

## RACE4LIFE

Sport-based behavior change protocol for people under SUD recovery

# CONCEPTUAL FRAMEWORK



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# The role of Sport in Addiction Recovery

Play, feel, meet, live



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## INTRODUCTION

The use of psychoactive substances has a significant negative influence on public health, with major consequences for the morbidity and death of individuals who are actively involved. The World Report on Drugs (UNODC, 2021) estimates that more than 5% of individuals worldwide have used psychoactive drugs at least once in their lifetimes, a 20% increase over the prior 10 years.

Opioids, particularly heroin, are the substances that have the greatest negative impact on the health of users. In 2020, 28 million years of "healthy life" are estimated to have been lost due to early mortality and disability as a result of drug use globally (UNODC, 2021). Substance abuse and dependence have recently been included under the more general term "Substance Use Disorders" (WHO, 2010). Each of the various theories that exist to explain drug use disorders—psychological, biological, sociological, economic, and sociocultural—offers crucial insights for the study of the problem (WHO, 2019; West & Brown, 2013).

Individuals living with SUD, frequently have one or more medical disorders, which greatly increases their death rates compared to the general population. According to the World Drug Report, drug use is considered to be the main means of spreading infectious illnesses, including AIDS and HIV, TB, and hepatitis B and C (UNODC, 2021). Drug users, especially those who inject drugs, are at risk of contracting infectious infections since they share syringes or don't use condoms (NIDA, 2018; EMCDDA, 2017).

Addiction is the most serious SUD because it is characterised by uncontrolled and repeated use, which leads to a poor physical and emotional state. Addiction is a chronic, relapsing brain disorder that may be treated and recovered, according to medical standards (SAMSHA 2019). Addiction involves a combination of mechanisms in which environmental factors, situations, and personal characteristics interact to create conscious or unconscious motivations based on the pursuit of pleasure and satisfaction or the avoidance of intense discomfort (West, 2013).



## MODELING THE ADDICTION

The reward, motivation, memory, and associated circuitry of the brain are fundamentally and permanently altered by addiction. Failure of these circuits has observable bodily, psychological, social, and spiritual consequences. This is demonstrated by the person's usage of drugs and other behaviours for relief and/or enjoyment. As a result, a dysfunctional emotional reaction, impaired awareness of serious issues with one's conduct and interpersonal connections, and impairment in behavioural control are all signs of addiction.

The formation of addiction results from either a person's pre-existing traits or the acquisition of traits that, when combined with a particular set of environmental conditions, give rise to intense urges to engage in dangerous behavioural patterns. (West, 2013). Addiction is the need for a person to continuously experience the high that the substance creates, which eventually leads to dependency (NIDA, 2018). The various consequences that addiction has on a person's life are what define how severe the addiction is; substances alter a person's structure and function, resulting in long-term change that may result in harmful behaviours (Robinson & Berridge, 2001; NIDA, 2018).

As a consequence, addiction shapes cognitive and behavioural dysfunctions, undermining thinking so that it is unrealistic or disorganized while gradually deconstructing individual values so that they are confused, nonexistent, or antisocial (De Leon et al., 2015). A deeper investigation leads to the conclusion that addiction is an adapted behaviour of habit, motivation, and reward, both to avoid withdrawal symptoms and to enhance pleasure (Adinoff, 2004; Robinson & Berridge, 2001; Everitt et al., 2008; West, 2013).

Exploring this two-way hedonic hypothesis is crucial to understanding how addiction develops because addictive substances are used to produce a highly pleasurable state that serves as both the initial and main motivation for use and to prevent unpleasant withdrawal symptoms or manage unpleasant emotions (Robinson & Berridge, 2003). Addiction, in general, entails learning associations between cues, responses, and powerful positive or negative reinforces (West, 2013).



Addiction is caused by the satisfaction and pleasure that the behaviour (such as drug use) produces. Addiction includes a variety of mechanisms whereby external circumstances, psychological states, and personality traits combine in order to develop conscious and unconscious drives focused on seeking pleasure or satisfaction or avoiding discomfort. Higher levels of pleasure and satisfaction are linked to a higher likelihood of addiction. Physical or psychological needs arise as a result of engaging in addictive behaviour, and the addictive behaviour then satisfies these needs (West, 2013).

The DSM IV recognises poor decision-making as a major contributing factor and includes continued drug use despite knowledge of harmful consequences and lack of control over intake as diagnostic criteria for drug dependence. Decision-making skills are essential for the development and maintenance of addictive behaviours (Goudriaan et al., 2008). Addiction involves rational decision-making that prioritises the advantages of the addicted behaviour over the disadvantages, often affected by emotional states. Individual drug use decisions and attitudes may explain a significant portion of the variability in potential addiction (Fooladvand et al., 2017). In actuality, addicts decide to engage in addictive behaviour, and recovery involves choosing not to engage in it. The decision-making process always entails evaluating the benefits and costs, regardless of whether it is biased or rational.

Furthermore, the compromises in addiction might be due to an underlying lack of insight and self-awareness, which could be caused by abnormalities in specific brain areas (Goldstein et al., 2009). Addicts acquire addictive behaviours through mechanisms that shape human behaviours without conscious decisions or intentions which are influencing their capacity for self-regulation. As a result, addiction prevention and treatment may benefit by teaching practical decision-making approaches and adverse attitudes toward substances (Fooladvand et al., 2017).

"Problem-solving ability" refers to the ability to address oneself to the successful resolution of real-life problem circumstances. An individual may either address an issue and make active attempts to fix it or avoid it and concentrate only on managing the emotions associated with it. Individuals can use drugs or alcohol as an avoidance strategy to solve common real-life problems, particularly those related to substance abuse (Forys, McKellar & Moos, 2007; Platt et al., 1973). Lack of self-efficacy is one of the most powerful determinants of relapse in substance misuse (Allsop et al., 2000; Vielva & Iraurgi, 2001).



Active engagement in problem-solving strategies enhances abstinence. Extending the behavioural repertoire and increasing the variety of problem-solving skills that may be applied in daily life should be among the treatment's primary goals (Demirbas et al., 2012). To assist the addict, develop habitual thinking about options, outcomes, resources, alternative perspectives, as well as the social influences on the addict's own choices, cognitive problem-solving skills are recommended (Platt & Metzger, 1987).

Setting long-term goals may be compromised because drug use disorders are characterised by an inability to trade long-term pleasure for short-term satisfaction. Deficits in goal-setting may be the treatment's primary goal. Setting therapeutic goals with patients might be the initial practice in this skill-building process (McHugh et al., 2010).

Social skills may be severely impaired in those with SUD. This is due to drug abuse producing long-term neurotoxic effects on the brain, mainly the prefrontal cortex (Uekermann & Daum, 2008). Depression, anxiety, and stress symptoms can make it difficult for individuals to express socially skilled repertoires, which has a negative effect on their quality of life. The culture of illegal drug use differs significantly from a more mainstream society in terms of illegitimate behaviours (such as prostitution, theft, and drug distribution) and the emphasis put on particular abilities (e.g., the necessary skills to conduct a drug trade).

Additionally, long-term drug users frequently have serious life consequences like unemployment, family problems, and a loss of social networks (McHugh, et al., 2010). Individuals with SUD have difficulties comprehending both interpersonal and intrapersonal emotions, which makes it harder for them to act correctly in social environments (Maurage et al., 2017; Nixon et al., 1992). More frequent and/or intense unpleasant emotions aren't always a bad thing; people who can control their emotions are less likely to incur negative consequences (Lynch et al., 2001). In the field of substance abuse, emotional regulation disorders have been linked to both substances abuse and coping mechanisms.

It's likely that people who have more frequent and severe negative emotions abuse drugs as a coping mechanism since they can't regulate their feelings any other way (Bonn-Miller et al., 2008, Merrill & Thomas, 2013). Studies have shown that emotional regulation deficits are both a cause of and a result of drug use (Berking et al., 2011; Watkins et al., 2015), with emotional and interpersonal problems being a major factor in more than half of relapses during SUD treatment (Zywiak et al., 2003). The capacity to refuse and express negative feelings can significantly increase as a result of social skills training.



The shift in social and environmental settings associated with drug use vs. non-use presents a particular problem as a result. In this context and due to the fact that individuals with SUD have social skill impairments, social skills training has been recognized as an essential aspect of the recovery process.

High impulsivity appears to be linked to addiction. Impulsivity is a frequent phenomenon among addicts, both in substance-related and behavioural addictions, as they frequently act in ways that provide immediate rewards but in a harmful way (Grant et al., 2010). In this context, drug abusers have been found to have lower levels of conscientiousness (Terracciano et al., 2008). These findings support the idea that poor emotional management is linked to poor self - control and a higher likelihood of addiction. (Leite et al., 2019).

