milestones for hitting daily steps or workout goals. They also allow users to share their achievements with social networks, adding extra encouragement through virtual social recognition. These digital tools make it easier for older adults to stay on track, providing both motivation and accountability in their physical activity journe

Stop and think:

If you are a *facilitator/trainer*:

- What of the above motivators do you already use with your clients?
- Seeing these examples what else could you use? Create lesson plans and include them

If you are a trainee:

- What of the above motivators make you move the most? How do you think your motivation could be boosted based on these?

2.2: Intrinsic Motivation in Physical Activity

Intrinsic motivation refers to engaging in an activity for the inherent enjoyment or satisfaction it provides, rather than for external rewards. In the context of physical activity, this means being active because you genuinely enjoy it, find it personally rewarding, or love the feeling of accomplishment. According to research, intrinsic motivation is more likely to lead to long-term adherence to physical activity, as it is driven by personal interest and internal satisfaction rather than external factors (Ryan & Deci, 2000). When people exercise because they find it fun, relaxing, or energising, they are far more likely to stick with it, making intrinsic motivation a powerful and sustainable driver of physical activity.

For older adults, intrinsic motivation is particularly crucial. As we age, the focus often shifts from external rewards like appearance or competition to more personal, internal benefits. Older adults are more likely to stick to physical activity if they enjoy it or feel a sense of satisfaction and accomplishment from it (Rosenberg et al., 2014). Activities like walking in nature, dancing, or engaging in light strength training can provide a sense of well-being, independence, and personal fulfilment.
Additionally, studies show that older adults who exercise for intrinsic reasons—such as feeling good or maintaining autonomy—are more likely to stay active in the long run (Teixeira et al., 2012). This makes intrinsic motivation a key factor in promoting long-term adherence to exercise and, ultimately, better health outcomes for older adults.

The Benefits of Intrinsic Motivation

The primary benefit of intrinsic motivation is its long-lasting effect. Unlike extrinsic motivators, which may lose their appeal over time, intrinsic motivation tends to build over time as individuals become more engaged and find more enjoyment in the activity. People driven by intrinsic motivation often experience greater personal satisfaction, improved well-being, and a deeper sense of accomplishment. Intrinsically motivated individuals also tend to have a more positive relationship with physical activity, which can improve overall health outcomes (Teixeira et al., 2012).

Examples for Types of Intrinsic Motivators

Enjoyment and Pleasure

Intrinsic motivation is often sparked by the sheer joy of the activity. Some people find exercise enjoyable because it makes them feel good, boosts their mood, or simply provides a sense of fun. The experience of enjoying the movement, such as dancing, swimming, or walking in nature, can make the activity itself the reward.

Example: Someone may love swimming not for the calorie burn, but because they find the sensation of water calming and refreshing.

Challenge and Mastery

Another form of intrinsic motivation comes from the desire to overcome challenges and achieve personal growth. People who are motivated by mastery enjoy learning new skills, pushing their limits, and experiencing the satisfaction of improvement. This type of motivation is especially common in activities that require skill development or practice, like yoga or strength training.

Example: A person might feel motivated to keep lifting weights because they enjoy seeing their progress and love the feeling of getting stronger over time.

Autonomy and Independence

Many people are driven by the sense of autonomy that physical activity can offer. Exercising because you want to, rather than feeling forced, enhances feelings of control and freedom. When people have the freedom to choose their own activities and set their own goals, they are more likely to engage consistently.

Example: An older adult may enjoy walking because it allows them to spend time outdoors on their terms, moving at their own pace and enjoying the freedom it brings.

Personal Satisfaction and Well-being

Physical activity often provides immediate psychological benefits, such as stress relief, better sleep, and improved mood. People motivated by these effects are driven by how exercise makes them feel in the moment, rather than any long-term goal or external reward.

Example: A person might engage in yoga because it helps them feel relaxed and mentally balanced, giving them a sense of peace and calm.

Stop and think:

If you are a *facilitator/trainer*:

- What of the above motivators do you try to trigger in your clients?
- Seeing these examples what else could you use? Create lesson plans and include them

If you are a trainee:

- What of the above motivators do you sense when you do sports? Which is the most important? Try to think and choose your sports and trainers with this in mind.

2.3: The Effects of Intrinsic and Extrinsic Motivators

While extrinsic motivators, such as rewards or external pressures, can be effective for initiating physical activity, they may also have unintended consequences. Research indicates that relying heavily on extrinsic rewards can undermine intrinsic motivation over time. For instance, a study by Lepper, Greene, and Nisbett (1973) found that children who were rewarded for drawing enjoyed the activity less when the rewards were removed, suggesting that external rewards can diminish inherent enjoyment. In the context of physical activity, this means that people may initially engage in exercise for rewards or recognition but might lose interest once these external incentives are gone (Deci et al., 1999).

Conversely, intrinsic motivation—driven by personal enjoyment or satisfaction—has been shown to lead to more sustained and fulfilling engagement. A study by Vallerand et al. (1997) demonstrated that individuals who engage in physical activity for the inherent pleasure and personal growth experience greater long-term commitment and overall well-being. This suggests that when people find joy or personal meaning in their exercise routines, they are more likely to stick with them and reap the long-term benefits.

The key finding is that while extrinsic motivators can help initiate physical activity, they may reduce intrinsic motivation if used excessively. Long-term engagement and satisfaction are more likely when physical activity is driven by internal rewards, such as personal enjoyment or a sense of accomplishment.

Therefore, a balanced approach—starting with external incentives and cultivating internal enjoyment—can help maintain motivation and support lasting, positive habits.

2.4: Commitment to Physical Activity

As we've explored, motivation is the driving force behind starting and continuing physical activity. Intrinsic motivators, like finding joy or personal satisfaction in exercise, fuel a genuine passion for staying active. Meanwhile, extrinsic motivators, such as rewards or social recognition, provide the initial boost that gets people moving. But motivation alone isn't enough to keep us going; that's where commitment comes into play.

Commitment to physical activity is like the glue that holds everything together, turning initial enthusiasm into lasting habits. It's about more than just getting started; it's about sticking with it, even when motivation ebbs and flows. This is where integrated and instrumental motivators come in, providing the framework for maintaining that dedication over time.

Integrated motivators are closely tied to intrinsic motivation. They align with our personal values and self-identity. For instance, if you view yourself as someone who prioritises health and wellness, that belief can drive you to stay active. You're not just exercising for the sake of it; you're doing it because it's a fundamental part of who you are.

On the other hand, instrumental motivators resemble extrinsic motivators. They're about the tangible benefits you gain from being active. For example, the desire to lose weight, improve heart health, or manage chronic conditions are practical reasons that can push you to exercise. They offer clear, measurable outcomes that can help keep you on track.

Tips and Recommendations

Commitment pathway

For older adults, this blend of motivators is especially important. Here's how to stay committed:

1. **Set Realistic Goals**: Start with achievable targets, like a daily walk or a weekly fitness class. These goals, driven by both intrinsic satisfaction and instrumental benefits, provide a clear path forward.
2. **Create a Routine**: Incorporate physical activity into your daily life. Perhaps schedule morning walks or afternoon stretches. Routine helps transform motivation into a habit.
3. **Seek Social Support**: Join a local fitness group or exercise with friends and family. Social connections enhance both intrinsic joy and provide external encouragement, making it easier to stay committed.
4. **Adapt Activities**: Choose exercises that you enjoy and that meet your personal needs. Whether it's gardening, dancing, or swimming, finding activities that you love will help maintain your intrinsic motivation while addressing practical goals

Stop and think

Build a commitment pathway plan with setting realistic goals for yourself (if you are a trainee) or your clients (if you are a trainer) for the next 5 weeks. Take into consideration the above points.

Conclusions

Understanding the interplay between motivation and commitment is crucial for maintaining a consistent physical activity routine. Intrinsic motivation, driven by personal enjoyment and satisfaction, fosters a deeper, more enduring connection to exercise. In contrast, extrinsic motivation, such as rewards or social recognition, can provide the initial push needed to start. However, relying too heavily on extrinsic motivators can sometimes undermine intrinsic enjoyment over time.
For long-term success, especially for older adults, commitment is key. This involves not just starting but also sticking with physical activity through various strategies. Integrating intrinsic and extrinsic motivators—by aligning personal values with practical goals—helps build a robust foundation for sustaining physical activity. Setting realistic goals, creating a consistent routine, seeking social support, and adapting activities to personal preferences turn motivation into lasting habits.

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Quiz

1.

What is the primary difference between intrinsic and extrinsic motivation in the context of physical activity?

a) Intrinsic motivation is driven by external rewards, while extrinsic motivation is driven by personal satisfaction.
b) Intrinsic motivation comes from personal enjoyment and satisfaction, while extrinsic motivation involves external rewards or recognition.
c) Intrinsic motivation involves avoiding negative consequences, whereas extrinsic motivation focuses on personal values.
d) Intrinsic motivation is only relevant for professional athletes, while extrinsic motivation applies to everyone.

2.

Which of the following is an example of an integrated motivator for physical activity?

a) Exercising to win a cash prize.
b) Participating in a fitness challenge to earn a medal.
c) Walking daily because you value maintaining your independence and health.
d) Joining a gym to receive a membership discount.

3.

What is a potential negative effect of relying heavily on extrinsic motivators?

a) They always improve intrinsic motivation.
b) They can lead to a decrease in intrinsic motivation over time.
c) They make physical activity more enjoyable.
d) They have no impact on intrinsic motivation.

4.

Which of the following strategies is NOT recommended for maintaining commitment to physical activity?

a) Setting realistic and achievable goals.
b) Creating a consistent routine.
c) Relying solely on external rewards to stay motivated.
d) Seeking social support and exercising with friends.

5.

How can instrumental motivators influence long-term commitment to physical activity?

a) They help maintain motivation by focusing on immediate external rewards.
b) They are solely about personal enjoyment and do not affect commitment.
c) They provide tangible benefits like improving health, which can reinforce long-term engagement.
d) They undermine commitment by reducing personal satisfaction.

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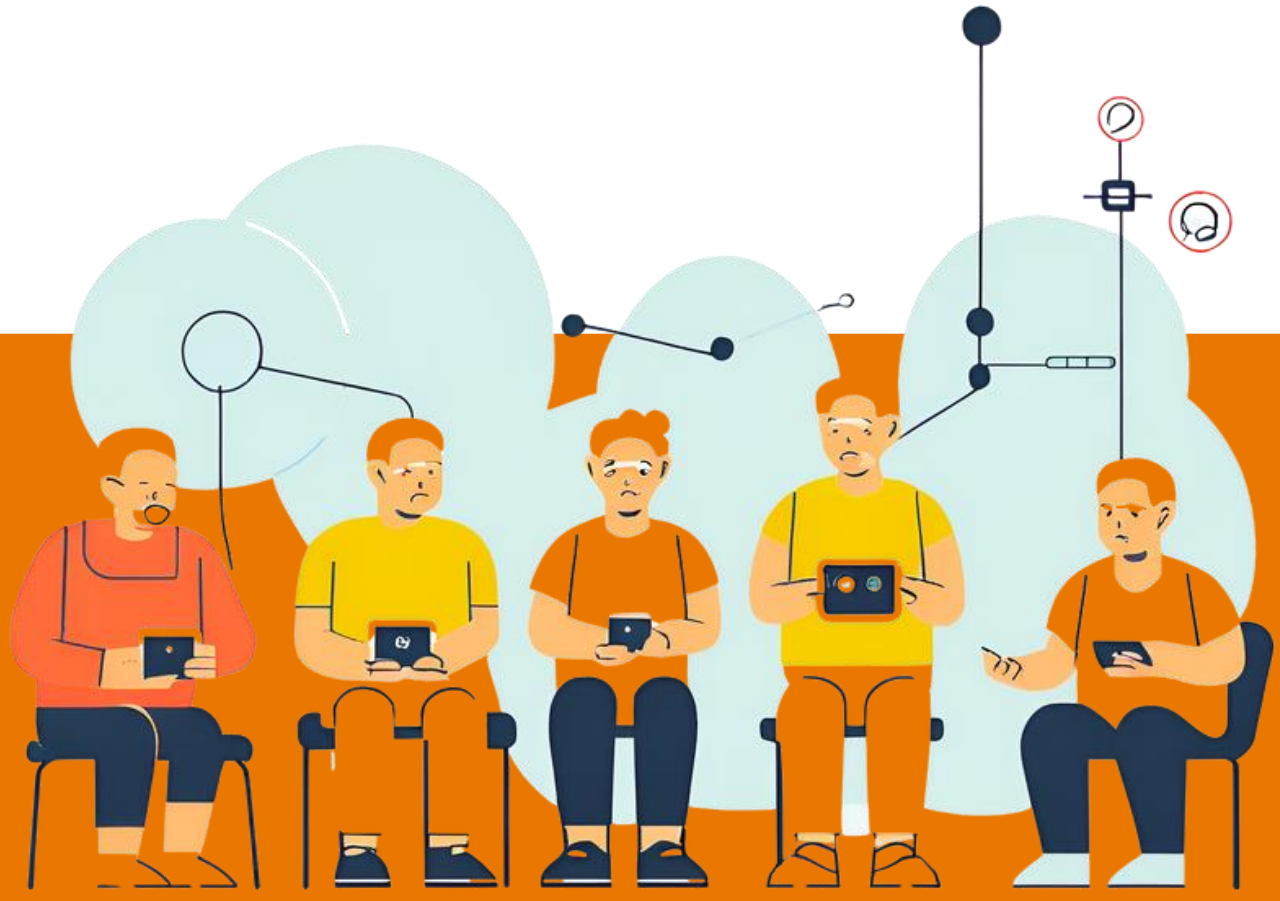
3. COMBINE PHYSICAL AND MENTAL WELL-BEING



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Overview	In this chapter, we will analyse how physical well-being is intimately linked to mental well-being. Through the integration of state-of-the-art techniques and therapies such as mindfulness, linked to training processes, encouraging results are achieved in aspects such as self-regulation, motivation, and inclusion. It is important to highlight how mental and emotional factors are linked to physical fitness or well-being in older adults. Understanding their mindset can help trainers better control and personalise training plans.
Objectives	• To understand how psychological variables interact with the efficiency of sports fitness and can serve as indicators of it. • Discover how multimodal training can boost muscle function in older adults. Learn how combining different types of exercises leads to better results and helps you create more effective training programs. • To deepen the knowledge of mindfulness as a valuable potential supplementary element of senior sport training. • To understand the functioning of the placebo effect and the hormones of happiness in the training process.
Learning Outcomes	• Understanding the interaction between psychological variables and physical activity in senior sports facilitation. • Knowledge of key concepts in applying multimodal and multi-component training programs for physical activities with older adults. • Implementing basic mindfulness techniques in training sessions with older adults. • Enhancing training programs by using psychological and physical metrics. • Promoting a holistic approach to facilitate the wellbeing of older adults in sports. • Advocating for the use of proven methods and techniques when training older adults.

3.1: Design of Multimodal Trainings

As a theoretical concept, multimodal trainings refers to a comprehensive approach that combines different types of exercise with the goal of improving both the physical and mental capabilities of older adults (Kumar et al., 2020). This type of training encompasses not only cardiovascular activities, strength training, and flexibility exercises, but also incorporates cognitive, as well as social, and balance components, which are fundamental for the well-being, safety and independence of seniors.

Some examples of Training Components for a Multimodal Approach:

1. **Physical and Cognitive Exercise:**
   - **Combined activities:** Walking while answering trivia questions

     For example:

     Trivia question:
     "What is the largest planet in our solar system?"

     

     Answer:
     Jupiter.

     This type of question engages the mind without being too complex, making it ideal for keeping older adults mentally active while they perform light physical activities like walking.

   - **Games involving movement:** Activities like basketball, where quick decision-making and coordination are required.

2. **Balance and Attention Training:**
   - **Balance exercises:** Performing yoga poses while following a breathing pattern or reciting a list of words.
   - **Simulation of daily tasks:** Practising everyday activities (like walking and talking (with another partner, reciting a poem, on the phone…) at the same time that require attention and motor control.

3. **Memory and Strength Development:**
   - **Exercise circuits:** Alternating between strength training stations and activities involving recalling sequences of numbers or words.
   - **Partner exercises:** One person performs a physical activity while the other remembers and repeats complex instructions.

     

     Example:

     ***Person A** is asked to perform a set of physical movements, such as: "Do 5 squats, 3 jumping jacks, and then touch your toes twice."*

Person B *observes, memorises the sequence, and after Person A completes it,* ***Person B*** *repeats the same instructions and performs the same movements in the correct order.*

This type of exercise challenges both physical abilities and memory, encouraging coordination and teamwork between the partners.

4. **Cognitive Stimulation Through Movement:**
   - **Dance:** Learning a dance routine that involves remembering steps and following the rhythm, improving both physical coordination and memory.
   - **Active board games:** Games that combine strategy with movement, such as playing "Twister" but integrating questions or mental challenges.

The **benefits of multimodal training** for the silver population are numerous. Firstly, it promotes cardiovascular health and musculoskeletal health, reducing the risk of falls and chronic diseases (Shahar et al., 2019). Additionally, it enhances functional capacity and quality of life, translating into greater autonomy and overall well-being (Graham et al., 2019). From a mental perspective, the variety of activities has been observed to stimulate cognitive function and emotional well-being, which are key elements in countering age-related deterioration.

The multimodal approach offers significant advantages over traditional unimodal training (meditation technique that invites you to focus your entire attention on the physical sensations of the body, trying to connect the body with the mind.), as it not only improves physical fitness but also stimulates cognitive function, potentially leading to additional benefits such as enhanced mental agility and improved quality of life. Furthermore, integrating different types of activities promotes greater motivation and adherence to the training program, making the experience more dynamic and engaging.