Addicts usually experience unpleasant withdrawal symptoms and overwhelming cravings that make it difficult for them to quit abstinence. Immediate impulses and cravings that underlie addictive behaviour, lead to the failure of an individual's strategies, skills, and capacity for self-control; this failure can be partially attributed to "ego depletion." Many addicts express all the characteristics necessary to control in or stop their addictive behaviour, yet they still feel overwhelmed (West, 2013).

Addiction involves, or at least begins with, imitation of behaviour patterns and assimilation of ideas and identities (West, 2013). An approach that interprets addiction is the investigation of the vulnerability that can arise from a lack of identity, that is, the image that the person has created for himself (Kearney & O'Sullivan, 2003). In this regard, it should be emphasized that the individual's personality plays a decisive role in the development of addictive behaviors, as individual characteristics such as stimulation seeking, combined with insufficient impulse control, low self-esteem, and inability to cope of stress and anxiety, may contribute negatively in this direction (Grekin, Sher, & Wood, 2006; Flory et al., 2002).

It is particularly important to mention that, in many cases, addiction and substance use satisfy important pre-existing psychological needs (e.g. depression, anxiety, etc.), which are covered by addictive behaviors, in turn affecting both engagement as well as potential retention in treatment (Jane-Llopis & Matytsina, 2006).

Finally, it would be remiss not to emphasize that, in the search for causes, research has also focused on investigating the genetic characteristics that may lead to addiction and dependence (Mayfield, Harris, & Schuckit, 2008). Evidence suggests that people may inherit an increased likelihood (vulnerability) of developing addictive behaviors, with family history of SUD being one of the strongest predictors of risk (Kendler et al., 2010).





## MOTIVATION

It is widely accepted that SUD treatment is a behavioural change process in which individuals are assisted in coping with addiction, restoring their physical and psychological health and well-being, and attempting to reclaim their social functioning (NIDA, 2017). As already mentioned, SUD has been characterized as a chronic condition that often includes occasional relapses. Consequently, treatment should be an ongoing process involving a variety of complementary behavior change interventions. An important factor that is a prerequisite for the successful change of addictive behavior, which acts as a "mediator" of therapeutic results, is the formation and strengthening of the motivation that will lead the addicted person to change (Simpson, 2001).

Motivation leads individuals to resolve their ambivalence about making lifestyle changes, increasing the likelihood that they will commit to implementing a specific behavior change plan (Miller & Rollnick, 2013). According to SAMHSA (2019), motivation is the key to changing substance use behavior and in SUD treatment is the focus of clinical interest. Motivation and readiness to change are consistently associated with increased help-seeking, adherence, and completion of SUD treatment (Miller & Moyers, 2015). However, not all individuals enter treatment with the same level of motivation or problem severity (Katz et al., 2004). Consequently, understanding the role of motivation in SUD treatment is very important to better understand the risks of relapse and treatment retention. It is easy to conclude that motivation is a strong predictor of treatment outcome as its lack is linked to the failure of addicted individuals to join and continue their therapeutic course (Bilici et al., 2014; DiClemente et al., 2017; Miller & Moyers, 2015).

However, for many years, motivation was approached as a static rather than a dynamic characteristic, that was exclusively associated with the individual and its own responsibility (Miller & Rollnick, 1991). This trend has tended to change in recent years, as SUD treatment counselors, utilizing motivational techniques and strategies, can lead individuals to positive change (SAMHSA, 2019). Mobilization strategies are associated with greater treatment engagement as well as positive outcomes in health-related behavior change (DiClemente et al., 2017; Lundahl et al., 2013). Today, SUD therapy focuses on strengthening individuals' skills and abilities and supporting the enhancement of their motivation, to increase the likelihood that they will commit to a specific behavior change plan (Miller & Rollnick, 2013).



## SUD RECOVERY CAPITAL

Cloud and Granfield (2009) revisited an initial concept and argued that there are four components to recovery capital:

**Social capital** is defined as the sum of resources that each person has because of their relationships and includes both support from and obligations to groups to which they belong; thus, family membership provides support but will also entail commitments and obligations to the other family members.

**Physical capital** is defined in terms of tangible assets such as property and money that may increase recovery options (e.g., being able to move away from existing friends/networks or to afford an expensive detox service).

**Human capital** includes skills, positive health, aspirations and hopes, and personal resources that will enable the individual to prosper. Traditionally, high educational attainment and high intelligence have been regarded as key aspects of human capital and will help with some of the problem-solving that is required on a recovery journey.

**Cultural capital** includes the values, beliefs, and attitudes that link to social conformity and the ability to fit into dominant social behaviour

### What does this mean for professionals and SUD recovery agencies?

As Laub and Sampson (2003) have reported with respect to the predictors of long-term desistance from crime, it is not direct treatment that will trigger the growth of recovery capital; rather, it is likely to be a range of life events and personal and interpersonal transitions:

- attachment to a conventional person
- stable employment
- transformation of personal identity
- ageing
- interpersonal skills
- and – life and coping skills



### *What kinds of experiences do individuals living with SUD need?*

**Recovery** does not happen in isolation – it is generally learned from other people who have gone down the same road and who ‘mentor’ or model the methods and principles of recovery.

**Recovery** happens in the community, not in the clinic. While formal treatments help many people, the recovery journey will continue long after the completion of specialist interventions. This does not mean that there is no role for specialist treatment, but treatment is only the start of the recovery journey, and it will not be needed by everyone who seeks recovery.

**Recovery** takes a long time – for most people the journey to stable recovery will take around five to seven years after the last use of the substance, long after the physical part of the process has been managed.

**Recovery** is better predicted on someone’s strengths, rather than their weaknesses, and so much of the focus of interventions is on helping individuals to build recovery strengths, more often referred to as ‘recovery capital’.


For others, **recovery** will result in leaving behind their ‘addict identity’ as they move away from addict groups and communities into ‘mainstream’ roles in society and they protect their identity by breaking the links with their addicted past.”

Behavioral therapies—including individual, family, or group counseling— are the most commonly used forms of drug abuse treatment. Behavioral therapies vary in their focus and may involve addressing a patient’s motivation to change, providing incentives for abstinence, building skills to resist drug use, replacing drug-using activities with constructive and rewarding activities, improving problem-solving skills, and facilitating better interpersonal relationships. Also, participation in group therapy and other peer support programs during and following treatment can help maintain abstinence.

Psychosocial interventions are structured psychological or social interventions used to address substance-related problems. They can be used at different stages of drug treatment to identify the problem, treat it and assist with social reintegration. Psychosocial interventions are used to treat many different types of drug problems and behavioural addictions. Clients are helped to recognize the triggers for substance use and learn strategies to handle those triggers. Treatment providers work to help patients to identify alternative thoughts to those that lead to their drug use, and thus facilitate their recovery. Psychosocial interventions can help drug users to identify their drug-related problems and make a commitment to change, help clients to follow the course of treatment and reinforce their achievements (Jhanjee, 2014; EMCDDA, 2016; Murthy, 2018).



## DESIRED NEW BEHAVIOR



*Exercise and sport programmes are promising, accessible, and straightforward strategies for individuals living with SUD to build their human capital.*

A set of cognitive, socio-psychological, interpersonal, and behavioural abilities together referred to as "life skills" support an individual's choice of an active, healthy lifestyle as well as its ability to make informed decisions and communicate successfully. Life skills, which include self-awareness, empathy, assertiveness, equanimity, resilience, and general coping skills, are abilities that help individuals living with SUD adopt a positive attitude and successfully deal with the demands and problems of daily life.

Life skills can organize personal, interpersonal, and environmental actions in a way that leads to better health, which in turn leads to more physical, psychological, and social comfort. These skills allow individuals living with SUD to accept the responsibilities of social roles and effectively address one's own demands and expectations. Life skills training is a holistic approach to developing values, skills, and knowledge in individuals living with SUD, helping them to protect themselves and others in a number of risky situations.

## THE ROLE OF SPORT

Regular physical exercise has been linked to multiple benefits for the treatment of substance use disorders in recent years, with a number of studies demonstrating its multifaceted role (Thompson et al., 2020). Indeed, there is evidence to suggest that exercise, via psychological, behavioural, and physiological mechanisms, improves many different aspects of the physical and mental health of people living with SUD, resulting in improved well-being and quality of life. In this regard, the United Nations Office on Drugs and Crime (UNODC, 2017) recommends its use as an important and integral part of prevention and treatment, citing it as a very promising, affordable, and easily accessible complementary treatment option.

Exercise works perfectly in supporting individuals undergoing SUD recovery, offering significant physical, psychological, and social benefits. Exercise can cause pleasurable states, with changes in neurotransmission, while contributing to the normalization of changes in glutamic and dopaminergic signaling observed in mono paths from prolonged abstinence from substance use, thus reducing relapse vulnerability (Zschucke et al., 2012; Lynch et al., 2010). Furthermore, exercise can assist individuals living with SUD in "feeling" their bodies differently and intending to regain their body image before substance abuse (Diamantis et al., 2017; Roessler, 2010). Concurrently, through exercise, they can manage their weight, improve their fitness, and regain their vitality, likely resulting in an improved quality of life and more optimistic prospects for the future (Giménez-Meseguer et al., 2015; Roessler, 2010; Muller & Clausen, 2015).

At the same time, as substance abuse can be interpreted as a non-adaptive coping strategy for stressful, unpleasant, and difficult situations, exercise has been proposed to provide alternative coping strategies for these unpleasant emotions (Zschucke et al., 2012; Lynch et al., 2010).

As the craving for substance use is a key factor in relapse and discontinuation of recovery, the search for strategies and tools to address it is a major concern, especially during early-stage recovery. Studies in this area suggest that exercise can effectively alleviate levels of craving for substance use by enhancing abstinence (Buchowski et al., 2011; Brown et al., 2010; Ellingsen et al., 2020; Giménez-Meseguer et al., 2015; Zschucke et al., 2012; Panagiotounis et al., 2022; Roessler, 2010; Wang et al., 2014).

*Exercise and sport programs can be utilized as "here and now" interventions in SUD recovery, as well as a lifelong behaviour for individuals living with SUD*





When it comes to mental health, negative mood, anxiety, stress, and depression are all negative prognostic factors for recovery outcomes because they are linked to a high risk of relapse. According to current research, the beneficial effects of exercise appear to contribute to the effective management and reduction of anxiety and depression symptoms in individuals living with SUD (Caviness et al., 2013; Ellingsen et al., 2020; Giménez-Meseguer et al., 2015; Panagiotounis et al., 2022a; Wang et al., 2014; Zschucke et al., 2012). Research has shown that individuals living with SUD with high baseline cognition and low baseline depression are less likely to benefit from exercise (Rethorst et al., 2021).

*Exercise and sport programmes can improve physical and mental health, thereby improving the quality of life and well-being of individuals living with SUD*



A non-drug-related social network is frequently important in preventing relapse (Stevens et al., 2015; Spohr et al., 2019). Individuals living with SUD are socially isolated during recovery because they coexist with a small number of people in their daily lives (Roessler, 2010). Participating in group exercise programs can assist them in improving their communication skills, developing positive interpersonal relationships, managing conflict, and tolerating frustration, resulting in a significant improvement in the social domain of their quality of life (Zschucke et al., 2012; Giménez-Meseguer et al., 2015).

*A sport environment can be beneficial to individuals with SUD in terms of their social and emotional well-being.*

Another way that exercise appears to benefit individuals living with SUD is that it improves their self-concept. Individuals living with SUD have low self-efficacy and self-esteem. Exercise may improve an individual's ability to maintain abstinence by increasing their effectiveness through a sense of accomplishment (Caviness et al., 2013; Giménez-Meseguer et al., 2015; Panagiotounis et al., 2020; Weinstock et al., 2017).

Finally, exercise and sport can provide a safe learning environment in which targeted interventions can be implemented to train individuals living with SUD in behavioral change and skill development strategies (Panagiotounis et al., 2022b) that they can apply to other aspects of their lives, such as work and education (formal and non-formal). Additionally, it seems that exercise improves working memory (Chen et al., 2021).

*By redirecting unproductive leisure time, exercise and sport programmes can enhance how people with SUD manage their leisure time.*



## BEHAVIOR CHANGE INTERVENTIONS



Long-term habit and behaviour change is the goal of behavioural change with most of the studies on health-related behaviours showing that even minor changes may have a big impact on people's health and life expectancy (Davis et al., 2015). Behaviour change interventions are effective in supporting individuals in achieving temporary behaviour change. Behaviour change maintenance, however, is rarely attained. (Kwasnicka et al., 2016). Findings showed that intentions have less impact on behavior when participants lack control over the behavior (Webb & Sheeran 2006). To maintain behaviour, individuals require at least one consistent motivator. These might include the enjoyment of the behaviour, satisfaction with the results of the behaviour, self-determination, or a sense of the behaviour being consistent with one's values and beliefs (Kwasnicka et al., 2016).

It is likely that individuals start behaviour change attempts at times when their motivation is at the highest and opportunity costs are low, thus the need for self-regulatory effort is increased in order to ensure that the new behavior continues despite less than-optimal conditions. (Kwasnicka et al., 2016). On the other hand, according to Verplanken & Roy (2016), people change attitudes and behaviour only if the alternatives offered are sufficiently convincing or beneficial. The reason for a behavior change should be for positive gain rather than the loss of a negative (Gollwitzer, 1999)

Whether automatic and habitual or under conscious control, behaviour always takes place in the context of the social and environmental factors that either help or impede the maintenance of behavioural change. Stable contexts make behaviour and habits easier to maintain, much like when behaviour is first changed. Therefore, ecological conditions are crucial for both the initiation and maintenance of behaviour (Kwasnicka et al., 2016).





## BEHAVIOUR CHANGE MODELS

There is clear evidence that interventions for behaviour change can successfully modify behavior (Kwasnicka et al., 2016). Thus, understanding behaviour and behaviour change is important to maximise the potential efficacy of interventions; in other words, establishing a theoretical understanding of behaviour change is necessary. The knowledge of the processes of action (mediators) and moderators of change, as well as the underlying presumptions about what constitutes human behaviour and the factors that impact it, are represented by theory (Davis et al, 2015). The intervention may thus be properly focused on the causal drivers of change and the antecedents of behaviour, so the components of behaviour change strategies can be selected, refined, and/or adapted (Davis et al, 2015).

Supporting research to identify whether unsuccessful interventions have failed, enables more effective intervention improvement. The understanding of how to change behaviour across various populations, behaviours, and contexts is therefore covered by theory. Thus, theory-based interventions offer an opportunity to put theory to the test. This promotes the development of more practical theories, which in turn encourages the optimization of interventions (Michie et al., 2008; Michie & Prestwich, 2010).

In an effort to understand and make sense of how and why our behaviours change, several theories have been developed. It is wise to follow a theory while attempting to change behaviour. This is due to theories being inherently supported by evidence. This implies that they will guide you toward solutions in a way that increases your confidence in the likelihood that they will be effective.

## RACE4LIFE PROJECT MODELS OF BEHAVIOR CHANGE

Understanding health behaviour and designing interventions to improve it have both been done using a variety of behaviour change models. These include the COM-B model, goal-setting theory, and self-determination theory, among others. The motivation for SUD therapy and adherence to treatment are just two examples of the issues that behaviour change approaches based on these have addressed. For its use, each of these models has a link with behaviour change techniques (BCTs). The specific components of interventions for behaviour change are classified as BCTs (Michie et al 2013).



## COM-B

The COM-B model illustrates the fact that a certain behaviour will only take place at any one time if the individual involved has the capacity and opportunity to do so and is more motivated to do so than to engage in any other behaviours (Michie et al., 2011; West, 2013). In this sense, changing one's behaviour involves attempting something new or different.

**Capability** refers to the physical or psychological capacity to engage in the behaviour in question. This capacity resides within the individual. It includes knowledge and understanding as well as physical and mental skills and facilities. It also includes the capability to resist impulses to engage in an action as well as the ability to engage in an action.

### **Physical**

Having the motor skills and anatomy required to enact the behaviour.

### **Psychological**

Having the knowledge and intellectual and self-regulatory capacity to enact the behaviour.

**Opportunity** refers to the environmental factors that permit a behaviour to occur or promote it. This may involve the physical environment, including, for example, availability of a given drug or cues that prompt people to consider taking the drug as an option. It may also involve the social environment, including social mores that make it possible to entertain the idea of using a drug.

### **Physical**

Environmental factors that enable or prompt the behaviour to occur.

### **Social**

Social factors that enable or prompt the behaviour.

Motivation refers to mental processes that energize and direct behaviour. It extends beyond the narrow confines of self-conscious, reflective reasoning and choice and into processes that have been labeled 'automatic'. Thus, it includes impulses and desires that we are not necessarily reflecting on, or able to reflect on, at any given moment.