A **practical example for a multimodal training program** that could be implemented at a senior centre would include a combined session of light aerobics, resistance exercises, balance activities such as yoga, and group sessions to promote socialisation. For instance, a gym might offer a weekly “exercise in nature” class, where participants engage in walking with breaks to strengthen various parts of the body, followed by relaxation activities that foster social cohesion as well as physical well-being.

An **example of a multimodal exercise** could be the integration of physical exercise with personal exploration and cognitive development, where participants take a reflective walk outdoors while contemplating and discussing four key aspects of their lives: what they love, what they are good at, what the world needs, and what they can do to gain rewards.

Exercise Description:

1. **Outdoor Walk:** Organise a walk in a park or natural setting. Physical movement stimulates circulation and attention, creating a conducive environment for reflection.
2. **Small Group Reflection:** Divide participants into groups of three or four. Provide guided questions related to each of the four aspects of IKIGAI:
   - *What do you love to do?* (Your passion)
   - *What are your skills?* (What you're good at)
   - *What does the world need?* (What is meaningful)
   - *What can you do to earn rewards?* (What gives you satisfaction)

3. **Simultaneous Physical Exercise:** As they walk, participants discuss and note their thoughts in small notebooks. Alternatively, they can use a note-taking app on their phones. This exercise combines physical movement with cognitive processing.
4. **Closing:** At the end of the walk, gather to share reflections and insights. This reinforces learning and fosters connection between participants.

3.2: Design of Multicomponent Training

As a theoretical concept, multicomponent training focuses on incorporating multiple, diverse fitness components, such as strength, endurance, balance, and flexibility, into a single exercise program (Fiatarone et al., 2019). This approach is particularly relevant for older adults, as it addresses different dimensions of fitness crucial for maintaining functionality and autonomy in daily life.

Among the benefits of multicomponent training there is to highlight the improvement in muscular strength, which is vital for performing daily activities; as well as the increased aerobic endurance, which facilitates prolonged tasks (Tschentscher et al., 2020). Furthermore, this type of training has also been shown to have a positive impact on fall prevention and improving balance, factors that are especially important in the elderly population to avoid injuries and maintain independence.

A practical example of a multicomponent training program could be the implementation of a plan that integrates sessions combining weightlifting exercises, pilates classes to improve flexibility and stability, and fast group walks to enhance cardiovascular endurance. In a senior centre, a series of sessions could be designed to incorporate all these elements in a single day, thereby fostering balanced training.

Differences between multimodal and multicomponent training:

1. **Multimodal Training:**
   - **Objective:** Integrate different types of training that address both physical and cognitive aspects, promoting simultaneous improvement in both areas.
   - **Components:** Includes activities that combine physical exercises with cognitive stimuli. For example, walking while solving puzzles or performing balance exercises that require concentration and memory.

2. **Multicomponent Training:**
   - **Objective:** Alternate different types of physical exercises to improve various motor skills.
   - **Components:** Includes a variety of exercises, such as aerobics, muscle strengthening, and balance training, without necessarily involving a cognitive component.

In conclusion, the multimodal approach emphasises the importance of combining physical exercise with activities that stimulate cognitive function. This not only helps improve physical performance but also enhances mental abilities, contributing to more comprehensive development.

In contrast, the multicomponent approach focuses on the variability of physical exercises. The goal of multimodal training is to merge physical and cognitive skills in the same context, whereas

multicomponent training focuses on varying the types of physical exercises. More information on this topic can be found in the article: Polonyi, A., Orosz, K., & Kovács, G. (2020). *The possibility of achieving a long and meaningful life. In Preventing and managing crisis.*

3.3: Mindfulness during physical exercise

As a theoretical concept, the practice of mindfulness during physical exercise involves being fully present and aware of the sensations and thoughts that arise during physical activity (Sánchez Iglesias, 2021). This practice not only enhances the exercise experience but can also help reduce stress and anxiety, fostering a more positive and receptive mental state.

The word *Mindfulness* means "full attention or awareness". According to Jon Kabat-Zinn, a pioneer in the field of mindfulness who developed the Mindfulness-Based Stress Reduction (MBSR) program at the University of Massachusetts in the 1970s, it is defined as “paying attention intentionally to the present moment without judgement.” His work popularised and formalised the practice of mindfulness within the medical and mental health context, introducing meditation and full-attention techniques to help people manage stress, pain, and other conditions.

Mindfulness can thus be considered a form of self-regulation of attention, a way of becoming aware of reality that allows us to consciously work with the emotions we experience, integrating and accepting them.

Kabat-Zinn laid out a series of recommendations to practise mindfulness effectively (Vargas Delgado, 2020). These principles could be advocated by trainers, repeated, and represented during sports activities and classes:

- **Non-judging**: I observe the present experience without judgement, accepting each moment as it is, without labelling experiences as good or bad.
- **Patience**: I understand that things happen in their own time, without rushing or seeking immediate results.
- **Beginner's mind**: I maintain an attitude of curiosity and openness, approaching each situation as if it were the first time, allowing for new perspectives and learning.
- **Trust**: I trust in oneself and one’s inner wisdom, as well as in the mindfulness process. Also, trust that you can handle whatever arises in your mind during meditation.
- **Non-striving**: I allow things to be as they are, without forcing changes or seeking specific outcomes, which can reduce tension and anxiety.
- **Acceptance**: I accept reality as it is in the present moment (this does not mean resignation), but rather recognizing things as they are to respond more effectively.
- **Letting go**: I release expectations, attachments, and aversions, freeing oneself from the suffering caused by wanting things to be different than they are.
- **Gratitude**: I cultivate an attitude of gratitude for what we have, focusing on the positive even when facing difficulties.

- **Generosity**: I practise generosity and compassion towards oneself and others, fostering a sense of connection and mutual support during challenging times.
- **Commitment**: I establish a regular practice and commit to it. Consistency is key to developing mindfulness and reaping its benefits.

The benefits of incorporating mindfulness into physical exercise are vast. Studies have documented that practising mindfulness can increase satisfaction and reduce the perception of pain, while improving motivation to maintain an exercise routine. Moreover, this practice promotes self-care and emotional well-being, two fundamental aspects of mental health in the silver population (Sánchez Iglesias, 2021).

The application of mindfulness in the sports realm has demonstrated multiple benefits, both psychologically and physically. Among the most notable is the improvement in concentration and sustained attention, crucial factors for sports performance. Athletes who practise mindfulness show a stronger ability to stay focused on their goals, which helps them cut down on distractions from both inside and outside that might hurt their performance. This practice primarily helps by lowering stress and anxiety—common emotions that can often hold athletes back from fully engaging in physical activities (Gooding and Gardner, 2009).

Another key benefit of mindfulness is improved concentration and attention, which are essential in sports for enhancing technique and reducing the risk of injuries. The Body Scan technique—a form of mindfulness—stands out here, as it guides individuals to focus on each part of the body, helping them identify and release tension. This practice is especially helpful for boosting sports performance and sustaining motivation over the long term (Sánchez Iglesias, 2021).

Additionally, mindfulness fosters an attitude of acceptance and curiosity toward physical experience, which can transform the perception of sports from an obligation to a pleasurable activity. This perspective is especially valuable for older adults, who may experience psychological and physical barriers to sports practice. By reducing expectations and judgement, mindfulness facilitates a more positive relationship with physical activity, increasing the likelihood of it becoming a regular habit.

A practical approach to integrating mindfulness could involve starting a fitness session with mindfulness exercises, which include deep breathing and an intention to bring mindfulness to every movement. It is about exploring the action of movement on each part of the body, observing their development and outcomes. This promotes a deeper connection with their physical and emotional well-being. Recommended Websites offering pre-made Mindfulness Exercises:

1. Mindful.org: This site offers a wide variety of articles, exercises, and guides on mindfulness. It includes guided meditations, practical exercises, and resources for trainers.
2. Headspace: While primarily an app, the website features free content, including meditations and mindfulness resources. It also offers guides for facilitating sessions.
3. The Mindfulness Project: They provide courses and resources on mindfulness, including practical exercises that trainers can adapt for their classes.

Another practical example could involve motivating individuals over 65 to engage in sports through mindfulness. Group walking itineraries could be arranged. Before starting the walk, participants could

engage in a brief Body Scan session, led by an instructor, to help them tune into their bodies and release any tension or stiffness. During the walk, they would be encouraged to focus on their breathing pace and physical sensations, such as the contact of their feet with the ground and the swinging of their arms.

This approach not only enhances body awareness but also transforms the walk into a meditative and relaxing experience. Participants report feeling more connected to their environment and their own bodies, increasing their enjoyment of the activity and their motivation to participate regularly. This type of practice is especially beneficial for those who may view exercise as a burdensome task, as mindfulness helps them discover a new way to interact with sports.

3.4: The happiness hormones in sports

As a theoretical concept, the "happiness hormones," which include endorphins, serotonin,dopamine, and oxytocin, play an important role in the relationship between exercise and mental well-being. Physical activity has the capacity to increase levels of these substances in the body, which, in turn, can enhance mood and the sense of wellbeing (Mikkelsen et al., 2022)

> ***"When one feels happy, it is physically impossible to feel depressed or anxious. In the human body, different forms of well-being are fueled by different neoendorphins" (Oláh, 2018).***

The so-called happiness hormones are as follows:

- **Dopamine** secretion is fueled by activities that support psychological well-being, such as achievements, performance, and setting motivating goals. This hormone triggers the learning process in the brain, allowing us to adapt to situations differently.
- **Oxytocin** is produced when we engage in activities that support social well-being, such as spending time with loved ones or being part of a supportive and positive team.
- **Endorphin** is secreted during activities that support emotional well-being, such as practising sports and joyful movement.
- **Serotonin** is produced when we engage in activities that make us feel connected to spiritual well-being, such as being in nature or feeling connected to something greater than ourselves. Did you know there is a link between vitamin D deficiency and low serotonin production? Vitamin D is also known as the "sunshine vitamin" because our skin produces vitamin D from cholesterol when exposed to sunlight.

The benefits of engaging in regular physical exercise in the silver population not only enhances physical health, but is also highly associated with a decrease in symptoms of depression and anxiety. Endorphins, released during exercise, are known for their analgesic effect and their ability to induce feelings of

euphoria (Mikkelsen et al., 2022). Furthermore, regular physical activity helps maintain levels of serotonin and dopamine, key neurotransmitters in the regulation of mood and emotional behaviours.

A practical example of the aforementioned is a program that combines moderate aerobic training, such as walking or swimming, with recreational activities that promote socialisation, and can help increase the release of happiness hormones in older adults. For instance, organising group competitions that also integrate music and celebrations could facilitate an environment where these positive chemical effects are maximised.

It is intended that trainers purposefully and strategically "hack" the happiness hormones by means of a specific activity that increases the secretion of a certain neoendorphin. To achieve this goal, here are some practical and direct tips:

1. **Dopamine**
   - Set small, achievable goals: Completing short-term objectives during training, like increasing repetitions or running a specific distance, releases dopamine when you celebrate those achievements.
   - Variety in exercise: Regularly change up your routine (new exercises or activities) to keep things interesting and boost dopamine levels.
   - Listen to motivating music: Create an energising playlist for your workout, as music you enjoy can elevate dopamine.

2. **Endorphins**
   - Cardiovascular exercise: Activities like running, swimming, or cycling, especially at moderate to high intensities, trigger the release of endorphins.
   - High-Intensity Interval Training (HIIT): This form of exercise can significantly increase endorphin levels, enhancing the sense of well-being.
   - Laughter and social interaction: Incorporating group games or activities into your exercise routine can encourage laughter, which also releases endorphins.
3. **Serotonin**
   - Exercise outdoors: Exposure to sunlight while exercising (like walking or jogging in a park) helps boost serotonin levels.
   - Yoga or meditation routines: These practices not only stimulate physical activity but also contribute to an increase in serotonin.
   - Proper nutrition: Be sure to consume foods rich in tryptophan (such as bananas, nuts, and seeds) before or after exercise, as they support serotonin production.
4. **Oxytocin**
   - Group exercises: Engaging in group physical activities, like dance classes or team sports, promotes social bonding and oxytocin release.
   - Post-exercise massage: Receiving a massage or doing partner stretches can stimulate oxytocin production.
   - Gratitude and support: Creating a supportive and encouraging environment in group exercise sessions can foster a sense of belonging and increase oxytocin levels.

Tips and Recommendations

How to Use Multimodal Training Programs for Older Adults:

Start by integrating an interdisciplinary approach that includes physiotherapists, trainers, and mental health professionals to provide well-rounded care for older adults. Tailoring the training to meet individual needs is essential; conduct initial assessments and monitor progress regularly, adjusting activities every 4-6 weeks. Including engaging elements like recreational activities will make sessions enjoyable and help maintain participants' motivation and commitment. Simple mindfulness exercises like Body Scan and mindful breathing can further support focus and relaxation, enhancing overall satisfaction.

Pay Attention to the Following…

Ensure assessments cover a wide range of factors: physical (strength, endurance, balance, mobility, flexibility) and cognitive (memory, attention, executive function). Track enjoyment and motivation through self-report questionnaires, and maintain an adherence log for regular participation. Additionally, create a calm, reflective atmosphere that encourages focus and well-being in every session. Educating participants on the positive effects of exercise on happiness hormones—like endorphins, serotonin, and dopamine—can boost their motivation, especially when combined with group discussions and testimonials.

Combining with Smart Technology

Incorporate technology to enhance the experience. Use performance-tracking apps to help participants track their achievements and stay connected to their progress. Physical assessments (e.g., handgrip dynamometer, TUG test) and cognitive assessments (e.g., MMSE, Trail Making Test) provide valuable insights and can be conducted using simple tools. Apps and wearables that monitor mood or track activity levels can also reinforce motivation by giving feedback on the benefits of both physical exercise and mindfulness practices.

Synchronous & Asynchronous, Online & Offline Training

A blended approach that includes group and individual activities, both online and offline, can accommodate different preferences and schedules. Group sessions can foster a sense of community, while at-home options provide flexibility and continuity, encouraging long-term engagement with the program.

Questions to reflect on:

1. How can the integration of social and balance components into a multimodal training program enhance the overall wellbeing and independence of older adults, beyond the physical benefits of cardiovascular and strength exercises?
2. In what ways can interdisciplinary collaboration among professionals (e.g., physiotherapists, trainers, and mental health specialists) enhance the effectiveness of multicomponent training programs for

older adults? How might technology, such as performance tracking apps, further support these efforts?

3. What are the potential challenges and benefits of training physical instructors in mindfulness techniques, and how might this training impact the overall effectiveness and acceptance of mindfulness-integrated exercise programs for older adults?
4. How can the intentional design of exercise programs that focus on increasing the release of happiness hormones (endorphins, serotonin, and dopamine) impact the mental and emotional wellbeing of older adults? What types of activities might be most effective in achieving this?
5. How can the practice of mindfulness, such as the Body Scan technique, change the way older adults perceive physical activity and help them maintain long-term motivation?

Conclusions

Multimodal training for older adults combines physical activity with social and emotional benefits, creating a pathway to a fuller, more vibrant life. By incorporating mindfulness, participants find joy and motivation in movement, while the boost from happiness hormones like endorphins and serotonin supports both body and mind. This holistic approach empowers older adults to stay active, engaged, and fulfilled.

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Quiz

1.

Which of the following is a key component of multimodal training that is essential for the safety and independence of older adults?

a) High-intensity interval training

b) Social, cognitive and balance components

c) Only cardiovascular exercises

d) Strict weightlifting routines

2.

What is the primary goal of multicomponent training for older adults?

a) Focusing solely on improving cardiovascular endurance

b) Enhancing only muscular strength

c) Integrating multiple fitness components to maintain functionality and autonomy

d) Encouraging older adults to compete in high-level sports

3.

Which of the following best describes the practice of mindfulness during physical exercise?

a) Ignoring bodily sensations to push through the exercise

b) Focusing on future fitness goals during workouts

c) Being fully present and aware of sensations and thoughts during physical activity

d) Exercising with the sole aim of burning the maximum number of calories

4.

Which hormones are primarily associated with the mental wellbeing benefits of physical exercise?

a) Cortisol and adrenaline

b) Estrogen and testosterone

c) Endorphins, serotonin, and dopamine

d) Melatonin and insulin

5.

Which of the following benefits is most directly associated with the practice of mindfulness in sports for older adults?

a) Increased competitive drive

b) Improved technical skills without the need for practice

c) Enhanced concentration and reduced stress

d) Faster physical recovery from injuries

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4. POSITIVE PSYCHOLOGY

Written by Anna Linda Orosz
(WEOPLE)

Overview	In this chapter, we will look into the mental and psychological aspects behind sports practice to enhance happiness, joy, and positive emotions during training activity, thus promoting active and sporty ageing. There is growing evidence suggesting that a combination of physical training with positive psychology, and a conscious enhancement of happiness yields numerous advantages for sports practitioners. What's more, the resulting benefits can transfer to other areas of a person's life. Trainers will be reading about scientifically proven, hands-on strategies that they can build into their work with seniors to boost happiness related to training. This is an invitation to take a quick immersion into some of the prominent positive psychology models and discover how scientists merged applied sports psychology and positive psychology. Trainers will be guided through proven, hands-on, and easy-to-implement approaches to boost motivation and a positive mindset while working with older students.
Objectives	• Inspire sports trainers working with senior citizens to apply the results of positive psychology in senior training to improve their students' overall experience during exercise; • Amplifying the value and meaning of trainers' work by helping to turn sports classes into opportunities to promote mental and psychological well-being and happiness skills among older adults; • Raise awareness and understanding around the key drivers of happiness, and the role of this in fuelling self-confidence, self-efficacy, and engagement.
Learning Outcomes	• Information about the relevant scientific findings and research results of positive psychology applicable in the area of sports; and knowledge about the key concepts and pillars of happiness-boosting models; • Awareness about the possibility of adding further value and meaning to sports training by enhancing senior students' mental state and well-being through happiness skills; • Curiosity and motivation to implement new training methods based on positive psychology; ability to design and enrich sports classes by basic ´happiness interventions´.