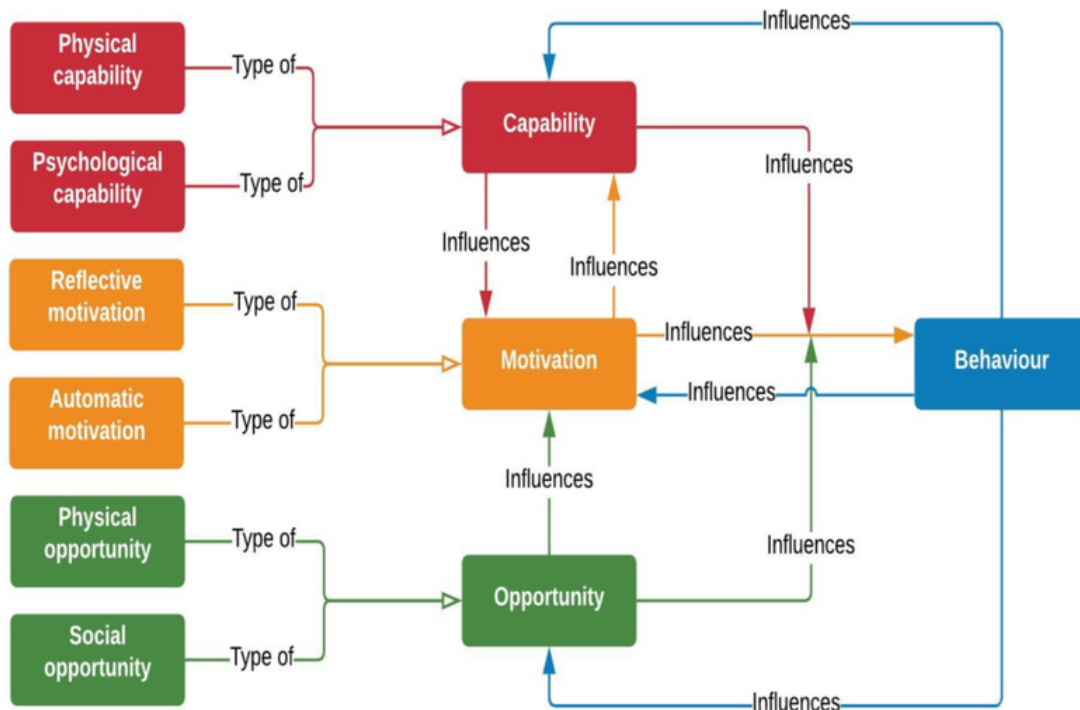
### **Reflective**

The Self-consciousness analysis leads to a decision or intention to perform an action.

### **Automatic**

Learned and unlearned associative processes leading to feelings, impulses, or counter-impulses.





West & Michie, (2020)

According to the COM-B model, addiction is viewed in terms:

- of an individual's psychological and physical capacities (such as the capacity for self-regulation, the ability to learn, the ability to formulate and follow personal rules)
- opportunities provided by the social and physical environment (such as social and environmental cues, the availability of alternative sources of reward)
- competing motivations active at relevant moments (e.g. need for belonging, the anticipation of pleasure or satisfaction, the anticipation of relief from craving, fear of disapproval).

The factors that could be taken into account for sport trainers working in SUD recovery under each of capacity, opportunity, and motivation are listed in the table below.

<b>Capability -Psychological</b>	Sport Trainers need the knowledge of what to say, the skills on how to do it and the memory and attention to remember to give very brief advice
	Sport Trainers behaviour is influenced by the perceived effectiveness of sport to lead to behavior change in their clients
	Sport Trainers need to understand the role of sport and exercise participation in behavioral change for people living with SUD
<b>Capability -physical</b>	The physical health to deliver sport and exercise program
<b>Opportunity Physical.</b>	Lack of guidelines and lack of knowledge
	Sport Trainers have limited sources
<b>Opportunity Social</b>	Sport Trainers need the support of this practice in the workplace
<b>Motivation Reflective</b>	Sport Trainers must have the belief that this is the right thing to do for their clients, and the confidence to deliver the RACE4LIFE sport-based protocol
	Sport Trainers who believe that sport and exercise participation can facilitate behavior change are more likely to deliver BCTs in everyday practice
	Sport Trainers perceptions of the abilities and interests of their clients to be physically and emotionally active impact their reflective motivation to give advice.
<b>Motivation Automatic</b>	The delivery of BCTs on sport participation needs to be a routine part of sport trainers working in the field

## SELF DETERMINATION THEORY

According to the theory, sustaining behaviors over time requires individuals to internalize values and skills for change and experience self-determination. Specifically, the theory posits that, for behaviors to become more internalized and sustained, behavior change is influenced by the extent to which individuals satisfy the basic psychological needs of autonomy, the need to feel competent, and the need to develop meaningful relationships with others (Ryan & Deci, 2000). When the social environment facilitates these three basic needs, individuals are more likely to engage in intrinsically motivated behaviors (Flannery, 2017).

The need for **autonomy** refers to the extent to which individuals feel autonomous and responsible for their own behaviour (Ryan & Deci, 2002). Autonomy contrasts with control, as strategies that support autonomy include providing choices, acknowledging emotions, and allowing individuals to self-determine their desired behavior, whereas control strategies include setting goals by others and directing others to change (Flannery, 2017). Indeed, many individuals, in the process of behavior change are guided by either a controlled motivation or an external regulation, in which the individual acts only to get m Thus, to successfully enact and maintain these behaviors, outside of therapeutic settings or controlled environments, individuals must value the behaviors and personally support their importance (Ryan et al., 2008).

Along with a sense of autonomy, internalisation requires a person to experience confidence in themselves that they have the skills to change. The need for **competence** refers to the extent to which an individual feels effective in his or her interactions with the social environment and experiences opportunities to showcase his or her potential (Ryan & Deci, 2002). As competence includes information and skills required to change behaviour, it should be supported and combined with autonomy so that intrinsic motivation is enhanced (Fannery, 2017; Ryan et al., 2008). In this context, support for competence should be provided through feedback on effectiveness (Ryan et al., 2008).

The third key need for intrinsic motivation is the need for meaningful **relationships**, which is defined as the degree to which individuals feel safe belonging and connecting to others in their social environment (Ryan & Deci, 2002). One of the meaningful relationships that develop when changing health behaviours is the therapeutic relationship with health professionals (Fannery, 2017). As individuals, who are in a healthcare setting, often lack technical knowledge and expertise, they seek information and guidance from their contact In this process, a sense of respect, understanding, and caring is essential to form the experiences of connection and trust that promote change (Ryan et al., 2008).



## GOAL SETTING THEORY

The basic principle of goal-setting theory is that the individual needs specific and challenging goals to drive high performance, not just be motivated to do the best they can. The process of goal selection is influenced by two key factors: a) how important the goal is to the individual and b) how confident the individual is that he or she can achieve that goal. Important variables that are also intertwined and mediate between goals and performance are goal selection and acceptance, effort, persistence and strategy for achieving them (Latham & Locke 2007; Locke & Latham, 2006).

Goal setting is a complex cognitive mechanism that is shaped and influenced by many parameters. Thus, in order for the goal-setting process to be most effective, key design parameters are that goals should be realistic yet challenging, enhancing motivation and commitment to them, thus leading the individual to a sense of achievement while encouraging them to set new future goals (Locke & Latham, 2006; Weinberg, 2013).

Feedback, a key element, is essential to monitor progress and evaluate performance against the target, providing information to the individual on progress or not, and if necessary to redefine goals or strategy to achieve it. The element of feedback, particularly when reinforced by self-monitoring, is very important as it makes the goal setting process more effective, thus enhancing the individual's commitment leading to better performance (Lunenburg, 2011).

Satisfaction and performance are closely linked to the point where the individual exceeds his or her goal, as the most direct determinant of performance is the goal, and that satisfaction with an individual's performance is a function of the difference between actual performance and target performance. An individual's satisfaction depends on achieving a difficult goal as more energy is expended than an easy one (Locke & Latham, 2006).

More effective performance occurs when goals are specific and challenging, realistic and measurable, so that the individual is aware of the progress they have made towards achieving them, with the setting of deadlines to improve this process (Locke & Latham, 2006; Lunenburg, 2011; Weinberg, 2013).

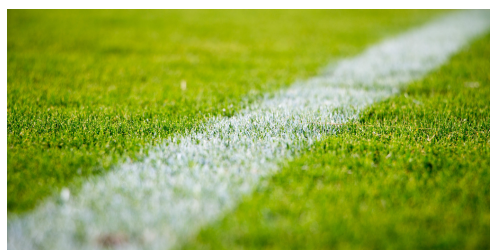
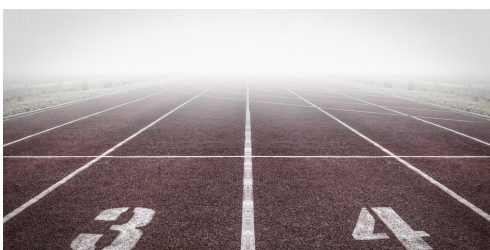
It would be an omission if it were not mentioned that goal-setting theory can also be useful and effective for understanding and managing the psychology of a group. A team is formed to the extent that it agrees on the goals to be achieved and the ways and timing to achieve them. However, the team adds a level of complexity because goal conflicts may arise between team members and also between the team's goal and the individual goals of its members, affecting processes of cooperation and cohesion, thereby limiting team performance (Mierlo & Kleingeld, 2010).

## BEHAVIOUR CHANGE TECHNIQUES

Behaviour change techniques (BCTs) are irreducible components of an intervention aimed at changing behaviour (Abraham and Michie, 2008). The goal of developing behaviour change techniques is to formulate a common vocabulary by which the components of behaviour change interventions can be defined and described so that they can be faithfully replicated, clarifying when and how content matters for the effectiveness of interventions (Abraham & Michie, 2008). The classification of behaviour change techniques lays the foundation for the reliable and systematic description of behaviour change interventions (Michie et al., 2013). This fact significantly increases the ability to identify the active components of the intervention and the conditions under which they are effective, enhancing the replicability of their implementation, thus further advancing the science of behaviour change. Other advantages of the classification are that, it relates to a wide range of behaviours rather than being limited to a single domain, while providing examples and details of how they can be implemented.

The Benefits of the BCT Approach (Michie & Johnston, 2013).

1. **Developing behavior change interventions:** Intervention developers will be able to use a comprehensive list of BCTs (rather than relying on the limited set they are aware of) to design interventions and will be able to report the intervention content in well-defined and detailed ways.
2. **Reporting interventions:** Specifying intervention content by BCT will facilitate the accurate, replicable description of behavior change interventions. Both intervention and control conditions can be specified using BCTs in randomized controlled trials.
3. **Implementing effective interventions in practice:** BCT specification will facilitate faithful implementation of interventions found to be effective.
4. **Replicating interventions and control conditions:** Specifying interventions by BCTs will help the replication of both intervention and control conditions.
5. **Synthesizing evidence:** Systematic reviewers will be able to use a reliable method for extracting information about intervention content, thus identifying and synthesizing discrete, replicable, potentially active ingredients associated with effectiveness.
6. **Linking to theory:** Linking BCTs with theories of behavior change allows reviewers to investigate possible mechanisms of action
7. **Accumulating scientific knowledge about behavior change:** A shared terminology for specifying behavior change interventions allows the more efficient accumulation of knowledge and investigations of generalization across behaviors, populations, and settings.



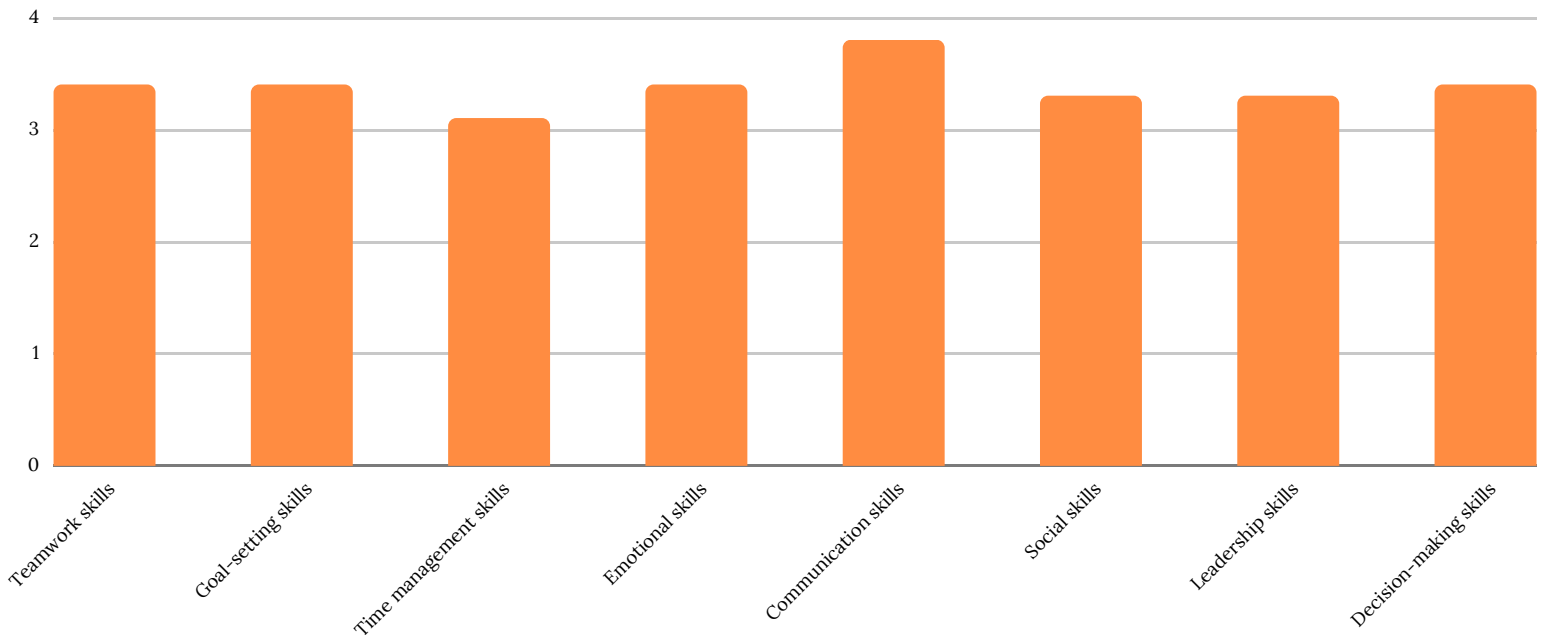
# Reintegration Through Sport Plus research outcomes

## Perceptions of individuals under SUD recovery: Life Skills Development

According to the research conducted in the Reintegration Through Sport Plus project (2021)\*, individuals undergoing SUD recovery (clients) seem to recognise the life skills developed through their sporting experience. The purpose of the study was to capture clients' perceptions regarding the connection between sport and physical exercise (PE) participation and their SUD recovery outcomes.

The study involved 774 clients from a total of 29 organizations, from 9 European countries, completed self-report tools, and also 24 interviews and 6 focus groups (40 participants) were conducted. Data collection took place from September 2020 to May 2021.

### QUANTITATIVE RESEARCH



*The results confirm the relationship between sports participation and positive life skills development of individuals under SUD recovery*

Read the full research report [here](#)



## QUALITATIVE RESEARCH

Themes	Example quotes
Communication skills	<p>"In team sports, you need to communicate, and you learn how to communicate. I focus on that especially when I was playing football..."</p> <p>"...I was the most introverted and I did not have such comfort to communicate with other people, that I did not even know, so even today through the sport I can comfortably talk to a stranger, whom I do not know at all, and we will have a public..."</p> <p>"...the exchange of experiences, views, ideas, experiences, all this develops your skill and not just the sport itself..."</p> <p>"I communicate more easily with people and I know that for what they would judge me was in my mind, that's where you start to trust..."</p>
Time management skills	<p>"Putting in the hours, on and off the pitch. Getting numbers, organizational skills. Stuff like that. Your planning skills..."</p> <p>"I organize my day so that I can dedicate part of it to sport, it helps me to structure my day".</p> <p>"It has helped me to be more organized and disciplined in life. These were two things that I didn't have in my life before and it made me feel uneasy. Having acquired them I realize that I work on my rehabilitation more satisfactorily..."</p> <p>"It helps me to be able to find time to do all the tasks and to know when it is the right time to do them..."</p> <p>"The first is time management ... to discipline ... that today at 7 will go for exercise..."</p>
Emotional skills	<p>"it has thought me to be flexible with myself, which is good, I can be very rigid and hard on myself..."</p> <p>"...sport has provided me with points of view, feelings, sensations, emotions or reflections that I had not identified until I started practicing sport..."</p> <p>"It helps me to be emotionally balanced, if I am more emotionally balanced, I can better grasp the emotions of others..."</p> <p>"When you do sport, especially when it is a team sport, you test your emotions, as they come out when you play. That is when you have a chance to learn how to manage them..."</p> <p>"Sport does not always give you pleasant emotions, you also have defeated, you also have disappointment ... training you to manage better, let's say, a frustration..."</p> <p>"...what I feel plays a very important role for me, and through sports, that is, the feelings I have. I feel good about myself...this relaxation..."</p> <p>"...how to manage my emotions has mainly made me more mature and better recognize positive things... to recognize the positive emotions, and in positive things do, and it helped me a lot in that, the true emotions, which are beautiful, positive..."</p> <p>"To manage the emotions, to express them, to accept them, to accept the emotion of the other..."</p> <p>"...to manage my emotions, whether it is anger or joy or..., and to express them, not just to swallow them..."</p>
Goal-setting skills	<p>"I can plan better. It is like training. You cannot run 10 km immediately, but you start with 500 meters, in some weeks you get to 2 km and slowly you get to 10 km. It is important to look back and see the progress..."</p> <p>"Now I have learned to focus my energy to achieve more affordable minimums and that the reinforcement to overcome them is greater..."</p> <p>"Sport has enabled me to see myself as being able to do the things I set out to do and to achieve my goals..."</p> <p>"Helps you to think that you are capable of exceeding goals. It allows you to reach goals and think about how to reach them. To ask yourself what I have to do and how..."</p> <p>"I think that helped me, that I was very active in sports regarding goals, I finished school, I worked in good hotels..."</p> <p>"...how much I will run, how much rope I will do, if I have a month to prepare to go to the next level ... until I saw what it is like to set a goal, to achieve it, how satisfied you feel, from one goal, the small, let's go to the next one..."</p> <p>"...self-confidence and self-esteem, so I can achieve this and set another goal."</p>
Teamwork skills	<p>"I learned to be a better mate - sometimes I motivate, sometimes I say it is OK."</p> <p>"I suppose building relationships, that's a big one. You can learn so much as part of a group"</p> <p>"Cooperation, tolerance, caring for others, team spirit all that kind of stuff"</p> <p>"I identified my role in the sport group. The sport group awakened me to be an organized person in the group and to propose plans. Being organized, feeling important, and valued raised my self-esteem.</p> <p>"...help me to help my team without asking me for help, sport has taught me that..."</p> <p>"Help another team or team member perform a task..."</p> <p>"...and the cooperation with the team members is somewhat the same with sports if there is no cooperation you cannot achieve your goal..."</p> <p>"How to learn to work within your team, trust the people in your team, open your issues, discuss them, solve them..."</p>
Leadership skills	<p>"Helps you to understand group roles differently than before and to take on a different role in the group and life..."</p> <p>"...sport contains all these elements, how to lead, even in a small group of two or three people, to motivate them, to motivate them to continue..."</p> <p>"...to be a good role model for others, when I was playing football and my little cousin or younger children were coming to see me, to be a role model to continue the sport..."</p> <p>"Examining the individual views of each team or team member helps me to become better, in the first place, it makes me think..."</p> <p>"That you can help or motivate someone to do something good for their health, for themselves and to say what you have gotten out of it, to motivate the other..."</p>
Social skills	<p>"Sport helped me because I know more and more, in society ... in the football, we go to, I talk to people ..."</p> <p>"It is a form of communication with the outside world and with other people, I do not even know..."</p> <p>"...being able to start a conversation, say, and interact with other people...sport helped me a little bit to meet people, to talk, to unlock, being able to talk to people, to start a conversation..."</p> <p>"...I have communicated with people and I felt very happy that they told me their own experiences, from the gym, where they have reached, where they started, other conversations, more real discussions..."</p> <p>"...not to communicate with only one or two people, to have a network of people..."</p>
Problem-solving skills	<p>"It's how you face a problem. It helps you to see it better. To have a better perspective and to see solutions..."</p> <p>"Exercise time allows you to find several options or ways to solve the problem. It helps you to de-emphasize the problem and decrease impulsiveness..."</p> <p>"problem-solving skills .... is very important to me ... I do not know how this is done, I just find, I try to find the solution ..."</p>