4.1: Tuning in – a secret binder behind the performance

What empowered Diana Nyad to swim 177 kilometers in 7 hours and 57 minutes from Cuba to Florida in 2013, without a shark cage? Was it only about muscle power, willpower, perseverance, talent, luck, maybe obsession? Surely all these are essential, but probably would not be enough without the right mindset, rewarding feelings, and emotional balance. Sportsmen and psychologists know it well. Although Ikigai55+ is not about competitive or professional training but a senior lifestyle sport, in our view, commitment to a persistent physical activity requires a bit of all the above “ingredients” even at a hobby level.

On the other hand, sports can be a great means for nurturing positive psychological traits such as resilience, mental toughness, or grit, which can reach beyond the realm of physical training, improving people's lives in general.

4.2: Positive psychology in senior sports Positive ageing

To expand the view of trainers dealing with older adults, we would like to drive attention to a new approach to ageing, called positive or successful ageing. This promotes that at any age, even in later years, individuals are responsible for their quality of life and can optimize their ageing experience. It embraces empowerment and positive experiences as key elements. along positive mindset and conscious actions to enjoy later life. This approach introduces new quality features into the ´ageing vocabulary´, such as *optimal, successful, productive*, besides active, and healthy (Bar-Tur, 2021).

Spotlight on senior sports from the perspective of positive psychology

Once someone is already engaged in regular physical activity, the positive results speak for themselves. At a psychological level, we can mention improved self-esteem, the secretion of happiness hormones (endorphins), feelings of achievement, and positive emotions (energy, enthusiasm, vitality in the case of active sports, and feelings of peace and calm in the case of slower, mindful physical practice). What's more, the fact that physical exercise reduces depression and stress is clinically proven. (Lyubomirsky, 2008) Despite all this, as trainers know well, physical activity doesn´t come easy for everyone. This is especially true in the case of older people who have never practiced sports earlier in their lives.

> ***Some people consider themselves as´anti-talents´ (“I have never been good at any sport”), others are withheld by concerns (“I am not young anymore, my body is different. I don´t want to get injured”; “I don´t want to look like an old fool”), habits (“I am not a sporty person”), or reasons (“I have never enjoyed it”; “I can´t catch up with young people at class and I hate feeling out of date”).***

In this sense, trainers' ability to motivate, and enhance a positive mindset, rewarding emotions, and positive thoughts associated with exercising can be real deal breakers. This is where the science of happiness can make a difference.

The new Millennium brought a new paradigm in behavioral science, Positive Psychology. It focuses on understanding the different factors and conditions ensuring people´s optimal functioning, well-being, and happiness. In the past decades, scientists have been exploring strategies to reinforce the state of happiness. Practicing sports has been identified as one of the possible strategies, however, the positive mental and emotional states resulting from physical activity can be further enhanced by applying specific methods while working with sports practitioners. Positive psychology in sports is defined as the science of happiness and strength (Carr, 2011, in Mann and Narula, 2017).

4.3: Benefits of increasing happiness through physical exercise

If you ask people what happiness means to them, each person will give a unique answer; nevertheless, there are common patterns. Scientists define happiness 'in terms of frequent positive affect, high life satisfaction, and infrequent negative affect.' (Lyubomrisky et al., 2005.a, p. 115). Positive and negative effects represent the two poles of emotional experience, the extent to which an individual can experience pleasant or unpleasant emotions.

> ***It is also known that 40 % of our perceived happiness level depends on our intentional actions, while the actual circumstances influence only 10% of the happiness level. (The remaining 50% depends on our genetics and biology) (Lyubomirsky, 2007).***

This means that by focusing on that 40% what people can deliberately influence, important positive changes can be attained. Changing one's intentional activities may provide a happiness boosting potential that is at least as large, and likely much larger, than changing one's circumstances" (Lyubomirsky et al., 2005.b, p. 123). Actors of healthy lifestyle interventions, including sports and fitness, are considered potential catalysts of such transformational change. (Lianov et. al., 2019).

The usefulness of merging positive psychological considerations into sports trainers´ work is further enhanced by interesting scientific findings:

- Research has shown that happy individuals exhibit greater resilience, higher level of activity, energy and flow, improved health, and better performance; they tend to be more cooperative, prosocial, and cultivate better relationships and are more likely to have greater self-control, and emotional regulation and coping abilities. Moreover, experiencing happiness makes it difficult to feel negative emotions such as worry, fear, or anxiety. (Lyubomirsky & Sheldon, 2005.b; Lyubomirsky, 2008).
- According to the Upward Spiral Theory of Lifestyle Change, the volume of pleasant emotions (positive affect) experienced during exercising creates nonconscious motives for continuing the activity, and it grows stronger over time. (Cappellen et.al. 2019)
- The Broden and Build Theory emphasizes the importance of experiencing positive emotions (PE) (e.g., joy, gratitude, interest, pride, serenity) during training, for its preventive power against overly rigid attitudes towards physical exercise, which could hinder long-term motivation. PE also facilitates the establishment of a sustainable and harmonious passion for exercising, enhanced by more flexible and creative thinking. (Fredrickson, 2013, in Cappellen et.al. 2019)
- Last but not least, researchers found a connection between happiness and engagement too. (Fisher, 2010; Schaufeli, 2017)

All these points in the direction that enhancing happiness during training sports is a desirable part of trainers' skill set.

4.4 Infusing positive psychology into senior training: strategies & examples

Considering age-related happiness patters – *"Boosting eudaimonic happiness"*

The two show different evolution tendencies depending on age. With growing older, the former usually increments, while the latter tends to decrease. (Ryff, 2008) What does this bring to the table for sports trainers? A call for enhancing eudaimonic experiences.

> ***There are two distinct approaches to happiness: augmenting(1.) Hedonic well-being (focused on pleasure, enjoyment, and avoidance of pain), and (2.) strengthening Eudaimonic well-being (rooted in meaning, purpose, and personal growth).***

How to apply in practice:

- To increase the feeling of empowerment and productivity, trainers can encourage students to contribute somehow to the sports class. E.g.: they can search for and recommend pieces of music that carry a special meaning to their generation; they can look for inspiring quotes that can be distributed at the end of the sessions. Launching a peer-mentoring system could be a good idea too, inviting experienced students to become volunteer mentors for the newcomers, helping them to feel more at ease in the group, introducing them to the others, and showing them around the facilities.

Housing sports psychology and positive psychology

The intersection of these two psychological realms contains three key areas:

a.) **Improving Cognitive Perceptions** - *Becoming the Better Me'*

How to apply in practice:

- Incentivize positive affirmations (E.g. *"I am getting better and better". "My body, mind, and soul get stronger with each exercise"*);
- Build positive visualizations into the exercise plan (E.g. "*Imagine that you are doing this dance move. Visualize yourself enjoying it and flowing with it, independently of how perfectly you master it. See yourself exploring with joy, and believing in yourself.")*
- Enhance mindfulness and body awareness (E.g. Tune in with conscious breathing exercises at the beginning of the class, or do a guided relaxation at the end of the class. Pay attention to reinforce sensory perceptions.)
- Facilitate feelings of gratefulness (E.g. *"Be grateful to your faithful companion, your body. Acknowledge that all your precious cells are working for you, serving you night and day."*

b.) **Boosting Positive Emotions** - *´I feel good, I know that I would´*

How to apply in practice:

> ***"When you commit with exercise forms that you genuinely enjoy, you will end up being more active and efficient". It is a scientifically proven fact.***

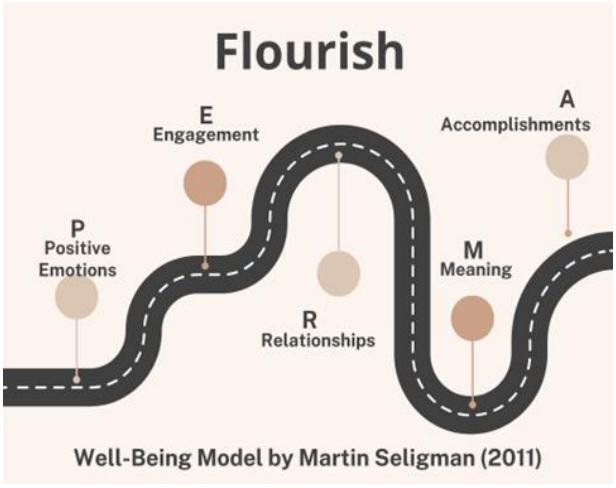
- Positive emotions can be triggered by sensory inputs too, for example, essential oils, visual triggers (smiles, or training in a nice environment or nature), harmonious soundtracks, or touch (e.g. walking on grass, sand, or with the feet in the water).
- Incentivize senior students to consider enjoyability as a guiding principle when setting daily exercise goals, for example for home practice. Scheduling regular pleasant events in daily life will boost long-term motivation and engagement. ´Prioritize positivity´ instead of focusing on mere goals (e.g. weight loss).
- You can help your students with positive prioritization, for example, by sensitization. Researchers got promising results in this by showing short "news articles" consisting of proven facts about the power of positive emotions during training and in life. ´Participants were subsequently asked to list all the activities they had "on deck" for the coming Sunday, and later rated the pleasantness of each. Relative to the control group, the top five activities reported by those induced to prioritize positivity (by articles) were more pleasant; they also reported greater savouring and more positive experiences. (Catalino et.al., 2016, in Cappellen et.al., 2019).
- It is very important though, to warn students that prioritizing pleasant experiences does not equal chasing positive affect; deliberately trying to maximize current positive emotions can lead to excessive expectations, which can backfire.

c.) **Resilience, Grit, and Mental Toughness** - *´Continuous development and silver lining'*

How to apply in practice:
The best way to teach mental toughness is by authentic example. Trainers should develop their ability to

keep calm under pressure, use positive humour to reduce stress, and promote the value of accepting problems as a natural part of everyday life (regardless of age).

Bouncing back from adversities and learning from them is a virtue. Such moments should be celebrated as precious achievements along the growth path. Be perseverant in your self-development, and keep an open mind to welcome whatever form it takes (physical, emotional, or mental)' Storytelling (sharing personal experiences) can be good way to pass these messages.



Well-Being Model by Martin Seligman (2011)

Triggering, expanding and prolonging happiness

Martin Seligman, father of positive psychology, called the highest level of mental well-being **"flourish."** (Seligman, 2011) In the PERMA model, he described 5 key strategies that anyone can learn and use consciously. (Seligman, 2011) ´P´ stands for positive emotions, ´E´ stands for engagement (Flow), ´R´ for close and safe Relationships, ´M´ for meaningfulness, and ´A´ for accomplishments.

How to apply in practice:

We have already seen examples of enhancing positive emotions and meaning, while in other chapters of this Handbook, we cover the social and achievement aspects in detail.

- Let´s talk about engagement, which is very close to experiencing Flow. The "father" of the flow concept, Csikszentmihalyi Mihály, highlighted eight features of this state:

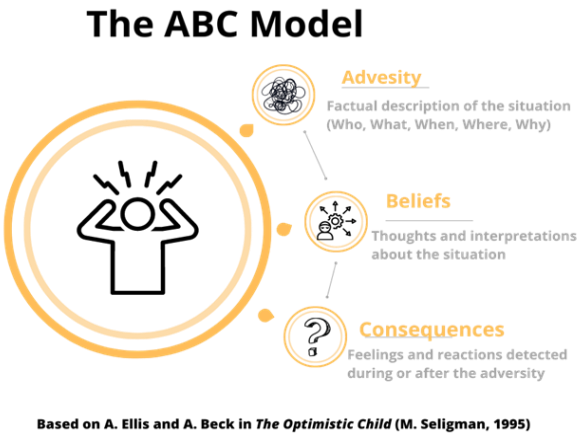
> *"Complete concentration on the task";*
> *"Clarity of goals and reward in mind and immediate feedback";*
> *"Transformation of time (speeding up/slowing down)";*
> *"The experience is intrinsically rewarding";*
> *"Effortlessness and ease";*
> *"There is a balance between challenge and skills",*
> *"Actions and awareness are merged, losing self-conscious rumination";*
> *"There is a feeling of control over the task".*
> *(Oppland, 2016)*

- Experiencing flow involves knowing what activities or work tasks inspire such feelings within us. To stimulate flow within physical exercise, it is essential that the trainer senses and hits the right

difficulty level that matches each student´s skill level (not too easy, not too difficult). This favors a more personalized approach. On the other hand, self-awareness, honesty, and critical thinking are necessary for the students too. Trainers should encourage them to speak up and express their thoughts/needs/status, without shame or fear of social comparison. *´There is no good or bad, just a development process.´ ´There is no such thing as always, just here and now.´* Furthermore, it's advisable to establish a "time bubble", when we focus only on doing one thing. E.g. Putting the phones to silent mode.

Incentivizing optimistic thinking patterns

Albert Ellis and Aaron Beck elaborated a practical model, called the "ABC model", which can be used to improve the way of thinking and make it more optimistic. It guides us through the 3 layers of an experience - external circumstances, thoughts, and emotions- thus facilitating a better and more realistic understanding, instead of following automatic - potentially pessimistic - thinking patterns. Let´s see how it works.



Based on A. Ellis and A. Beck in *The Optimistic Child* (M. Seligman, 1995)

> ***E.g. "My young years are over, no surprise, I failed."- There is a pessimistic interpretation here, considering the root cause as something permanent and unchangeable. The optimistic version would be "Although I am not young anymore, I can still learn new things and I can improve".***

Another example*: "I knew, I wouldn´t make it to 5 km. My trainers should have known it better"* - This is finding an external person or cause to blame only, instead of looking for internal causes as well, which would enhance the perception of control "*I should have told my trainer that I haven´t been sleeping well in the past days, I could have aimed for a shorter distance today."*

How to apply in practice:

Trainers can recommend to their students the application of the ABC model, as an action plan to reframe the negative experience.

For this, (1.) we have to focus on describing the facts, black and white, about the unpleasant experience (who, what, when, where, and why), (2.) then identify our thoughts and interpretations related to the situation, (3.) at last depict the consequences (feelings and reactions during and after the unpleasant happening) (Seligman, 1955).

Tips and Recommendations

- Trainers should give importance to being authentic, first, they should try out the new methods themselves, and gain personal experience with them. This way their example and messages will be more inspiring and powerful.
- Aim for small steps, and choose only one technique for each session. The more, the merrier is not always true.
- Trainers can and should ask for feedback from the participants about their impressions and experiences regarding the new elements introduced into the training design. It will give you more confidence, and a sense of achievement, and help to finetune your strategy.
- To incentivize an improved experience while doing individual training enhanced by smart wearables, trainers can suggest their students write relating to their training experiences:
    - gratefulness diary
    - positive reassuring self-affirmations
    - create a list of positive training priorities
    - do ABC-journaling when difficulties occur, to develop optimism

Questions to Reflect on

- Which of the above techniques do I apply already, maybe unconsciously, as a trainer during classes?
- Which of these techniques feels most powerful and joyful to me?
- How can I visualize a happier, more engaging class with my older students?

Conclusions

Positive ageing encounters various components that point beyond health and activity. Meaning, empowerment, optimal life experience, joy, and responsibility-taking are also essential parts of it. Positive psychology provides new insights and proven strategies to enhance such aims in practical ways during sports activity. We hope that trainers found useful tips and inspiring concepts in this chapter to enrich their work with senior sports practitioners, adding value and meaning to their professional aspirations as potential catalysts of well-being and happy, successful ageing.

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Quiz

1.

Which of the following form core quality features of a successful, positive ageing approach?

a) Empowerment of senior citizens, and responsibility-taking for personal well-being
b) Enhancing the perception of a productive and meaningful life conduct
c) Possibility of embracing optimal ageing experience, including joy
d) All the above

2.

Which pillar of Seligman´s PERMA Model includes the following happiness-boosting strategy? "Pleasurable life experiences, including sensory triggers (E.g. delicious, healthy food, listening to joyful soundtracks during physical exercise, connection with beauty for example by exercising in nice outdoor spots in nature)"

a) Engagement and Flow
b) Achievements
c) Positive emotions
d) Meaningfulness

3.

To what extent can an individual influence his/her level of happiness through intentional acts, including, for example, physical exercise?

a) 10%
b) 25%
c) 40%
d) 50%

4.

How does ageing affect the two main well-being experiences, Hedonic and Eudaimonic happiness?

a) Eudaimonic well-being increases and Hedonic well-being declines
b) Hedonic well-being increases and Eudaimonic well-being declines
c) Both improve
d) Both decline

5.

What does the Upward Spiral Theory of Lifestyle Change drive the attention of trainers to?

a) The harder we focus on augmenting positive emotions during physical exercise, the more counterproductive it becomes.
b) The volume of positive emotions experienced during physical exercise creates subconscious motives for continuing the activity.
c) The motivational power of experiencing positive emotions during sports activity builds up and grows over time.
d) All the above.