## RACE4LIFE research outcomes

Semi-structured interviews were used to collect detailed information about sport and physical exercise experiences of the individuals under SUD recovery. The degree of perception of life skills and how this relates to their sport experience was specifically investigated. The survey was conducted in two consecutive phases. In the first phase, participants participated in semi-structured interviews. At the end of the interview, the interviewees were asked to take 5-8 photos of situations (or places) where they applied the life skills they had learned from engaging in sports. The photographs were then used during the second phase (photo-elicitation interviews). (Appendix 1)

### **Photo-elicitation interviews**

The main purpose of photo-elicitation interviewing is to record how subjects respond to the images, attributing their social and personal meanings and values. The meanings and emotions elicited may differ from or supplement those obtained through verbal inquiry.

However, as many of the interviewees were attending SUD therapy, it was not possible to bring or take photos. They were invited to share a true sport-related story from their own everyday life instead.

### **Interview Key Dimensions**

*Appendix 1: Interview protocol*

#### **LIFE SKILLS**

1. Knowledge about life skills
2. Perception of life skills
3. Application of life skills
4. Sources (environments) of developing life skills

#### **SPORT AS A LEARNING CONTEXT**

5. Sport as a challenge
6. Sport and life skills development
7. Improvements in sport programs

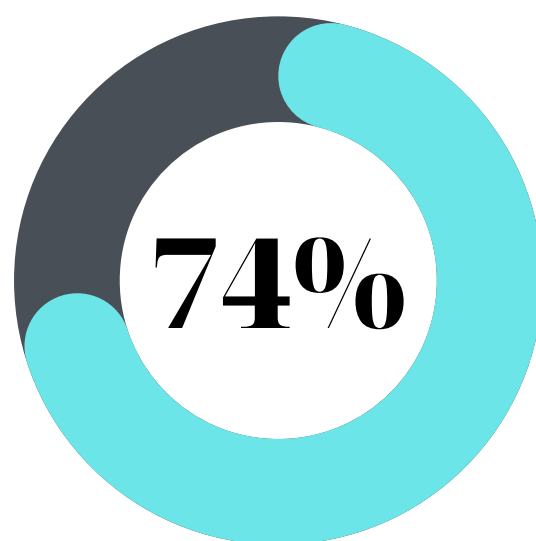
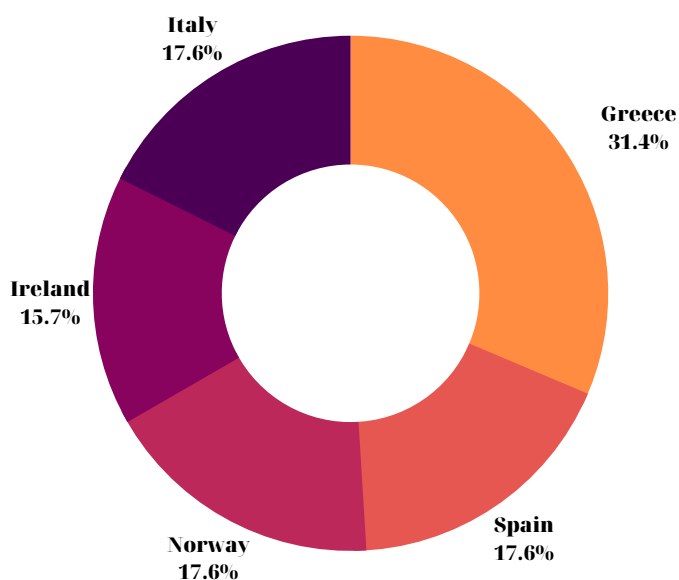
#### **LIFE SKILL TRANSFER**

##### **Photo-elicitation interviews**

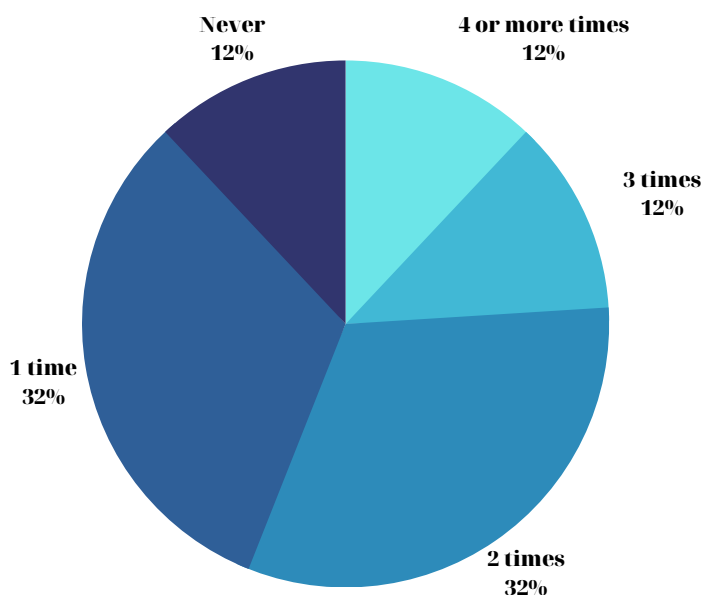


The sample consisted of 50 participants in therapeutic programs, 37 males (74%) and 13 females (26%). The participants' mean age was 40,5 years old, and the average time in drug use was estimated around 16,2 years, while 1.133 days (37.7 months) was the mean number of days in SUD recovery. The majority of the sample had Greek nationality, followed by Norwegians, Italian, Irish, and Spanish

42% of the participants were receiving outpatient treatment and the other 58% residential treatment. 74% of the total sample was under no substitution treatment. 74% of the participants mentioned that suffered from serious drug problems and that undertaking treatment is extremely important for them.



**NO SUBSTITUTION TREATMENT**



## QUALITATIVE RESULTS

### **Theme 1: Knowledge about life skills**

In response to the question: "What do you think life skills are?", the majority of the interviewees struggled to give an answer. They tried to give a definition, but the notion was quite uncertain. However, the majority of them agreed with the concept that life skills can help them to cope with the current difficulties in their lives. Another element argued by the interviewees was that life skills can help them to be flexible and adaptable to different situations in their daily life. Important were the statements made by the interviewees that life skills are essential to know yourself and those around you better.

### **Theme 2: Perception of life skills**

In response to the question: "What particular skills do you think are important to living a healthy and productive life?" the majority of the interviewees agreed that life skills are necessary to live a substance-free life. A common view among interviewees was that life skills can help them to set boundaries in their lives and establish healthy behaviour. Another reported aspect was that life skills can help them to establish and maintain healthy relationships with others, to communicate better with people, and trust them. Important were the statements made by the interviewees that life skills can help them to structure their daily life and their life in general.

### **Theme 3: Application of life skills**

When interviewees were asked: "Can you give specific examples of tasks you have accomplished when you used life skills?" there was a wide consensus among them about using life skills in their daily functions such as making the bed and participating in various activities. Another element argued by the interviewees was that life skills helped them to maintain their physical and mental health. Most of the interviewees perceive that life skills are essential for their social function as they are able to build relationships and understand and empathize with others. Some interviewees argued that life skills help them to better manage their emotions and their behaviour in everyday life. Finally, important were the statements made by the interviewees that life skills helped them to manage, organise and value their time more effectively.

### **Theme 4: Sources (environments) of developing life skills**

When interviewees were asked: "Which environments, in your opinion, can support the development of life skills?" there was a wide consensus among them that sport is, among others, a supportive and favourable environment for the development of life skills



### **Theme 5: Sport as a challenge**

The majority of interviewees stated that sport was a significant part of their life when asked to talk about their experiences from participating in sports. They noted the significant connection between physical and mental health as well as the wide spectrum of advantages of sport and exercise for the body and mind. The majority of respondents concurred that sports and exercise are attractive activities that effectively aid in managing negative thoughts. Exercise, according to a number of respondents, supported them in SUD recovery. The interviewees additionally presented an argument that exercise creates an essential space in daily life and can open up a wide variety of possibilities.

A common view amongst interviewees was that exercise can help people better manage their time and motivate them to support their daily routines. Another reported aspect was that sport is a beneficial activity that can help them love their body and keep it active and in good physical condition. Important were the statements made by the interviewees that exercise can help improve mood and manage anxiety, stress, and tension.

### **Theme 6: Sport and life skills development**

In response to the question: *what life skill(s) did you learn from sport participation?* The majority of interviewees agreed with the statement that sport is a favorable environment for learning and developing life skills. A common view among interviewees was that sport participation helped them to develop their social skills and community-building skills. Another reported aspect was that sport helped them to develop empathy and listening skills. The majority of interviewees agreed with the statement that sport helped them to develop stress management skills and emotional regulation skills. A common view amongst interviewees was that sport helped them to enhance their self-awareness and develop skills for building self-image and body image. Some interviewees argued that sport helped them to develop time management skills. Finally, important were the statements made by the interviewees that sport helped them develop assertion and refusal skills

### **Theme 7: Aspects (of sport training delivery that have influenced life skill development)**

In response to the question: *"are there certain aspects or elements of sport training delivery that have influenced your life skill development?"* the interviewees argued that aspects of sport training delivery that help them to develop life skills, among others, was the structure of the training, the social dimension of sport, the feeling of mastery and well-being, goal setting and goal achievement, discipline, sense of achievement, balance, and sense of control.

Themes	Example quotes
<p>Knowledge about life skills</p>	<p>«The tool you have on how to cope with everyday life and life in general. What have you learned through it? What tools do you have with you? Cognitive-How you cope with things. Knowledge how to master life»            «to have the proper attitude and manners in order to be accepted by the people around me»            «to be flexible and able to adapt to various conditions in everyday life whether this has to do with your mind how agile you are or with your muscular strength»            «Understanding how to help myself through ups and downs»            «Life skills are many skills such as effective communication, active listening, managing emotions, managing frustrations and anger, having a routine, taking care of your health»            «I think that a person has these skills partly innate, because of his/hers character and based on what a person listens about himself, the relationship with his ego...»            «Skills are an answer to a problem or a need, I would call them experiences rather than skills, in the sense that when you do an experience any way you give yourself the resources to face...»            «To know how to say no to drugs and alcohol, and have a normal life in a nutshell...»            «It occurs to me that I have always helped others on a psychological level, so many times I have taken on so much, but I have the competence to be able to listen to others and immediately pick up their problems...»</p>
<p>Perception of life skills</p>	<p>«Routines. having something to go to, taking care of oneself, social network, healthy relationships and physical nurturing»            «You must be able to take the initiative to solve problems within yourself. Good physical health, take the initiative – keep your health in place»            «Communicate with people...mental health is important, the structure of my day is important...»            «The boundaries you set in your life...the behaviors you have, the interaction you have with the other»            «...mental health and ability to see how the other person feels, how he thinks, to be able to understand what is happening at that moment...»            «I feel free mentally and that nobody behind me “pumps up” ...»            «...the first skill is the ability to know yourself, for example, you wake up in the morning, you understand how you woke up, what you have around and how you perceive that...»            «...the skill of the relationships with others, so to try to see the positive sides of things and not to linger on what can create negativity adjustment and communication with people...a positive change is useful...and also learning to trust in people and before, to trust in ourselves...»            «...to be able to know how to listen, know how to listen to others...»            «The best skill is being able to stay in change, things are never the same, and knowing how to adapt is the most important thing ...»            «In my opinion know how to manage the day...structure the day...»</p>
<p>Application of life skills</p>	<p>«Making the beds in the morning, budgeting and shopping for food for kids. When I was using I didn't think about any of this just getting the drug. Didn't care about food or anything»            «For me I have applied life skills by knowing how to be assertive and respect myself, for example eliminating toxic friends and learning to set boundaries»            «I live in a healthier way and have more positive thoughts, better breathing, I feel stronger...»            «Very good relationship with family and friends. I am feeling good inside!!!»            «Go for a run, helps sort out my mind. Be able to reflect on things. Regulate oneself emotionally. Understand what happens to me in those situations»            «Have made friends, started an activity, got a job and a girlfriend»            «Yes, in the relationship with others the observation, to understand, also the times and how to talk, when and how to speak...»            «...to learn to know the problems of other people and to understand that you are not alone and the only one that have problems in life...»            «Time, because more one gives importance to time, really the most important thing is to give importance to time, as we spend our time...»            «...just with my skills, that is to know how to catch people and the way to talk to them...»</p>
<p>Sources (environments) of developing life skills</p>	<p>«Self-help groups, walks, and football»            «All environments can be important if you know what you want/should do with them»            «In the therapeutic community, there is a lot that happens, first of all, it is the working groups, you work with people and understand things about yourself...»            «The environments that help me the most to develop skills are therapy groups, playing sports or theatre groups»            «The therapeutic community is such a place, if you follow the program and integrate the sports in combination with your therapy treatment along with 10 other people only happiness can give you... to bring you close to people»            «I feel well with my basket coach, sometimes we go to eat a pizza [...]This friend helps me to feel well, he give me to do some work...»            «...in individual sports, apparently solitary, like running or swimming that is not solitary but apparently they are, you can learn to listen to yourself, listen to your body, that is very important and learn to manage yourself ...»            «...you can learn these skills everywhere: at home, at work...»            «There are many environments, sport is certainly one of the most suitable environments...»            «...I learn from people and then other environments, I do not know... the gym, the music...»</p>