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5. GAMIFICATION

Written by Anna Linda Orosz
(WEOPLE)

Overview	In this chapter, we delve into the realm of game-thinking to discover how trainers can use it to engage and motivate their students more, what types of gamified training design solutions lend themselves for everyday life implementation, and what the most important implications of gamified training solutions are in the case of senior sports practitioners. We will start by introducing the concept of gamification and its evolutionary pathway from the past up until the present; by now, certain types of gamification are commonly spread in fitness and physical exercise. Next, we will look into the ´anatomy´ of gamification to help trainers understand the key drivers of motivation in a gamified approach, giving special attention to strategies (game mechanics) applicable in a regular, face-to-face training scenario. At last, we share a few insights from scientific research to help trainers better understand the possible bottlenecks of gamified training solutions in the case of elderly students, and provide tips to overcome them.
Objectives	• Give trainers a concise but complex, 360 degrees-insight into the gamification concept as a potential method to apply in their daily work; • Enrich the training design, implementation, and experience with a new approach that can lead to new, positive emotions and states of mind during sports practice; • To enhance the motivation and engagement of senior sports practitioners during and in between training by building on a combination of digital and analog gamification solutions.
Learning Outcomes	• Familiarity with the concept of gamification applicable in training. • Knowledge about the key motivational elements of gamification (intrinsic and extrinsic). • Curiosity and confidence to implement gamification deliberately, when training older adults. • Ability to plan simple gamification interventions to bring added value, efficiency, and/or engagement factors to physical exercise. • Ability to merge digital and analog gamification elements focused on senior practitioners.

5.1: Tuning in – Homo Ludicus

Sports lovers know it, challenging ourselves, competing, winning, and losing is part of our life, and what's more, it can be quite fun. Scientists say it, playing overarches human history and going beyond it. It represents an essential part of social life even among animals. Playing teaches how to cooperate in a team, how to take roles and follow rules, and how to interact with each other; it has evolutionary importance (Dalton & Luongo, 2019). Nevertheless, the systematic and purposeful utilization of playing in non-game contexts is a human "invention". Just think about football. Did you know that the Mayan and Aztec cultures played an early version of football already around 1400 BC? The game had religious-political-cultural importance back then. (Some things don´t change, so it seems.) Yet, it was not until the last decade that the application of playfulness became an emerging trend in various areas of professional life, as a pillar of behavior architecture utilized to shape and influence people toward the desired behavior choices. One of the primary fields where game-thinking is commonly used is sports and fitness.

> ***Applying game-thinking in your training design can be a value add enhancing your efficiency and improving your and your student´s training experiences. We suggest it to your attention as a potential ally or tool to spice up your classes.***

5.2: Theory, game thinking & gamification, a different approach to training motivation

When and how did game thinking become a methodological concept?
It might be surprising, but already at the beginning of the XX Century. One of the first documented mass attempts to apply a gamified approach took place in the 1910s when scout organizations introduced game mechanisms (badges and ranks - leaderboards) to make education and physical activity more fun. (The HRD, 2014) By the 1980s gamification measures started to appear more often, and penetrated the area of physical education.

What does the concept of gamification exactly mean?
Game thinking. It is an umbrella term that embraces various game-based measures that can bARe used to solve some kind of problem (Marczewski, 2014). Among these, the most commonly used approach in the area of sports is gamification.

Gamification. "Gamification is the craft of deriving all the fun and engaging elements found in games and applying them to real-world or productive activities." (Yukai Chou) It refers to the deliberate utilization of game elements in non-game contexts (Armstrong et. al, 2016) to create more enjoyable and gameful user experiences, and to facilitate positive psychological outcomes (Hamari et al., 2014) such as improved motivation and engagement, and enhance skills development (Mitchell, 2012 in Kari et.al., 2016).

> ***To keep it short, the purpose is to inspire people´s behaviour in the desired direction playfully and joyfully.***

What are the key components of a gamified approach applied in training?

Gamification operates with ´game mechanics´, specific drivers designed to facilitate positive emotional states such as motivation, positive attitude, entertainment, and joy. (Hamari et al, 2014) Among the most important game mechanics, scientists highlight the following: immediate feedback regarding performance, adaptive levels, gradually increasing difficulty, intermittent goals, challenges-control equilibrium, rewards (points- badges- leaderboard ranking system - PBL system, trophies and prizes), and social interaction (Leutner et al., 2023; Armstrong et al, 2016; Marzewski et. al., 2015 in Martinho et. al., 2020).

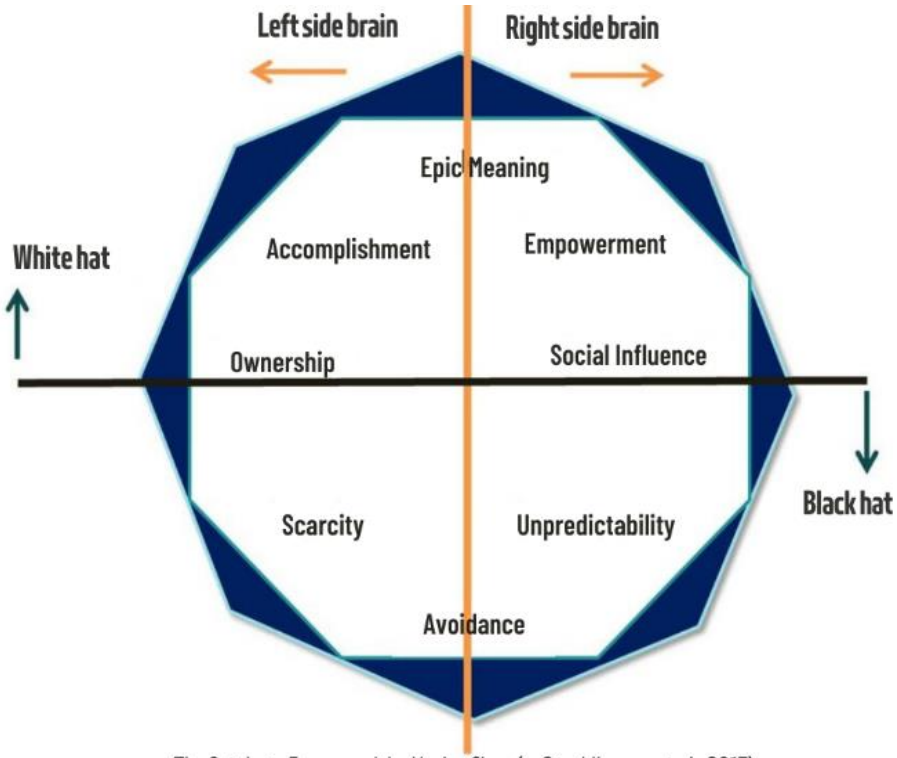
Gamification experts highlight the importance of working with both extrinsic and intrinsic motivators (Larsson, 2013). Researchers found that practitioners with a higher internal motivation (e.g. associating value and higher meaning to the practice - spiritual growth while practicing yoga) tend to exercise more often and feel more competent and happier compared to those who have merely external motivation for exercising. e.g. accomplishment and ownership - doing sports to lose weight or improve their looks (Larsson, 2013).

The Octalysis framework

It is one of the most practical gamification models, elaborated by Yu-kai Cho. It provides a hands-on, clear structure to understand the key motivation factors that gamification can embrace, and trainers may use it as inspiration to elaborate their own, personalized gamified training programs. The model has 8 pillars - gamification "ingredients" (Chou, 2015) What's more, each of them can be positioned along three continuous scales:

- Left brain (logic, calculation) vs. right brain (creativity, social) activation;
- White hat (positive reinforcement) vs. black hat (negative punishment) dominance;
- Intrinsic - extrinsic motivation.

We will come back to the Octalysis model with more details and best practices under the Examples section.



The Octalysis Framework by Yu-kai Chou (in Göschlberger et.al., 2017).

Gamification approaches in sports practice

Last but not least it is to highlight that there are two possible ways to introduce gamification into everyday life training: digital and classical (non-digital) approaches.

a) The latter approach has already achieved popularity - just think of exercise apps. A carefully chosen, easy-to-use, and user-friendly app can provide a sense of gamification and enhance training regularity. Regular feedback, short-term goals, and achievement rewards are common elements of gamified apps. Yet, the use of these tools is not popular enough among the senior citizens Choosing and utilizing such an app within the training group could complement the presential training, as an in-between-class exercise motivation and performance tracker. Naturally, there are more complex technologicalsolutions too (building on VR, AR, or serious games).

b) On the other hand, the classical approach, here we refer to the conscious and strategic application of gamification elements in the face-to-face training design, lends itself to group and individual classes too. Nevertheless, it could be more incentivized and used more consciously by sports professionals. We believe that the best is to combine the two ways.

In the case of senior training, a realistic expectation linked to gamification could be to boost their commitment to regular exercise and increase their training experience. For this scope, we suggest following a broader approach, focusing on facilitating gamified experiences. For practical reasons, a combination of digital and classical gamification techniques would be beneficial.

5.3: Benefits of a gamified training design

Time and energy are precious assets. People, in general, are prone to do things for 3 reasons: utility, obligation, or fun. Gamification combines utility and fun, thus reinforcing action. Gamifying sports training, or utilizing gamification exercise apps can be trainers' strong ally in enhancing the motivation of senior citizens to engage in regular physical activity.

Let´s take a closer look. The below citations are taken from interviews with older sports practitioners, conducted by the Ikigai Partnership in 2024.

> ***"Time flies, I enjoy the training without thinking about other things"***

Playing induces a special ´modified state of consciousness´ which leads to more genuine reactions and involvement among practitioners. It has a lot to do with intrinsic motivation and Flow, a state of complete immersion in an activity. "When a person experiences flow, they become deeply absorbed in what they're doing, losing track of time and external concerns. Individuals report feeling at their best during these moments; it is a state of optimal experience characterized by being fully focused and engaged in an activity." OpenAI. (2024). *Flow* has been regarded as one of the most important psychological outcomes of gamification and games. (Hamari, 2014)

> ***When we are challenged to do something new, at first I get surprised maybe even scared a bit, but then I feel tempted to try because I get curious. While focusing on doing so, I stop worrying. Afterward, I feel so proud"***

Given the elevated motivational and engagement potential of a gamified training approach, participants are more likely to forget about the circumstances and the potential stressors (Povah et al., 2018), entering the ´game mindset´ they tend to forget about their fears, difficulties, limitations, and uncertainties.

The playful nature of a gamified sports class can incentivize senior practitioners to take a trial-error approach, where imperfection and mistakes form an organic part of the development process. Challenges can convert to a curious, joyful exploration, free from the fear of shame or falling behind. On the contrary, it can boost senior practitioner´s self-confidence, self-acceptance, openness to try new things, and positive attitude. Indeed, research results prove the efficiency of gamification in reducing performance-related anxiety (test-taking- anxiety). (Leutner et al., 2023)

> **I kind of evoke my internal ninja-warrior, and I enjoy thinking about myself as such". "We laugh at ourselves, and we laugh with each other"**

Using gamification techniques has proven beneficial in boosting senior well-being, and improving their physical, cognitive, social, and emotional state. (Martinho et. al., 2020)

> **"It feels nice to laugh at myself, I mean, in a good way. Especially, when we can make fun of aging with the other class members. I do it in class, but I started doing it at home too. I am less frustrated with getting old, I have more sympathy for myself."**

The digital game-based performance tracking and assessment (GBA) solutions (especially when combined with advanced analytics and smart wearables) provide new possibilities for trainers and health professionals working with older adults. Researchers found that for people using an app feels like inducing a sense of gamefulness into the practice. The most common features triggering this perception include, for example, the option of different ways of exercise visualization, and the possibility to save, store, compare, or share personal exercise data. The self-competition, progress tracking, and route comparisons are also experienced as playful elements. (Kari et. al., 2016)

How to apply in practice:

> **"When I see that yesterday I didn´t make it to 10,000 steps, it motivates me to catch up and reach my goal today. Without the app, I wouldn't keep track of my physical activity outside of pilates classes"**

This section is to guide you through the key elements of gamification through practical examples. We do this while keeping in mind the target beneficiaries, senior sports practitioners. We would like to encourage trainers to adapt and utilize some/or all of these strategies to enrich their training practice with senior students, boosting motivation and engagement.

How to induce gamified motivation into your training design and classes

To keep it as practical as possible, we will use the Octalysis Gamification Framework as a reference structure. Our goal is to illustrate each key gamification design component with a practical example, based on real-life experiences. A large part of these examples is the fruit of field research conducted by the Ikigai Partnership (2024) and interviews with yoga trainers of senior practitioners.

1) **Epic Meaning and Calling:** Drive attention to a higher sense associated with the sports activity, something bigger than the students' personal interest; it will trigger intrinsic motivation. *Example: "Let´s take the tree-pose (Vrksasana).* The fruit of your asana is that you feel balanced, calm, and rooted. By keeping yourself strong and well, you inspire your whole family and community."

2) **Accomplishment & Development**: Challenge your students wisely, and praise them for beating the challenge well (for real achievement, wg. courage, endurance, attitude, etc.) It is essential to find the right dosage (not too difficult and not too easy) to ensure a gratifying sense of achievement, growth, and pride. This strategy works with extrinsic motivators (e.g. points, badges, leaderboard). *Example: "You all know the tree-pose (Vrksasana), we have been practicing it during our yoga classes. Today we try something different. We will do the tree-pose standing in the sand/with your feet in the ocean/lake (it will be a bit more difficult to keep the balance). Great, you are strong as a tree."* At the end of the class you can hand out a small note with a nice citation or with a tree image, as a "badge".

3) **Empowerment of Creativity and Feedback:** By facing students with new challenges and new exercises during the training, we incentivize exploration and creative problem-solving. Giving prompt and positive feedback to them is also important. Thus we can keep the classes interesting and fresh, and stimulate their intrinsic motivation. *Example: "We will realize a tree-pose (Vrksasana) with a little twist. Please, think of your present state, what is in you, and how you feel in the present moment. Take a moment to tune in. Now, do the tree-pose, but bring into it your actual self, your feelings. Express yourself as a tree, and let your arms take the position that represents what kind of tree you are in this moment."*

4) **Ownership and Possession**: When sports practitioners feel that they own something, or acquire something of perceived value, they feel more motivated to keep it or own more. Works as an external motivation. *Examples: Create a monthly pass, and stamp on it after each attended class. Another suggestion is to define a thematic program for a shorter period (e.g., a 4-week yoga program to strengthen the core & the digestive tract), and give a simple certificate after its completion highlighting the participant's name, program title, and timeframe.*

5) **Social Influence and Relatedness**: This component is one of the most important intrinsic motivators. Trainers can boost it by enhancing companionship and a climate of acceptance during classes or even promoting peer mentoring (e.g. more experienced students mentoring the newcomers).

Circular group position incentivizes social belonging, use it. People are also drawn to things that remind them of dear memories and reconnect them with places, phases, or people that they love and relate to. (E.g. Choose pieces of music from the time of your older student´s childhood or young adulthood, or use heroes/ikons of their time as inspirational examples during class). *Example*: "*Today we will do tree-pose (Vrksasana) in a team. Stand next to each other, forming a line, stretch your arms, and pose your hands on the shoulders of your neighbors. Close your eyes and feel the support of the group. You can rely on others and they can rely on you. You are supported, connected, accepted, and appreciated."*

Another way to work with this motivator is by bringing some competition to the training, either solo or in pair work. *Example: "Today we are going to have a small competition. We are looking for the*

strongest tree. Now, everyone, wear your very best tree-pose (Vrksasana) and let´s see, who can stay in it for the longest time. Remember, today it might be you, tomorrow someone else. It´s about competing against yourself. Stretch a bit your boundaries. Be strong, cheerful, and breathe."

6) **Scarcity and impatience:** If something is difficult to reach, or get, it feels more valuable. Trainers can hint at something weeks before doing it in class; starting by talking about the specialty of a given exercise that the group will do when they are "ready for it", and highlighting the promising benefits of it. Create a ´myth´ around it. *Example*: "*There is a very powerful breathing exercise that was kept in secret over the centuries. Only yogis and gurus practiced it. A few decades ago a guru felt a spiritual call to share it with the world. It has a strong revitalizing effect and stimulates key points in the hormonal system. It is really powerful. But requires preparation. When the time comes, when you are ready, we will learn it."*

7) **Unpredictability and Curiosity:** Think of a very good TV series. One of the reasons why people get hooked is that we share a very basic, intrinsic human drive to want to find out, what will happen next. "If you don't know what's going to happen, your brain is engaged and you think about it often." (Yu-kai Chou) You can use this drive to your advantage strengthening the will of your students to come to your classes regularly. *Example*: "*Next week we will do something that we have never tried before. Maybe new asanas, or new breathing techniques, maybe laughing yoga, maybe partner yoga? Maybe something else. You will find it out. The only thing I can say, is that you will be surprised but you will like it."*

8) **Loss avoidance:** This is a negative motivation, but a powerful one. Trainers can enhance the importance of keeping up physical exercise to not lose the flexibility, stamina, agility, and the positive mood that they have built over the past period, with hard work and endurance. *Example: "Over the past months you have developed a lot, gained new skills, and improved your physical and psychological condition. You sweated, fought, and worked for it. The price was not cheap, but worth the effort. The one thing you have to do to keep this is continue practicing, so you won't have to start over again, instead, you will keep getting better."*

Tips and Recommendations

Each sports trainer has a unique, individual training style. Therefore, we recommend choosing from the above strategies following some self-reflection.

- Start by applying the gamification elements that feel closer to your personality, the ones that make you feel at ease and authentic when introducing them into your training practice. In the long run, we encourage everyone to experiment with all the techniques, embracing the exploration as a playful discovery.

Demographic factors seem to be the biggest bottleneck. Regarding the implementation of digital gamification solutions (e.g. gamified exercise apps), one of the biggest challenges is that senior people

tend to face great difficulty in perceiving the inherent benefits resulting from new technologies and game mechanics. For this reason, they can lose interest and give up using the system over time. (Martinho et. al., 2020; Koivisto and Malik, 2020)

- A combination of digital (training app) and classical (gamified motivator in class) approaches is desirable, and lands itself for blended training modalities too, merging face-to-face training with home practice (synchronous & asynchronous training). Gamify the use of the digital component (e.g. announce monthly challenges or leaderboards based on the home-practice results, such as step numbers, or send them motivating music reminding them of their young years each week, to spice up the daily home-practic “power walks”).
- The classical, non-digital way will be easier to start with. To introduce the gamified digital tool, dedicate enough time and attention. The below image drives the spotlight on the positive and negative aspects. Prepare a safe, relaxed environment, leave enough time for senior users to try it and familiarize themselves with it, and incentivize group conversation to discuss questions and doubts. This could be, ideally, a playful (gamified) and social group occasion.

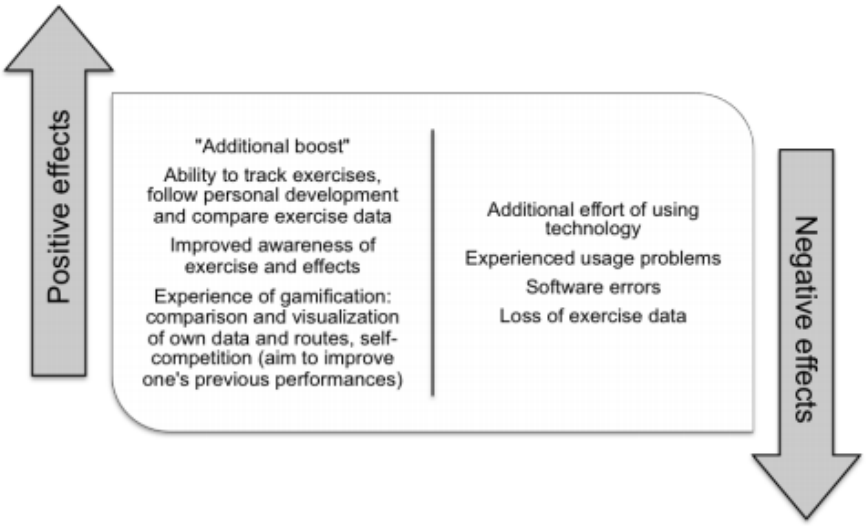


Figure 2: The perceived positive and negative effects on exercise motivation and behavior from using the exercise application. (Kari et. al. 2026, pg. 401)

Questions to Reflect

- Which gamification elements of the Octalysis framework move you most during personal sports practice?
- What are the main motivators enabling you to enjoy your work as a trainer? Think of the Octalysis framework.
- Picture the best-case scenario, what would be the desired result of a successful training gamification intervention, for you?
- What could be the first, doable step towards enriching your trainer practice with gamification?

Conclusions

Having read this chapter trainers gained insight into the conceptual framework of game thinking and gamification. They learned about the feasible practical approaches to infuse playfulness into their classes in a strategic way, either by classical methods or combined with digital tools. We hope that the presentation of benefits, challenges, solutions, and practical examples related to the implementation of this method will encourage them to start using gamification.

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Quiz

1.

What is the most effective implementation approach of gamification in senior training?

a) Applying digital tools for training reasons which provide gamified experiences to the users (E.g., exercise apps, or exergames)

b) Applying classical (non-digital) approach incorporating gamification dynamics into the face-to-face training design

c) A and B together in- class training regime (synchronous training regime)

d) A and B together in- class and in asynchronous training regime (class + individual home practice)

2.

What does gamification mean?

a) Using board game, cards games and other playful activities to promote social connection among senior sports practitioners

b) Applying game design elements in non-game context to enhance motivation, game-like experiences, and problem-solving.

c) Applying sports apps to track the training individual training results, follow progress, receive immediate feedback, and rewards (E.g. badges)

d) Being funny and playful delivering leading sports classes

3.

Which of the following statements is TRUE about gamification?

a) Playing is only for children, therefore when we apply gamification on sports training, we revoke childhood experiences

b) Gamification only works when we apply all the game mechanics and game experience drivers at the same time

c) Gamification activates a special state of mind when times goes by without noticing it, feelings of engagement, curiosity and entertainment, reducing worries and stress

d) Gamification is a new invention of our decade

4.

Which of the following approaches is NOT considered as gamification?

a) Using negative feedbacks and scolding students for weak performance

b) Setting easy goals a bit below the student's level, to create a safe training environment

c) Putting pressure on students to achieve for higher goals

d) None of the above

5.

Which of the followings forms key component of Yu-Kai Cho's Octalysis Gamification Framework?

a) Meaning, Mindfulness, Accomplishment

b) Empowerment, Unpredictability, Social connections

c) Ownership, Badges, Feedbacks

d) Avoidance, Scarcity, Pressure

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6. SOCIAL CONNECTIONS

Written by Massimo Bardus, Chiara Pieretti
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Overview	Social connections and group dynamics in physical activity classes for 55+ adults are crucial for promoting holistic well-being. As individuals age, maintaining strong social bonds and a sense of belonging becomes increasingly important for their overall well-being. In the context of fitness or training classes, fostering social connections and creating positive group dynamics can greatly enhance motivation, engagement, and physical and emotional health. For many adults, especially seniors, participating in group activities such as sports or exercise classes provides an opportunity to form meaningful relationships. Social connection in these settings helps combat loneliness and isolation, which are common concerns for older adults. When participants feel a sense of camaraderie, they are more likely to return to the class, stay committed to their fitness goals, and experience a higher level of emotional well-being. The shared experience of working toward common fitness goals also fosters support and encouragement among participants, which can have a powerful impact on long-term adherence to physical activity. Trainers can encourage healthy group dynamics by promoting collaboration over competition, ensuring that all members feel valued regardless of their physical ability, and encouraging peer support. Classes that prioritise teamwork, respect, and shared achievement can lead to stronger group cohesion and a more enjoyable experience for participants.
Objectives	• Introduction and overview of the main social aspects that are essential in 55+ training or sports environment, their benefits and a practical example of creating social connections • Foster group dynamics that can help improve group cohesion, performance, and overall satisfaction • Understand why a positive and supportive environment for adults and elderly seniors in various settings is important and its impact on learners
Learning Outcomes	• Know the importance of social aspects and group dynamics in over55 trainees • Learn how to implement the use of smart devices to foster engagement • Homogenise the group to support trainees in a positive way • Learn how to be supportive and positive • Learn how to keep the class engaged • Be able to set up a positive and inclusive environment for training

6.1: Social aspects of training

Introduction

Social connection is intended as the feeling that you belong to a group and generally feel close to other people. Scientific evidence strongly suggests that this is a core psychological need, essential to feeling satisfied with one's life.

As an example, Harvard University's Centre for Adult Development launched one of the longest scientific experiments In (Mineo, 2017)(), which is still ongoing. Year by year, they interviewed the same research participants (over 700!) about their health, well-being, and personal lives, and they also had access to their medical records, used imaging, and talked to their family members. More than 70 years of research have shown that people who have stronger family, friends and community ties are healthier and more likely to have better well-being and longer lives. In the company of loved ones, we cope with adversities more easily and feel them less stressful. Intimate, supportive relationships act as a "buffer" against discomfort.

In the framework of the IKIGAI55 project interviews were conducted with trainers and senior sports practitioners in 6 countries. The results reinforced the importance of social bonds:

To the question: *"What do you think motivates most of your older students to engage in regular training?" Many trainers pointed out that older people tend to isolate themselves, they have fewer habits linking them with the external world.*

Benefits of social connection in sports or training environment

Physical group activity can be much more than sport. Classes can become spaces where people can meet regularly, sharing common interests and creating lasting relationships. This sense of belonging to a community is crucial for emotional and social well-being. For many adults, especially the elderly, social isolation can be a significant problem. Physical activity classes offer an opportunity to get out of the house and interact with other people, thus reducing the risk of isolation and loneliness.

Let's' have a look at some of the benefits of social connection in sports or training environment and how they manifest in such settings:

- Fighting isolation and loneliness: As individuals age, they often experience increased isolation due to life changes such as retirement, relocation, or the loss of social networks. A sports or training class provides an opportunity for seniors to connect with others who share similar interests and challenges. Engaging in physical activities alongside peers can help reduce feelings of loneliness, promote social interaction, and create new friendships.

- Building a sense of belonging: Participating in a group fitness or sports class creates a sense of belonging, which is particularly important for older adults. Regular attendance fosters familiarity among group members, and seniors begin to feel part of a supportive community. This connection boosts their emotional well-being, as they feel they are not only improving their physical health but also forming meaningful social bonds.

- Motivation through peer support: Social connection in a fitness setting often translates to increased motivation. When adults or seniors exercise in groups, they are more likely to encourage and support each other, celebrating small wins and progress along the way. This positive reinforcement from peers can be more motivating than working out alone, especially for seniors who may be hesitant or insecure about their abilities. Knowing that others are on a similar journey fosters perseverance.

- Emotional and psychological benefits: The emotional and psychological benefits of social connection in a training environment extend beyond fitness. Being part of a group that shares a common goal enhances self-esteem and reduces anxiety, particularly for older adults who might be concerned about their health or physical limitations. These interactions provide a sense of purpose and fulfilment, which positively impacts mental health.
- Fostering intergenerational bonds: In some sports environments, there may be opportunities for intergenerational interaction, with adults of various ages participating together. This dynamic enriches the experience for older adults, as they can share their life experiences and wisdom, while also learning from younger participants. These connections enhance mutual respect, learning, and understanding, enhancing the social fabric of the group.
- Group cohesion and accountability: Social connections boost group cohesion, which makes participants feel more committed to the group and to their own fitness goals. Seniors are more likely to attend classes regularly when they know they are part of a connected group where their presence is noticed and valued. This accountability can lead to better consistency and long-term adherence to fitness programs.
- Shared experiences and overcoming challenges together: For seniors, engaging in physical activity may sometimes present challenges, such as adjusting to new routines or dealing with age-related health issues. When they participate in a group setting, they realise they are not alone in facing these challenges. Sharing experiences with others in similar circumstances makes it easier to cope and can turn physical challenges into opportunities for collective growth and support.

Participating in this type of activity can also be a learning opportunity. Adults can acquire new motor skills, learn more about their bodies and develop greater self-awareness. In addition, sharing experiences and knowledge within the group enriches all participants. Regular participation in activities helps develop positive routines and establish a sense of discipline and responsibility

Practical example for creating social connection

For a simple and easy example of creating social connection in a group of adults or elderly people in a training or sports environment, have a look at this structured partner-based exercise session that incorporates interaction, teamwork, and shared goals:

1. **Warm-up with introductions (5-10 minutes):**

   Before starting the session, the trainer can facilitate a brief icebreaker or introduction round. Each participant pairs up with someone they don't know well and exchanges names, a fun fact, or something simple like their favourite hobby or why they joined the class.
   Purpose: this helps break the ice and creates a comfortable social atmosphere right from the start.

2. **Partner-based exercise stations (30-40 minutes):**

   The class is divided into pairs or small groups, and each station in the circuit involves a partner-based exercise. For example:

   - Ball Pass: Partners stand a few feet apart and pass a medicine ball back and forth, alternating between chest passes and overhead passes.
   - Assisted Balance Exercises: One participant provides light support while the other performs balance exercises (e.g., standing on one leg).
   - Tandem Walking: Partners walk side by side, one giving gentle guidance to improve balance or posture.
   - Resistance Band Pulls: Partners face each other, pulling opposite ends of a resistance band, building strength while requiring cooperation and coordination.

   Purpose: each exercise requires communication, cooperation, and mutual support, creating a shared experience where participants rely on and help each other.

3. **Cool-down with group reflection (5-10 minutes):**

   After the main workout, participants gather in a circle for a cool-down stretch. During this time, the trainer invites the group to reflect briefly on their experience: "What was your favourite exercise today?" or "How did your partner help you stay motivated?"
   Purpose: sharing reflections helps create a sense of group cohesion, as participants realise they all faced similar challenges and supported each other through them.

This can be a good "social" exercise because it fosters:
Shared Goals: partnering participants with a common goal fosters cooperation, trust, and camaraderie.
Social Interaction: structured opportunities to communicate and support each other lead to meaningful social interactions.
Positive Reinforcement: encouraging praise and mutual support builds a positive, inclusive atmosphere where participants feel valued and connected.

6.2: Group dynamics in sports or training 55+ classes

A brief introduction to group dynamics

Group dynamics refer to the patterns of interaction, communication, and behaviour that occur within a group setting. The concept, rooted in social psychology, explores how individuals behave and interact when they are part of a group, and how the group itself influences its members' attitudes, actions, and outcomes. Group dynamics play a vital role in various contexts, such as work environments, sports teams, training sessions, and educational settings. Understanding and applying the principles of group dynamics can help improve group cohesion, performance, and overall satisfaction among participants

Here are some general key concepts of group dynamics:

Group Structure: groups have structures that define roles, norms, and relationships among members. These structures shape how individuals interact within the group, who leads, and how decisions are made. Key components include:

- **Roles**: Defined positions within the group (e.g., leader, follower, facilitator). Each role comes with specific expectations and responsibilities.
- **Norms**: Unwritten rules and shared beliefs that guide behaviour within the group. Norms influence what is acceptable and unacceptable, shaping how group members act.
- **Cohesion**: The level of connection and solidarity between group members. High cohesion fosters trust, collaboration, and commitment to group goals.

Group Development Stages: according to Bruce Tuckman's model (Tuckman, 1965), groups typically go through five stages of development:

- **Forming**: group members meet, and roles and responsibilities are not yet clear. There is a period of orientation and exploration.
- **Storming**: conflicts and disagreements arise as members assert their ideas and vie for positions or leadership.
- **Norming**: the group starts to settle into its structure, roles become clearer, and norms are established. Cooperation increases.
- **Performing**: the group works effectively towards its goals, with strong cooperation and communication.
- **Adjourning**: the group disbands after achieving its objectives.

Social Identity and Group Influence: Social Identity Theory, introduced by Tajfel and Turner (Tajfel and Turner, 1979), suggests that people derive part of their identity from the groups they belong to. This can create a sense of belonging and loyalty, which influences behaviour.

Conformity and Groupthinking:

Conformity occurs when individuals change their behaviour to align with group norms or to fit in with the group, sometimes at the expense of personal preferences.

Groupthink is a phenomenon where group members prioritise harmony and consensus over critical thinking, leading to poor decision-making. This often happens in highly cohesive groups with strong leaders, where dissent is discouraged.

Leadership and Communication: leadership is a central aspect of group dynamics, influencing the direction, efficiency, and atmosphere of the group. Effective leaders can guide the group toward its goals, resolve conflicts, and foster an environment of open communication.

Motivation and Interdependence: group dynamics often involve different levels of motivation and interdependence. Groups with high interdependence rely on each member's contribution to achieve collective goals

Understanding group dynamics is critical in fostering effective collaboration, communication, and cohesion in any group setting. Whether in sports, education, or work environments, applying the principles of group dynamics can lead to more harmonious interactions, increased productivity, and enhanced group satisfaction. Trainers, leaders, and facilitators can benefit from mastering these concepts to create environments where all members thrive.

Group dynamics in 55+ adults and elderly in sports or training environment

Group dynamics in gymnastics and physical activity classes for 55+ are of fundamental importance, as they have a profound effect on the overall well-being of individuals and their quality of life, and allow individuals to offer and receive emotional support. Sharing experiences, progress and challenges with people in similar situations can be extremely reassuring and motivating. This mutual support can also help reduce symptoms of anxiety and depression. Participating in an exercise class with a close-knit group can increase personal satisfaction and well-being, making physical activity an enjoyable time of the day rather than a chore: positive feedback and encouragement from other group members can help adults and seniors feel more confident in their physical abilities and develop greater self-esteem.

Group dynamics also facilitate the sharing of knowledge and experiences: learners over 55 can exchange advice on various topics, from health management to hobbies and interests, creating a mutual learning environment that enriches all participants. Another factor of utmost importance, which is the focus of this Handbook, is motivation: group dynamics increase motivation and the likelihood of long-term membership.

During the IKIGAI55 Focus group carried out by each partner organisation and involving trainers and adult learners of physical activity classrooms, the importance of creating a group and social dynamics was highlighted as extremely important. Some suggestions to foster the involvement through creating a group were given by the participants:

Learn and use participants' names to personalise the interaction and create a sense of familiarity, trying to foster a deeper knowledge among participants

At the beginning of the course, organise short, simple get-to-know-you activities to break the ice and make participants feel more comfortable

In the case of partner activities, encourage partner rotation so that everyone has the opportunity to interact with different group members

Include, if possible, exercises that require collaboration and teamwork, such as games or group activities that encourage positive interaction

Create a group on a messaging platform (such as WhatsApp or Facebook) to facilitate communication between participants, share information and maintain contact outside the classroom

Sharing articles, videos and other online resources that may be of interest to participants, keeping interest in physical activity and well-being alive

Smart devices introduced as tools to encourage monitoring and improvement of group performance and not only personal performance (e.g. total pedometer as a class per week as well as comparison of results)

Practical example of fostering group dynamics

A practical example of fostering group dynamics in a group of adults or elderly people in a training or sports environment would be organising a team-based circuit workout with shared goals and responsibilities. The idea is to create an environment where participants rely on each other for support and motivation, while also enhancing communication and cooperation. Here's how this could be structured:

1. Dividing the group into teams

- Start by dividing the group into small teams (e.g., 3-5 participants per team). These teams will work together throughout the session. If the participants don't know each other well, the trainer can introduce an icebreaker activity to get them comfortable with one another.
- Each team should have a mix of abilities to encourage participants to help and motivate each other, particularly those who may need more support.

2. Explaining the shared goal

- The trainer explains that the team must complete a circuit of exercises where their overall success depends on every member completing each station. The focus should be on collective achievement rather than individual performance.
- For example, teams can be tasked with collectively completing a set number of repetitions for each station (e.g., "Your team must complete 50 squats, 50 lunges, and 50 push-ups combined"). Participants can decide how to divide the repetitions based on their individual strengths and capabilities.

3. Setting up interactive circuit stations

The trainer sets up different exercise stations around the room or outdoor area. Each station is designed to encourage teamwork and interaction. Examples include:

- Partner Ball Toss: Participants pass the ball to each other, improving coordination and communication.
- Relay-style Walking or Jogging: One participant walks or jogs a short distance while the rest of the team cheers them on. They then "tag" the next person to continue the relay.
- Tandem Balance Challenges: Participants work in pairs to complete balancing exercises where they hold each other's hands for support.

4. Celebrating small wins

- After each team finishes a station, they are encouraged to celebrate small wins, such as completing an exercise they initially found difficult. The trainer can facilitate this by asking teams to share their progress, like, "Which station did you find the most fun?" or "What did your team do well together?"

- This helps reinforce group cohesion and the sense of accomplishment, fostering a positive atmosphere of collective achievement.

5. Rotating leadership roles

- To promote inclusiveness and participation, the trainer can rotate leadership roles within each team. For instance, at each station, a different team member can take charge of deciding how to divide the exercises or encouraging others.
- This ensures that everyone has a chance to contribute to the team's success, promoting a sense of ownership and responsibility within the group.

6. Group cool-down with reflection

- At the end of the workout, participants gather in their teams for a cool-down. The trainer leads a group reflection session where each team can discuss what they learned from working together. Questions could include:

> *"What did you enjoy about working with your team?"*
> *"How did your team support each other through the more challenging exercises?"*

- This reflection strengthens the social bonds formed during the workout and helps participants appreciate the value of collaboration and communication.

6.3: Creating a positive and supportive environment

Introduction

Creating a positive, inclusive, and stimulating environment in an exercise or physical activity class for 55+ students is of paramount importance for several reasons. This type of environment not only encourages active and continuous participation, but also contributes to improving the overall well-being of participants. A positive and welcoming environment helps to reduce stress and anxiety levels, which are common among older adults. Feeling comfortable and welcome can transform the experience of physical activity into a time of relaxation and enjoyment, significantly improving the mood and quality of life of participants. In a positive and inclusive environment, participants are more likely to support each other, providing encouragement and support. This sense of community can be a powerful motivator to continue participating in classes.

Benefits of positive and supportive environments in sports and training adult classes

The presence of a stimulating environment helps participants set and reach their fitness goals. Teachers who create appropriate challenges and celebrate individual successes help to keep motivation high. An inclusive environment respects and values diversity among participants, regardless of their physical abilities, health conditions or cultural backgrounds: this approach helps everyone feel valued and respected. Offering exercises that are adaptable to different physical abilities also ensures that everyone

can participate and benefit from the physical activity, thus increasing overall participation. An environment that encourages and provides positive feedback, without being judgmental, helps develop self-confidence. People over 55 can feel more confident in their physical abilities and more motivated to continue improving. By also introducing new techniques and information on health and fitness, teachers can stimulate continuous learning, helping to keep participants mentally active and engaged.

Key findings from scientific literature

1. Psychosocial theories supporting positive environments

Scientific theories provide the framework for understanding why supportive environments are particularly effective for seniors.

- Self-Determination Theory (SDT): According to SDT, people are more motivated to engage in activities when their need for autonomy, competence, and relatedness is satisfied (Deci & Ryan, 2000). A positive and supportive environment fosters these needs by allowing seniors to feel competent (through achievable goals), autonomous (by participating in decision-making), and socially connected (through interaction with peers).
- Social Cognitive Theory: Albert Bandura's theory (1986) highlights the importance of observational learning, modelling, and social support. In supportive environments, older adults observe others engaging successfully in physical activities, which enhances their self-efficacy and motivation to participate themselves.

2. Group Exercise and Positive Social Interaction

Group-based activities in supportive environments have been shown to improve adherence to exercise and enhance physical and emotional health among older adults.

- Adherence to Physical Activity: A study by McAuley et al. (2003) demonstrated that older adults participating in group exercise programs experienced better adherence to physical activity routines compared to those who exercised alone. Positive reinforcement and social interaction in group settings improved motivation, particularly when participants felt encouraged by their peers and trainers .
- Psychosocial Benefits: Group exercise environments provide older adults with a sense of belonging and social connection. Research published in The Journal of Aging and Physical Activity (2009) found that older adults who participate in supportive group exercise environments report improved mood, reduced anxiety, and greater enjoyment during activities (Kulik, Mahler, 2009) . A positive social environment enhances psychological resilience, particularly in seniors.

3. Effect of positive reinforcement on physical performance

Positive reinforcement and encouragement during physical activities have a measurable impact on performance and enjoyment for elderly participants.

- Improved Performance: A study by Wurtele et al. (2001) on older adults participating in physical rehabilitation showed that participants who received consistent positive reinforcement from their therapists and peers showed improved motor performance and were more willing to engage in challenging tasks. The encouragement fostered confidence, allowing them to approach exercises as opportunities to improve rather than as stressful tasks.
- Emotional Well-being: Research by Schmid et al. (2016) published in The Journals of Gerontology demonstrated that older adults who were part of a positive, supportive exercise group reported enhanced emotional well-being and decreased feelings of stress or inadequacy during physical training sessions. Supportive feedback from peers and instructors played a significant role in enhancing self-efficacy.

Some recommendations for creating a positive and supportive environments

The above-mentioned Ikigai Interviews with trainers and senior practitioners were extremely useful also in this regard, highlighting some suggestions:

- Greeting each participant with warmth and individual recognition. A personalised welcome helps to make the trainees feel valued and at ease
- At the beginning of the course, provide clear information about the program, objectives and expectations. Create an open atmosphere where participants can ask questions and feel involved
- Encourage participants to introduce themselves and socialise, perhaps through group activities or pair exercises. Encourage moments of conversation before and after the lesson
- Organise occasional social events outside the lessons (a coffee, a dinner, a bike ride)
- Offer variations of exercises to suit different physical abilities and fitness levels
- Ensure that classes are accessible to all, regardless of physical abilities or health conditions. Use equipment that can be easily adapted or replaced
- Vary the activities to maintain high interest and engagement Introduce new techniques and challenges gradually
- Ensure that the training space is safe and comfortable, with appropriate and well-maintained equipment
- Pay attention to participants' needs and concerns, showing empathy and understanding

Tips and Recommendations

Very practical tips for trainers

When promoting a positive environment in a training or sports class for adult or senior students, the choice and arrangement of furniture and equipment can play a critical role in enhancing comfort, accessibility, and overall experience. Here are some practical tips for trainers regarding furniture and layout in such classes:

Non-slip flooring and mats:

Safety first: use non-slip mats or rubber flooring to prevent falls, especially if the workout involves standing or balance-based exercises. This is crucial for creating a safe space for older participants who may have balance concerns.

Comfortable exercise mats: for floor exercises, ensure that mats are thick enough to provide comfort and cushioning for joints, particularly for seniors with arthritis or joint pain

Easily adjustable equipment:

- User-friendly weights and resistance bands: ensure that exercise equipment, such as weights, resistance bands, or balls, is easy to handle and available in varying levels of resistance or weight
- Adjustable chairs and benches: If benches or seats are used for exercises, ensure they are adjustable in height to accommodate different body types and comfort levels
- Clear and open layout:
- Clear pathways: Make sure that walkways are wide, clearly defined, and free of trip hazards. This supports ease of movement, especially for those with limited mobility
- Stable handrails and bars:
- Stability assistance: If balance or mobility is an issue, consider installing handrails or using portable bars that participants can hold onto for stability during certain exercises or transitions between movements
- Accessible water:
- Hydration: Make sure water bottle holders are easily accessible and placed at a height convenient for all participants. Encouraging hydration is crucial, especially for older adults
- Adequate lighting and temperature control:
- Bright but comfortable lighting: ensure that the space is well-lit, but avoid overly harsh lighting that may be uncomfortable for older eyes.

- Temperature control: maintain a comfortable temperature. Seniors are often more sensitive to cold or heat, so ensure that the space is well-ventilated.
- Designated rest areas:
- Comfortable rest zones: create a designated rest area with comfortable chairs or benches for

participants to take breaks during or after the session.

- Relaxation elements: adding small touches like pillows, light blankets, or footrests can make rest periods more comfortable and promote relaxation
- Use of mirrors:
- Mirrors for feedback: position large mirrors around the room so participants can monitor their own form during exercises. For seniors, this visual feedback can be helpful for maintaining correct posture and preventing injuries.
- Music system:
- Accessible audio systems: ensure that any sound systems or music players are easily accessible to the trainer and set at a volume that is audible without being overwhelming for sensitive ears.

Conclusions

In a sports or training environment, social connection is not only a source of enjoyment but also a key to sustained participation and emotional well-being for adults and seniors. Trainers can play a crucial role by fostering an inclusive, welcoming atmosphere where social bonds are nurtured, making the fitness journey more meaningful and impactful for everyone involved. Some simple exercises as the one above mentioned, not only promotes physical fitness but also nurtures strong social bonds, leading to a more enjoyable and motivating experience for the group.
Moreover, in a spillover effect, these aspects can have positive effects on other areas of participants' lives, improving time management and personal productivity. In summary, exercise classes for adults not only promote physical well-being, but also offer significant social benefits. Community building, mutual support, reduced social isolation, cultural integration and improved mental health are just some of the positive aspects that these courses can offer. Promoting participation in such activities is therefore crucial for improving the quality of life of adults. For a scientific approach to spillover effect in physical activity, have a look at this study about “Physical Activity, Healthy Behavior and Its Motivational Correlates: Exploring the Spillover Effect through Stages of Change”[1]

The scientific data strongly supports the idea that creating a positive and supportive environment for adults and elderly seniors leads to better physical, mental, and emotional health outcomes. Trainers, therapists, and caregivers can significantly enhance the well-being of seniors by fostering inclusivity, offering positive reinforcement, and encouraging social interaction in group settings. These approaches not only improve physical performance and adherence to healthy behaviours but also provide seniors with emotional and psychological benefits that contribute to their overall quality of life

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Quiz

1.

How do you create opportunities for participants to interact and build social connections during your training sessions?

a) I regularly include team-based activities or partner exercises.
b) I encourage occasional group interactions but don't actively design them into the session.
c) Social interaction is not a focus in my sessions.
d) Whenever students want to have a chat I stop the exercise and let them talk.

2.

How effectively do you facilitate group cohesion in your training sessions?

a) I assume group cohesion will naturally develop without any need for my intervention or specific planning.
b) I occasionally organise group exercises but mainly focus on individual activities.
c) I focus entirely on individual performance and do not actively consider group cohesion
d) I design activities that require teamwork and encourage participants to support one another.

3.

How do you ensure that all group members, regardless of their abilities, feel included and valued during sessions?

a) I wait for feedback from the students.
b) I offer modifications, but do not always facilitate group interaction to ensure everyone feels included.
c) I regularly adjust exercises to suit different ability levels and encourage participants to support one another
d) I focus on the standard program and leave it to participants to adapt based on their abilities.

4.

Among the following, what is the most effective way to create a positive and supportive environment for 55+ participants in a sports or training class?

a) Allow participants to work independently, focusing solely on individual progress without fostering social interaction.
b) Encourage open communication and regularly provide positive reinforcement to motivate participants and help them feel confident.
c) Minimise feedback, as older adults may not respond well to frequent corrections or guidance.
d) Assign all participants the same level of intensity, regardless of their individual fitness levels, to ensure fairness

5.

Among the following, what can never be missing in a training class of adult or seniors students?

a) Fitballs
b) Mirrors
c) A good vibe
d) Steps

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7. COMMUNICATION

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Overview	Effective communication between teacher and trainees is crucial for increasing motivation and engagement in exercise classes for 55+ adult learners. Sharing experiences, clarity, encouragement, constant feedback and a focus on understanding specific needs are all essential to create a positive and stimulating learning environment. By implementing these cornerstones, teachers can help their trainees achieve their fitness goals and improve their overall well-being.
Objectives	• Amplifying teacher´s awareness regarding different communication strategies, their pros and cons, and effects • Promoting the application of positive expressive feedback techniques during training • Applying Neuro-linguistic Programming (NLP) in 55+ adult learners' physical activities environment
Learning Outcomes	• Get improved training design skills by embracing communication and music as a motivation strategy and storytelling as a mean to improve communication, • Be able to get constant positive feedback to motivate learners • Foster curiosity, positive attitude and readiness to enrich senior training with novel techniques, such as storytelling • Get the basic knowledge about key NLP principles applicable in senior training, • Learn the importance of sharing experiences and how to apply NLP to 55+ physical activities clases

7.1: Storytelling as a mean of effective communication and sharing experiences to engage learners

Introduction

Storytelling, as a method of communication in adult education, holds immense power in enhancing engagement, comprehension, and retention of information. In adult training, it serves as a bridge between abstract concepts and real-life experiences, making learning more relatable and meaningful.

Let's have a look at some pros of storytelling in training or physical activities classes for adults.

Storytelling in a sports or physical activity environment

Storytelling, as a method of communication in adult education, holds immense power in enhancing engagement, comprehension, and memory. In adult training, it serves as a bridge between ideas and real-life experiences, making the journey of self-enrichment (e.g. learning and discovering new things in sports) more inspiring and meaningful.

Effective storytelling involves presenting information in a narrative format that connects with people's emotions, experiences, and perspectives.

"As a child, my dream was to become a dancer. I chased this dream for some years but eventually gave it up. I became a nurse, but I have always missed the flow, the chill, the happiness that danced lights up in me. Years later, I decided to take a Zumba teacher trainer course, and I started giving Zumba classes as a hobby. I feel that my dream came true. I feel powerful and full of life when I dance, and this is what I pass through to my senior students too. Reframing and realising my childhood opened a new horizon for me, I feel proud and ready to keep on dancing".

One of the key reasons storytelling works so well in adult education is that adults have a wealth of life experience, and a well-constructed story can activate these experiences. It works as a trigger to naturally compare and contrast the new information with the existing knowledge. A well-constructed story can make older people feel more confident and open-minded and helps to make sense of new ideas by placing listeners in a context they can relate to and understand.

Have a look at these practical storytelling techniques for engaging presentations:

https://blog.sparkol.com/8-classic-storytelling-techniques-for-engaging-presentations

In physical activity courses for adults over 55, it is of great importance to inspire learners to share their experiences. One of the main advantages is its power to create a collaborative and stimulating environment, which promotes interaction and inclusion and facilitates learning from other participants´ personal experiences. Storytelling can create stronger bonds and relationships among people, they develop a sense of community and belonging.

In this sense, by promoting experience sharing strategically and proactively, the trainer can make training a more collaborative and engaging experience for the participants. When students join the storytelling "game" and share their experiences, it can be motivating for trainers too.

By asking questions and sharing experiences, teachers can gain a deeper understanding of the individual needs, preferences and limitations of the trainees, and with this information, teachers can adapt the

exercise program to better meet the needs of the participants. Active participation also gives the trainees a sense of control over their fitness journey, increasing their satisfaction and commitment, as feeling involved in the decisions and activities of the course promotes greater personal responsibility for their own well-being and fitness goals.

Not least, this provides important feedback to teachers, helping them to continuously improve their teaching methods and develop new approaches that better meet the needs of the group, evaluating the effectiveness of the lessons in real time and being able to make any necessary corrections.

Examples of implementing storytelling with adults and seniors

1. Historical or inspirational stories of athletes:

Share stories of famous athletes or inspirational figures who overcame challenges, whether physical, mental, or emotional, to achieve their goals. For example, telling the story of a senior athlete who started a fitness journey later in life can serve as a motivational introduction to a session.

Example: Before starting a session on flexibility, you might tell the story of Tao Porchon-Lynch, a yoga teacher who continued teaching well into her 90s. This could inspire older participants to understand the benefits of flexibility exercises at any age.

2. Personal stories of overcoming injury or limitation:

Trainers can use their own personal experiences or those of others to illustrate how physical activity can aid recovery or improve mobility and well-being. This approach helps participants relate to the struggles of physical limitations and see the progress that is possible.

Example: A trainer could start a strength training class by sharing a story about how, after an injury, they used strength exercises to regain mobility. The story could be framed as a journey, emphasising patience and incremental progress, which helps participants set realistic expectations for their own training.

3. Creating a narrative-based workout

Trainers can structure a workout session around a narrative. For instance, a warm-up, main exercise, and cool-down can be tied together in a story that reflects stages of a journey, like a mountain climb or preparing for a marathon. The "story" becomes the framework through which the workout is delivered.

Example: During a gym workout, the trainer could tell a story about a race through different terrains. The warm-up is the "easy forest path," the main workout is the "mountain climb," and the cool-down is the "descent." This gives participants a mental image and keeps them engaged throughout the session.

4. Sharing success stories from previous participants or friends

Use testimonials or stories from other participants or friends who achieved specific health or fitness goals. This can be especially motivating for adults and seniors who may feel overwhelmed or doubtful about their ability to progress.

Example: Before starting a balance and low-impact gym class, share the story of a participant who improved their stability and prevented falls through regular practice. Knowing someone else in their age group or with similar health challenges has succeeded makes the training feel achievable.

5. Cultural Stories Tied to Movement

In some cases, movements in a class can be connected to cultural or traditional stories. This is particularly effective in yoga or Tai Chi where many movements have historical significance. The teacher can narrate the story behind a certain pose or movement, adding depth and meaning to the activity.

Example: In a Tai Chi class, the teacher might explain the origins of certain forms or movements by telling the story of ancient warriors or monks using these practices to maintain physical and mental balance during times of stress or conflict.

7.2: Music as a pillar of motivation

Introduction

Well-chosen music has positive implications for our health. It can improve our emotional state, boost positive experiences, and inhibit negative ones. Music is able to induce a state of relaxation and reduce stress, or even energise. When music is combined with exercise, the benefits increase.

Examples of how music can motivate learners during training

1. Enhances Mood and Reduces Anxiety

Music has a direct effect on mood. For adults or seniors, particularly those who may feel unmotivated about exercising, music can make the experience more enjoyable.

Example: playing soft, upbeat music during warm-up and cool-down phases can create a calming and welcoming atmosphere.

2. Improves Focus and Coordination

For seniors, especially, music can serve as a guide for coordinating movements. Music can help participants stay synchronised, improving both the quality of their workout and their focus.

Example: in a dance-based workout, music with a clear rhythm and tempo helps participants follow the steps more easily, improving coordination and keeping everyone moving together, which fosters a sense of group cohesion.

3. Reduces Perception of Effort

Music can reduce the perception of physical effort. When participants are focused on the music, they may be less aware of fatigue or discomfort, and this can be a key point for 55+ adults who might find physical activity more tiring.

Example: in a class that involves repetitive motions or endurance exercises, upbeat and engaging music can distract participants from the physical effort, making the workout feel less strenuous and more enjoyable.

4. Promotes Social Interaction and Fun

Group exercises with music, such as dance-based fitness or low-impact aerobic sessions, can promote social interaction, which is especially important for seniors. Music makes the environment feel lively and inviting, encouraging interaction among participants.

Example: A senior fitness class that incorporates line dancing or light aerobics to music encourages not only physical activity but also social engagement.

!!! Tip for trainers: find the right playlist for your training on the most common apps/websites (YouTube, Spotify, Apple Music, Amazon Music, Soundcloud, etc.) using these keywords:

- Running Tempo
- Crossfit
- Cardio Mix
- Yoga Music
- Relaxing Workout
- Line dancing

!!!Potential drawbacks or issues to consider:

- **Distraction from technique and safety**: music, especially with a strong beat or fast tempo, can sometimes distract participants from focusing on proper form and technique. This is particularly important for seniors, who may be at a higher risk of injury if they lose concentration on the movement or alignment.
  Tip for trainer: always ask trainees if the music tempo is too fast
- **Hearing impairments:** some adults and seniors may have hearing difficulties, and loud or continuous music can be overwhelming or disorienting. This could reduce their ability to hear instructions from the trainer, potentially leading to confusion or errors in performing exercises, especially in a group setting where clear communication is essential.
  Tip for trainers: Keep the volume moderate and test different volume levels before the class starts

- **Overstimulation and sensory overload**: for participants sensitive to sensory inputs, such as older adults with cognitive impairments or certain neurological conditions, loud or fast-paced music might contribute to sensory overload. This can lead to anxiety, discomfort, or even withdrawal from the session, counteracting the intended motivational benefits of the music
  Tip for trainers: choose music with minimal lyrics as instrumental music or songs with fewer lyrics may adults or seniors them stay focused
- **Mismatch with personal preferences**: music is highly subjective, and what motivates one person might not resonate with another. If the playlist doesn't align with the participants' tastes, it could have the opposite effect, leading to disengagement or frustration. For example, a senior class might not enjoy loud, contemporary pop music, while an adult group could find slower, nostalgic tunes unmotivating.
  Tip for trainers: choose music that reflects the tastes and preferences of the age group. For seniors, this may include more familiar genres such as classic rock, jazz, or oldies
- **Interference with verbal instructions**: Instructors need to give clear instructions, especially in a fitness class designed for adults and seniors, where movements might need to be broken down step-by-step. Loud music or inappropriate volume levels can drown out the trainer's voice, making it difficult for participants to follow along accurately, leading to confusion or missed cues.
  Tip for trainers: if the space is large or the group is big, using a microphone or headset can help ensure your voice is heard over the music without having to shout.
- **Difficulty with pace matching:** not all exercises are suited to being performed in sync with music. Some workouts, particularly those that require slow, controlled movements (such as yoga or Pilates), might be negatively affected by music that has an inappropriate tempo. This can disrupt the flow of the exercise or make it difficult for participants to move at the correct pace for their needs and capabilities.
  Tip for trainers: Solicit feedback and ask participants what kind of music they enjoy during workouts.

7.3: Positive reinforcement and the use of technology

Introduction

There are different methods of teaching and instilling good habits and behaviours. One of the most powerful and effective methods is one that you're probably at least somewhat familiar with: positive reinforcement.

Positive reinforcement, when applied to adults and seniors, refers to the practice of encouraging desirable behaviours by providing rewards or incentives, which can be tangible or intangible, immediately following those behaviours. It is based on the principle that people are more likely to repeat behaviours that are rewarded, and in educational or training settings, it is a powerful tool for motivation, engagement, and continuous improvement.

Key elements of positive reinforcement for adults and seniors

Training older adults might require a slightly different communion style than working with younger adults. It takes different ways to reach them. Let's have a look at the key elements of positive reinforcement for adults and seniors:

- Immediate and specific feedback: adults and seniors respond well to timely, clear feedback. When reinforcing positive behaviour, it's important to be specific about what they did well. This helps them understand exactly which behaviour to repeat.
- Tailored to individual preferences: adults and seniors have different motivations based on their life experiences, goals, and personal preferences. Positive reinforcement should be personalised to align with what motivates the individual.
- Fostering a sense of accomplishment: positive reinforcement taps into the adult and senior learner's desire to feel accomplished and competent.
- Encouraging intrinsic motivation for long-term success, positive reinforcement should foster intrinsic motivation — the internal desire to perform a task for personal satisfaction or fulfilment, rather than external rewards.
- Fostering social reinforcement, such as praise or recognition from peers, can be particularly powerful for adults and seniors. Feeling valued by their community or group fosters a sense of belonging and can motivate continued participation.

Here are some examples of positive reinforcement that trainers can apply in a fitness/sports class with adults and seniors:

- **Verbal praise**: in a fitness class, after a senior completes a difficult exercise, the trainer might say, "Great job maintaining your balance during that stretch! You're improving your stability."
- **Step-by-step** milestones: in a senior fitness class, recognizing small milestones, such as increasing flexibility or improving endurance, can provide a strong sense of achievement, reinforcing continued participation.
- **Autonomy as a reward:** in a wellness program, instead of just saying, "You did great today," a trainer could highlight the personal benefit: "You've been consistent with these exercises, and it's showing! Your mobility has really improved." Giving adults and seniors a sense of autonomy can be a form of positive reinforcement.
- **Social recognition:** in a group exercise class, acknowledging participants who encourage others or recognizing someone's progress in front of the group can foster a positive and supportive community atmosphere, encouraging both the individual and the group to stay engaged.

Integrating technology into communication during adults or senior training

Digital tools can play a crucial role in fostering communication and providing positive reinforcement during sports or training classes for adults and elderly people. These tools help create a more engaging, interactive, and supportive environment, encouraging participants to stay motivated and connected to their fitness goals.

Here's how digital tools can be effectively used in this context:

- **Fitness apps and wearables for tracking progress**

Apps and wearable devices (such as smartwatches or fitness trackers) allow participants to monitor their own progress, track metrics like steps, heart rate, distance, or calories burned, and set personal goals. These devices provide immediate feedback, which can serve as positive reinforcement when participants see improvements or achieve milestones.

Example: an elderly participant using a fitness app can receive automatic congratulatory messages for completing a workout or meeting a step goal. The app might display progress graphs or achievement badges, reinforcing a sense of accomplishment.
Benefit: real-time feedback increases motivation and helps seniors recognize their progress, enhancing their self-efficacy and encouraging consistency.

- **Online platforms for communication and support**

Online platforms such as group messaging apps (WhatsApp, Telegram), community forums, or fitness apps with social components allow participants to communicate with trainers and peers outside of class. These tools foster social reinforcement and provide a space for sharing achievements, asking questions, and receiving support.
Example: a trainer can create a group chat for the class where participants share their daily fitness goals, progress, or concerns. The trainer can also use this space to give encouragement, post tips, or offer praise for milestones achieved.
Benefit: these platforms encourage social interaction and create a sense of community, which can be particularly important for seniors who may be isolated. Positive reinforcement from both peers and instructors helps maintain motivation.

- **Customised feedback through fitness apps**

Some digital fitness platforms (such as B2B Fitness SaaS Platform, https://funxtion.com/digital-fitness-platform/ or Asana Rebel, https://asanarebel.com/,) provide tailored feedback based on a participant's performance. For seniors or adults, this might include feedback on physical improvements, encouragement to maintain good habits, or personalised recommendations based on health conditions or fitness levels.
Example: a fitness app might analyse data from a wearable device and send personalised feedback like, "Great job! Your heart rate recovery is improving," or, "You've been walking more consistently this week."
Benefit: personalised feedback helps participants feel seen and supported, while recognizing their unique progress or challenges. This tailored approach to positive reinforcement is particularly helpful for adults or seniors who may have specific health needs.

- **Virtual communities and peer support**

Digital platforms often host virtual communities or discussion groups where adults and seniors can interact with others facing similar challenges or pursuing similar goals. These virtual spaces foster social support, a key aspect of positive reinforcement, and can help seniors feel less isolated in their fitness journey.
Example: in an online fitness community, participants can share personal achievements, post pictures or videos of their workouts, and receive likes, comments, and encouragement from their peers.
Benefit: virtual communities create a network of support that motivates participants to stay engaged. Knowing others are sharing the same journey can boost morale and encourage sustained participation.

7.4: Neuro Linguistic programming

Image credit: https://nlpyourself.com/nlp-and-aging/

Introduction

Neuro Linguistic Programming (NLP) is an approach to communication, personal development and psychotherapy created by Richard Bandler and John Grinder in the 1970s. NLP is based on the idea that there is a direct connection between our way of speaking, thinking, and behaving. The use of language can trigger our neurological (neuro) processes and behavioural patterns, and this can help us achieve specific goals in life when used wisely and strategically. The efficient linguistic use can be learned through experience (programming). Trainers can apply some of the below principles in their communication:

Here is an overview of the fundamental principles of NLP:

Rapport: Creating a relationship of trust and mutual understanding. It is fundamental to effective communication.

Modelling: Identification and reproduction of successful behaviour. If someone does something successfully, it can be modelled and taught to others.

Representational Systems: NLP maintains that people process information through the five senses (visual, auditory, kinesthetic, olfactory, and gustatory). Understanding the predominant representational system of a person can improve communication.

Anchoring: Creating an association between an emotional experience and a specific stimulus, which can then be used to evoke that same emotion in the future.

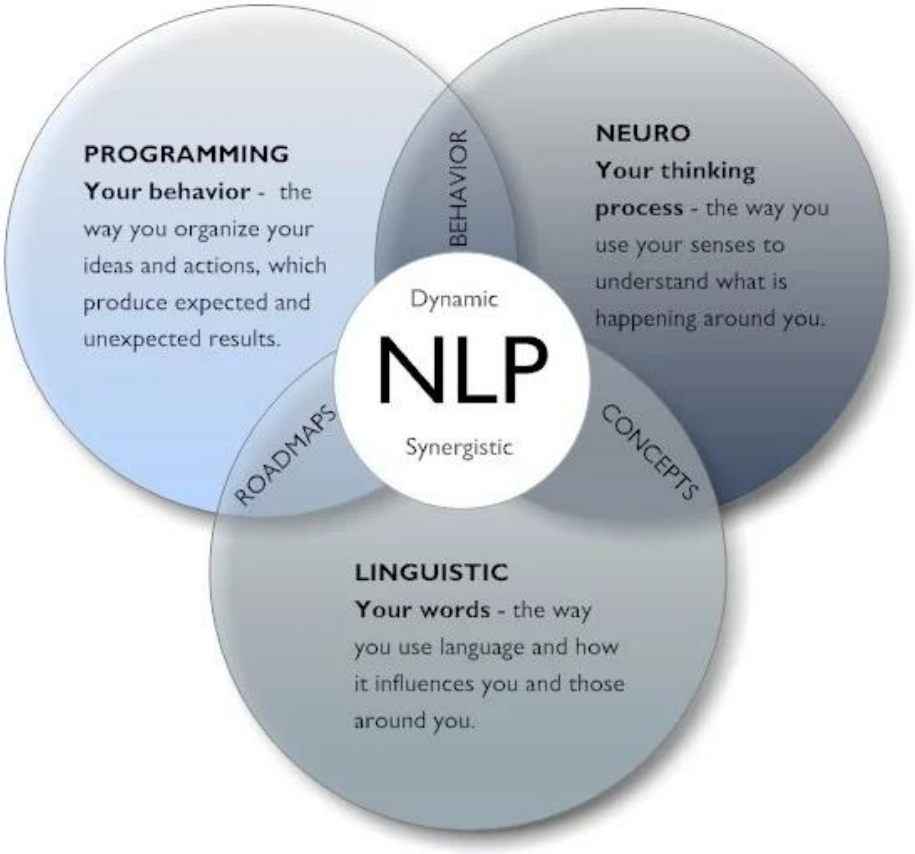


Image credits: https://www.melbournenaturalmedicine.com.au/neuro-linguistic-programming-nlp/

Effective communication is key to foster motivation in older adults' classrooms because socialisation in their case can be more difficult and they welcome every chance to socialise. The application of Neuro Linguistic Programming (NLP) in physical activity classes for the over-55s can offer several benefits, improving not only physical performance but also the mental and emotional well-being of participants.

Here is how NLP can be integrated into these classes:

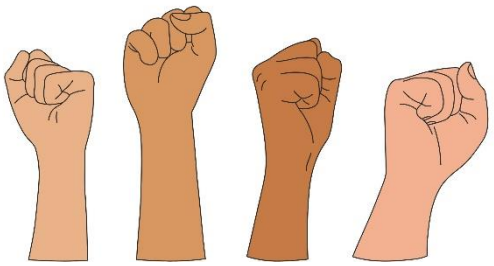
Specific goals

- Use NLP techniques to increase participants' motivation, helping them to maintain a constant commitment to physical activity.
- Help participants manage anxiety or fear related to exercise, especially if they have not been active for a long time.
- Increasing participants' confidence in their physical abilities and the possibility of improvement.

Examples of integrating NLP in adults or seniors classes

- **Anchoring**: create a positive anchor linked to a feeling of success or energy. For example, each time participants complete an exercise, they can be asked to make a **specific gesture** (such as clenching their fist) that they will associate with that positive feeling. By repeating this gesture during sessions, they can recall that same energy and motivation.

- **Visualisation**: guide participants through a positive visualisation before starting the physical activity. They could imagine themselves successfully completing the exercises, feeling strong and vital. This can help prepare the mind and body for the activity.
- **Reframing**: help participants change their perception of negative situations. If someone perceives an exercise as too difficult, the trainer can help them to see the exercise as a positive challenge and an opportunity to improve.



- Example from the interviews with teachers and students: if students struggle with an exercise (e.g.: a balance exercise), the trainer should first show empathy and understanding, and then shift the perspective by saying " let's look at it another way, this isn't just a difficult exercise; it's actually a sign that you're working on something important". The trainer then should focus on smaller, achievable goals rather than the whole exercise, which makes the task seem more manageable.
- **Modelling**: identify participants who display positive behaviours or attitudes towards exercise and encourage others to model these behaviours. This may include adopting specific routines, mental attitudes or exercise strategies.

Tips and Recommendations

Suggestions to apply in class:

- Start each class with a brief welcome session, creating an environment of support and encouragement. Use rapport techniques to build a trusting relationship with participants.
- Incorporate short motivational discussions at the beginning of each session, using success stories and visualisation techniques to inspire participants.
- Give positive feedback during exercises and use anchoring to create positive associations with physical activities.
- End each session with a guided reflection, where participants can share their experiences and positive feelings. Use reframing techniques to transform any negative perceptions.

Conclusions

In this chapter, we have seen that storytelling adds context, meaning, and emotional engagement, making the physical activity feel purposeful and relevant to the participants' lives. There's another factor that can be a key actor in training sessions with adults and seniors: music.

Positive reinforcement in adults and seniors involves recognizing and rewarding their efforts in a meaningful and appropriate way to encourage continued participation, improvement, and engagement. By fostering a sense of accomplishment, building confidence, and creating a supportive environment, positive reinforcement plays a vital role in helping them achieve their goals, whether in fitness, education, or other areas of personal development. Digital tools can significantly enhance communication and provide positive reinforcement in sports and training classes for adults and seniors. Through personalised feedback, social support, gamification, and real-time interaction, these tools not only motivate participants to stay engaged but also help them build confidence and recognize their progress.

Integrating NLP into physical activity classes for the over-55s can transform the exercise experience, making it more positive, motivating and supportive of participants' overall well-being. Participants will be more motivated to continue with regular physical activity, will gain more confidence in their physical and mental abilities and reduce exercise-related anxiety and improve general well-being.

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Quiz

1.

Why storytelling is an important communication method for the trainer?

a) Because it allows to have breaks during exercise
b) Because it gives the trainer the chance to show their communication skills
c) Because it gives way and time for students to start a chat with their peers
d) Because it is a feedback tool that can help improve methodologies and the effectiveness of teaching

2.

What should a trainer ask from a group of elderly students before a training session with music (either individually or to the group)?

a) “Does anybody feel unhappy?”
b) “Do you all like metal music?”
c) “Does anybody have hearing difficulties?”
d) “Does everyone like loud, upbeat music for today's session?”

3.

Which of the following is an example of effective positive reinforcement in a senior fitness class?

a) Ignoring participants who struggle but praising those who excel
b) Praising participants for their effort and improvement, regardless of their current skill level
c) Waiting until the end of the program to acknowledge any progress
d) Comparing participants to each other to motivate competition

4.

Why should a trainer feel encouraged to foster the use of technology for communication in a training class to adults (such as online platforms)?

a) Because it helps students with their digital skills
b) Because it gives the trainer private information about the students
c) Because it gives digital credit to the trainer with other trainers
d) Because it can encourage social interaction and create a sense of community among the students

5.

How can a trainer use the concept of "anchoring" from NLP to help seniors maintain a positive mindset during challenging exercises?

a) By associating a specific movement with a negative memory to increase effort
b) By linking a positive emotion (such as confidence) to a specific gesture or word, helping them feel more empowered
c) By telling participants to repeat the exercise until they succeed
d) By avoiding any emotional associations to keep training strictly physical

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8. SMART MOTIVATION

Written by Enikő Nagy
(TREBAG)

Overview	Facilitators, trainers, and coaches working with older adults constantly seek innovative ways to encourage lasting engagement in physical activity. With the rise of smart tools and digital solutions, they now have a unique opportunity not only to motivate older adults but also empower them to take control of their fitness journey. Digital technology is transforming the fitness landscape, offering personalised, accessible, and enjoyable experiences that support long-term health and well-being. This chapter describes the typical smart devices modern sport and society offers for older people to use in their physical activities. It depicts their potential motivational powers, but also hints on possible harships and challenges in using them and provides examples and best scenarios these could be used efficiently in this age group and what methodology a trainer or facilitator of physical activity can follow for the introducation and maintanance of these tools.
Objectives	• To describe the possibilities to improve digital literacy and the use of smart devices in sport and physical activity • To give guidance to trainers and facilitators on the smart motivational aspects for older people • To understand common fears and hopes in relation to smart devices
Learning Outcomes	• Learners will be updated on the potentials of the use of smart devices for motivation in PA • Learners will be familiarised with potential fears older clients might have with smart tools • Learners will be familiarised with potential hopes older clients might have with smart tools • Learners will be able to select and apply smart tools for motivation • Learners understand the importance of the use of smart tools for the age group • Learners will be committed to help combat fears of older people aganst modern technologies in sport and PA

8.1: Smart Tools as Instrumental Motivators

Introduction

Instrumental motivators are external factors that drive individuals to engage in physical activity by highlighting tangible benefits and outcomes (see chapter 2). In physical activity, these motivators create a direct link between effort and visible results, helping to sustain engagement, especially for older adults who may face challenges in maintaining a consistent exercise routine.

Smart tools, including fitness trackers, wearable devices, and digital health apps, have emerged as effective instrumental motivators. These technologies provide real-time feedback, enabling users to monitor their progress, set achievable goals, and adapt their activities based on personal data. Scientific research supports the effectiveness of these tools in promoting physical activity, particularly among older adults. Middelweerd et al. (2014) found that wearable devices and health apps improve adherence to physical activity routines by offering immediate insights and encouraging consistent effort. These digital tools not only enhance motivation but also offer a sense of control and empowerment, which is crucial for maintaining long-term engagement.

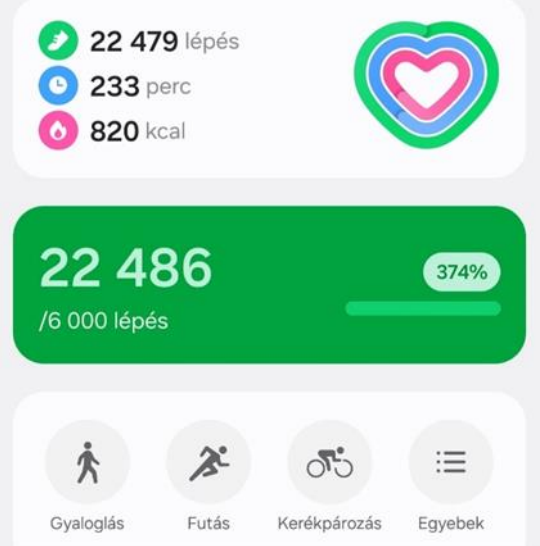
The Benefits of Smart Tools as Instrumental Motivators

As we could see, smart tools serve as powerful instrumental motivators, helping older adults stay engaged in physical activity. Below you can see the main benefits and how these digital tools enhance motivation and sustain long-term participation in fitness routines.

1. **Real-Time Feedback and Personalisation**

One significant benefit of smart tools is their ability to provide instant feedback and personalised goal-setting. For older adults, this means that fitness routines can be adjusted to match individual health statuses and fitness levels, making the process more relevant and achievable. This personalisation helps users see the immediate impact of their efforts, which is motivating. For instance, tracking improvements like increased steps or better heart rate control can encourage continued effort (Middelweerd et al., 2014).

In most devices you can set your daily limits and see if you have achieved them. In this Samsung Health application 6000 steps were set as a minimum goal per day, and over 22 000 were achieved. Various coloured parts of the heart image show the rate of accomplishment (100%-complete circles in the example below.



Source: printscript of a health app on own device.

2. Consistency and Long-Term Engagement

Smart tools also promote consistency in physical activity. Devices often include features like reminders and notifications that prompt users to move or exercise, helping to build and maintain a routine. Consistent use of these tools can lead to long-term health benefits, such as improved mobility and reduced fall risks (Williams & French, 2011).

3. Social Connection and Accountability

Many smart tools incorporate social features that enhance motivation. For example, virtual walking groups and fitness challenges within apps create a sense of community and accountability. Social support has been shown to be a strong motivator, especially when users can share progress and encourage each other (King et al., 2013).

Practical Examples of Smart Tools in Action

A case study by Munson et al. (2015) illustrates how smart tools can benefit older adults. In their 12-week walking programme, participants used wearable fitness trackers and health apps to monitor their steps. Results showed that participants increased their daily step count by 35% compared to those not using the tools. For example, a 68-year-old woman with joint pain used the tracker's real-time feedback to gradually increase her activity, leading to improved mobility and reduced discomfort.

The social component of the app also played a crucial role. Participants were divided into virtual walking groups, allowing them to compare progress and support each other. This sense of community and accountability kept participants motivated. By the end of the programme, many felt more committed to their fitness routines, thanks to the smart tools' supportive feedback and social features.

Recommendations for Facilitators and Trainers

Facilitators and trainers working with older adults should consider incorporating smart tools into fitness programmes to enhance motivation and engagement. Here are some recommendations:

- **Customise Goals**: Assist older adults in setting personalised fitness goals that align with their health needs and preferences. This makes the process of engaging in physical activity more meaningful and attainable.
- **Encourage Regular Feedback**: Facilitate regular reviews of the data collected by smart tools to help participants track their progress and celebrate their achievements. This reinforces motivation and supports long-term commitment.
- **Promote Social Engagement**: Utilise the social features of fitness apps to create group challenges or virtual communities. This can provide the social support needed to keep older adults motivated and accountable

8.2: Encouraging Digital Literacy for Enhanced Physical Activity

In the modern world, digital literacy is becoming increasingly important for engaging with smart tools and technologies that support physical activity. For older adults, developing digital skills can significantly enhance their ability to use fitness trackers, health apps, and other digital resources, leading to more effective and enjoyable physical activity routines.

Understanding Digital Literacy

Digital literacy refers to the ability to use digital tools and technologies effectively. For older adults, this includes understanding how to operate smartphones, navigate apps, and interpret data from fitness trackers. Digital literacy empowers individuals to take full advantage of these tools, making physical activity more accessible and personalised. Research by Choi et al. (2017) highlights that older adults who are comfortable with digital technologies are more likely to engage consistently in physical activity programmes, as they can effectively use tools to track their progress and set goals.

Benefits of Digital Literacy

> *"Digital support is motivating. Smart watches, on the one hand, help to control time and milestones achieved and on the other hand, virtual reality can offer pleasant contexts while practicing sports."*

Improved digital literacy can greatly enhance the effectiveness of smart tools. For one, it enables users to better understand and utilise the feedback provided by fitness apps and trackers. This understanding can lead to more informed decision-making about physical activity. For example, an older adult who knows how to interpret heart rate data can adjust their exercise intensity to match their fitness level and health goals and raise the number of their daily steps.

Moreover, digital literacy supports the adoption of new technologies. As fitness technology evolves, being digitally literate allows older adults to adapt to new tools and features with ease. This adaptability ensures they continue to benefit from the latest advancements in health technology, keeping their exercise routines up-to-date and effective.

Practical Examples

A case study by Holland et al. (2019) illustrates the impact of digital literacy on physical activity. In the study, older adults participated in a programme aimed at improving their digital skills, including using fitness apps and trackers. After the training, participants showed a marked increase in their use of these tools and, consequently, in their physical activity levels. For instance, one participant, who initially struggled with using a step-tracking app, improved their understanding through the programme and subsequently used the app to set and achieve daily walking goals and raise the number of their daily steps.

Another example is from Harris et al. (2020), where older adults were given workshops on using digital health platforms. Following the workshops, participants reported feeling more confident in using these platforms to monitor their activity and engage in virtual fitness classes. This newfound confidence led to increased participation in physical activity, as they were able to effectively use the tools to track their progress and stay motivated.

8.3: Common Fears and Hopes Related to Smart Devices in Physical Activity

Smart devices offer a range of benefits for physical activity, but they also come with a set of common fears and hopes, particularly among older adults. Understanding these concerns and aspirations can help trainers and facilitators address them effectively, ensuring that smart tools are used to their full potential in promoting physical activity.

Understanding Common Fears

For many older adults, the use of smart devices can evoke a range of fears. A primary concern is the complexity of technology. Older adults may worry that smart devices are too complicated to use or that they might struggle with technical issues. Research by Vaportzis, Clausen, and Gow (2017) indicates that unfamiliarity with digital technology can lead to anxiety and reluctance to engage with new tools. Trainers

should be aware that these fears can hinder the adoption of smart devices and strive to simplify the introduction and usage of these tools.

Another significant fear is related to privacy and data security. **Older adults often have concerns about how their personal health data is collected, stored, and used**. The potential for data breaches or misuse of information can make individuals hesitant to use smart devices. According to Wang et al. (2020), addressing these concerns through transparent communication and robust privacy measures is crucial in gaining trust and encouraging device use.

Data sheet template 1

Hopes and Aspirations

Despite these fears, many older adults hold positive hopes regarding smart devices. One key hope is the potential for improved health outcomes. Smart devices offer the promise of more personalised and effective management of physical activity, leading to better health and well-being. For example, fitness trackers can help users monitor their activity levels and set realistic goals, contributing to overall health improvements (Middelweerd et al., 2014).

Another hope is the enhanced motivation and engagement that smart devices can provide. Many older adults look forward to the interactive features of these tools, such as goal-setting, progress tracking, and social connectivity. Digital platforms that include virtual communities or fitness challenges can make physical activity more engaging and enjoyable, providing a sense of accomplishment and community (Suh, A., & Li, M, 2022).

Practical Examples

A case study by Choi et al. (2017) highlights how addressing fears and leveraging hopes can lead to successful outcomes. In the study, older adults who initially expressed concerns about using fitness trackers were provided with hands-on training and clear explanations about data privacy. **As their confidence grew, they began to appreciate the benefits of tracking their physical activity** and connecting with others through digital platforms. This approach not only eased their fears but also helped them realise their hopes for improved health and increased motivation.

Similarly, Baker et al. (2018) found that by offering comprehensive support and demonstrating the practical benefits of smart devices, older adults were able to overcome their initial apprehensions. Participants reported feeling more secure about their data and more enthusiastic about engaging in physical activity, thanks to the clear, user-friendly features of the devices and the supportive training they received.

Tips and Recommendations

To effectively address fears and nurture hopes related to smart devices, trainers and facilitators should:

- **Simplify Technology**: Provide easy-to-understand training sessions that break down the usage of smart devices into manageable steps. Hands-on demonstrations can help build confidence and reduce anxiety about technology.
- **Ensure Data Security**: Clearly communicate how personal data is protected and offer assurances about privacy. Implementing and highlighting strong security measures can help alleviate concerns about data misuse.
- **Highlight Benefits**: Emphasise the positive aspects of using smart devices, such as improved health outcomes and enhanced motivation. Demonstrating real-life examples of how these tools have benefited others can inspire confidence and enthusiasm.

Conclusions

Smart tools are effective instrumental motivators that can significantly enhance physical activity among older adults. By providing real-time feedback, personalising fitness goals, and fostering social connections, these tools make physical activity more engaging and rewarding. Encouraging digital literacy is essential for maximising the benefits of smart tools in physical activity. By improving digital skills, older adults can better utilise fitness trackers and health apps, leading to more effective and engaging physical activity routines. Facilitators and trainers who integrate these technologies into their programmes and who encourage the use of digital technologies can help older adults overcome barriers to exercise, improve their health outcomes, and maintain a long-term commitment to an active lifestyle. Also, understanding and addressing the common fears and hopes related to smart devices is essential for fostering positive engagement among older adults. By simplifying technology, ensuring data security, and highlighting the benefits, trainers and facilitators can help older adults overcome their concerns, embrace the potential of smart tools, and enjoy the many advantages they offer for physical activity.

Resources

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Quiz

1.

What is one primary benefit of using smart tools for physical activity in older adults?

a) The ability to monitor and adjust activity based on personal data
b) Access to high-intensity workouts tailored to younger users
c) Screens are easier to set
d) Reduced frequency of physical check-ups due to consistent monitoring

2.

What can be common fear older adults may have regarding smart devices for physical activity and private life?

a) Privacy and data security concerns
b) Overreliance on technology for physical activity guidance
c) Difficulty interpreting the device's feedback and features
d) Potential for high costs associated with advanced features

3.

What is the most important social features in smart tools help older adults in trainings?

a) They allow real-time performance comparisons with younger family members
b) They offer opportunities for remote coaching sessions
c) They promote friendly competition and engagement within a group
d) They foster a sense of community and accountability

4.

What is the key recommendation for trainers to help older adults overcome their fears about smart devices?

a) Focus on privacy options within the device settings
b) Simplify technology through manageable, step-by-step training sessions
c) Emphasize in-person interactions over device reliance
d) Use devices only in advanced stages of training to avoid initial confusion

5.

How does digital literacy benefit older adults in relation to smart tools for physical activity?

a) It ensures they can follow instructor-led offline classes with ease
b) It enables them to make decisions what sport to choose
c) It helps them reduce the time spent using devices and avoid overdependence
d) It helps users interpret fitness data and adapt activity to their fitness level

QUIZ SOLUTIONS

CHAPTER 1:

1. b) Fear of falling and getting injured
2. b) To maintain health and mobility for independent living
3. b) Anchoring effect
4. c) Hedonic motivation
5. d) Positive incentives

CHAPTER 2:

1. b) Intrinsic motivation comes from personal enjoyment and satisfaction, while extrinsic motivation involves external rewards or recognition.
2. c) Walking daily because you value maintaining your independence and health.
3. b) They can lead to a decrease in intrinsic motivation over time.
4. c) Relying solely on external rewards to stay motivated.
5. c) They provide tangible benefits like improving health, which can reinforce long-term engagement.

CHAPTER 3:

1. b) Social, cognitive and balance components
2. c) Integrating multiple fitness components to maintain functionality and autonomy
3. c) Being fully present and aware of sensations and thoughts during physical activity
4. c) Endorphins, serotonin, and dopamine
5. c) Enhanced concentration and reduced stress

CHAPTER 4:

1. d) All the above
2. c) Positive emotions
3. c) 40%
4. b) Hedonic well-being increases and Eudemonics well-being declines
5. d) All the above.

CHAPTER 5

1: d) A and B together in- class and in asynchronous training regime (class + individual home practice)
2: b) Applying game design elements in non-game context to enhance motivation, game-like experiences, and problem solving.
3: c) Gamification activates a special state of mind when times goes by without noticing it, feelings of engagement, curiosity and entertainment, reducing worries and stress
4. d) None of the above.
5. b) Empowerment, Unpredictability, Social connections.

CHAPTER 6:

1. a) I regularly include team-based activities or partner exercises.
2. d) I design activities that require teamwork and encourage participants to support one another.
3. c) I regularly adjust exercises to suit different ability levels and encourage participants to support one another
4. b) Encourage open communication and regularly provide positive reinforcement to motivate participants and help them feel confident.
5. c) A good vibe

CHAPTER 7:

1. d) Because it is a feedback tool that can help improve methodologies and the effectiveness of teaching
2. c) “Does anybody have hearing difficulties?”
3. b) Praising participants for their effort and improvement, regardless of their current skill level
4. d) Because it can encourage social interaction and create a sense of community among the students
5. b) By linking a positive emotion (such as confidence) to a specific gesture or word, helping them feel more empowered

CHAPTER 8:

1. a) Real-time feedback and personalisation
2. a) Privacy and data security concerns
3. d) They foster a sense of community and accountability
4. b) Simplify technology through manageable, step-by-step training sessions
5. d) It helps users interpret fitness data and adapt activity to their fitness level

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SMART MOTIVATIONAL HANDBOOK & TOOLKIT