Themes	Example quotes
Sport as a challenge	<p>«It has become a way of life and a strong habit. Mental release. Will be satisfied in training. Makes me feel good»</p> <p>«Probably learned as much about myself through participating in sports as I learned in drug treatment»</p> <p>«I went to a rehab center where we did sport every day for 45 minutes, in that place I lost the shame to show myself and do something. I really saw the benefits, then it all connects to nutrition. I think I need the sport; it takes the stress away and fills my day»</p> <p>«Right now exercise makes me feel very good»</p> <p>«Physical activity is extremely important to me in order to function in everyday life!»</p> <p>«It gave an energy that I would be another time there...It gives me a good mood, and it is also a mental activity, to maintain positive energy. If you see that you did a lot of things, you don't give up. And you have another energy for life, it is a self-care...»</p> <p>«...you don't play to win, you play to participate and it is also a way to vent because when you take a substitution therapy, your body is very "rusty" and you don't have the desire to play...»</p> <p>«...I think that can push people to distract the mind, even only from the thought of drugs, and to concentrate on sport...»</p> <p>«Football was different, instead, there I got angry several times, and the thing hurt me very much, for what I say anger, I tried to eliminate it when I was there, but then I realized that you cannot eliminate it, you have to manage it...»</p> <p>«Surely from the sporting experience I have drawn to feel more satisfied because, when you do a sport, you are in shape, your energies are channeled towards a positive thing...you are better physically, better psychologically...we take back our well-being...»</p> <p>«...it is not my sport, but I know that the movement makes me feel good, so I do it...»</p> <p>«...I like football, you get so tired that you don't even think about abuse...»</p> <p>«...the places where I felt good were work and when I trained...»</p> <p>«The sport can alleviate the tension, the anxiety, because, also playing soccer, running, ensure that the stress that you have inside, that a lot of time you cannot open yourself as you would do, you are like a full vase, ready to explode, instead of exploding, the sport can be useful to alleviate the tension...»</p> <p>«...for me, it is crucial because sport saved my life I did too many years of abuse, I believe that only through sport I can be here to talk...»</p>
Sport and life skills development	<p>«More non-judgmental. More patient. Clears the head. Preparing for the day ahead»</p> <p>«The boundaries... we must have them everywhere. And in general, people we were in drug use, we had none. SUD treatment without boundaries is not possible... and sport is a key part that teaches you to set them...»</p> <p>«I am currently practicing sports in groups, therefore, being with people always helps to develop social skills, also to make an effort and to improve yourself...»</p> <p>«Other skills that I have developed through sport are active listening, now I listen to more and punctuality...»</p> <p>«Looking back I had such a lack of awareness and lack of emotional management. I am now responding to my life in my way with awareness. I can see consequences but I view them as a good or learning experience...»</p> <p>«... its teaching me the value of losing and how to manage it. My top 10 memories of sport are where I had 7 failures and 3 wins, I think leadership comes from sport»</p> <p>«...taught me not to think anymore to the drugs, to feel well mentally, to stay in the company of other guys...»</p> <p>«...to open me to the world and also that it was useful for me through the years for my work and for other things...if in a day I don't do sport I have a bad mood...to be also a model because I'm one of the elders and they come to me to say: you have a lot of perseverance! and this gives strength also to others...»</p> <p>«...I learned that it is important to participate not to win...»</p> <p>«...team sports teach you to be among people, you are obliged, so you are obliged to relate to others, so you learn things...»</p> <p>«...humble is the skill, humility is a skill I think, so football humbled me after going to jail, football humbled me and I think I don't know, I think I'm well...»</p> <p>«...breathing, having control of your body helps a lot, it is a skill, in my opinion when you are well physically you can achieve the goals of your life...when you play sports, you create relationships, doing something that you like, with people who have similar attitudes to yours, therefore you also create a network of friends...»</p> <p>«...Yes, I've learned the approach to people...»</p> <p>«...it has strengthened my character a bit anyway...the fact of being able to help people more..., I feel better about myself...»</p> <p>«...The sport gives you in front of things that in the future you have to face, the sport lets you get out from the comfort shell...»</p>
Aspects (of sport training delivery that have influenced life skill development)	<p>« To set a goal and complete it at the same time, to fight for that goal and achieve it... the point is not to deviate, not to give up and continue...to reach the finish line»</p> <p>«This mechanism you use it forever...to improve your attitude, your behavior, to put yourself in others position... »</p> <p>«...I am more aware of how I feel now, I know how good I feel after sports. This means I am more aware now about what makes me feel good or bad...»</p> <p>«Coping with more than I think I do. Defy feelings or thoughts, and become friends with the pain»</p> <p>«The feeling of mastery and well-being. If you implement it, you are left with a result that feels good»</p> <p>«Teaches me to take it easy. I always get ahead of myself when I have to do something because I'm so short on time...»</p> <p>«...Structure. When I leave here I know it will be hard to keep motivated and a structure but I can now see the benefit of sport participation. I can see the effect it has on my mental health".</p> <p>«...The social aspect and belonging. Ready to stand up for things and training is very measurable...»</p> <p>«...In training, it has helped me to know my body and to take care of my teammates and help them".</p> <p>«...Thanks to sports I know my body, I know healthy people who have a healthy lifestyle, this aspect is very important, to be able to know a healthy environment...»</p> <p>«...In gender violence, it has helped me not to be afraid...»</p> <p>«...the discipline... to achieve a goal...»</p> <p>«...stay well with the others, in the company, and not think of the bad things.</p> <p>«...when I have the moments that I abandon [sport], a day yet, from here you start to abandon also other things, to take care, to give attention, they are alarm bells</p> <p>«...to maintain a balance, a control also, to leave the tension at a right level</p> <p>to feed me in the right way [...]do the exercises in the right way</p> <p>«...All the times I have detoxified I used sport as a vehicle, a tool, to speed up recovery because even if you feel bad, you may hurt your legs or go dancing, expel toxins, get tired, think less and recover faster</p> <p>«...I think so, once I have achieved my goals I hope to be able to go back to playing football or boxing, one of the two, I also hope to get back to achieving the goals at the sporting level</p>



*"Gives a calming feeling and a feel of serenity. I need nature and hiking in my life."*

**Emotional regulation**



*"I can do more than I think. Being with my family outside gives me a good feeling. Appreciate what I have in my surroundings."*

**Self-esteem**



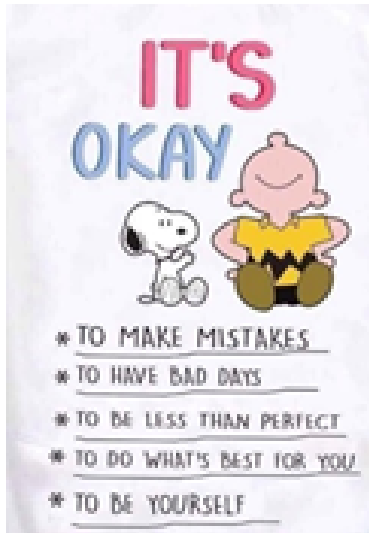
*"Physical exercise and relaxation at the same time."  
"Thoughts of gratitude-happy to be drug free."  
"A place where I am "just me" not a former addict"*

**Stress management**

**Self-awareness**



# PHOTO-ELICITATION INTERVIEWS



*“Give a damn and think of yourself first.”*

*“Understanding who I am and finding peace. Good relations.”*

**Self-assessment skills**

**Emotional regulation**



*“Coping: Through relationships with other people to interact with others. Helps to get to know myself better. Which strengthens self-esteem and self-confidence.”*

*“I need to go outside when life is painful, so that I can regulate, and convey feelings through images.”*

*“In creativity I find peace & choose to see life from a different angle.”*

**Self-awareness**

**Creativity**

**Relationship & community building skills**



*«Last Saturday we did the sport2live race and there were about 25 of us. That day when I got up and left the house it was raining a lot. It would have been very easy to say that since it was raining, I stayed home, but I had the strength to leave the house and go, what surprised me the most was that all my training partners who had signed up for the race also went. Because in the end, these activities make it worthwhile to do them. For me, the race was happiness, commitment, and overcoming obstacles like the weather»*

**Identifying personal strengths**

**Positive thinking**

**Coping with pressure**

# PHOTO-ELICITATION INTERVIEWS



*“Once the race is over, you realize how important it is to do this type of activity, because you feel very good, it is very rewarding and also, you share it with your training friends and you realize that it is also important for them”.*

**community building skills**  
**positive thinking**



*“When I was 8 years old, I practiced fencing, and this made me happy. I wanted to learn, in fencing you must learn by doing competitions, you can do a lot of theory, but if you don’t practice you don’t improve, we used to meet in the courtyards to practice. And this desire to improve made me have constancy and commitment to this activity. Fencing made me realize that I can do more things and taught me to do and enjoy sports”.*

**Self-esteem**

*The fact of being able to climb gave me a lot of happiness that day, satisfaction of reaching the challenge and personal reward, when you are at the top of the mountain, and you have reached the challenge you realize that it is worth all the effort to hike.*



*The transfer that I make of this situation is to take advantage of the time, when I used to consume, I did not take advantage of the time, I was always on automatic, I was in a tunnel and I only worked or consumed, I could do other things, but I ended up not doing them and now I can change that.*

**Time management skills**

## PHOTO-ELICITATION INTERVIEWS



*It was helpful to teach me to be around people, and to have fun, it makes me think of many things that make me feel good, I was on a plane with the guys.*

*I remember the arena and the people who were around me, people taught me to stand among others, say some jokes, and spend the day. A relationship of friendship through people. Instead of thinking about drugs, I think about this experience.*

**friendship formation**

**interpersonal relationship**



*"Soccer represents that to be in between other people, having fun, spending a day with other teams, representing to feel good, not thinking about substances, thinking about playing, and having fun, among others. When I do sports, I have my mind only on sports, not on substances. It has served me for the behavior among others, working, playing and being among others, having fun, and not thinking about substances.*

**interpersonal relationship**

**self-control**

**coping with pressure**



*Running is a sport of effort, but it makes you feel good because you are among people, chatting, saying jokes, to spend a morning in the company of other people. Having fun, racing also to win, but I have never won in my life, but I see that Kenyans here are as strong as Ferrari cars.*

*I participated in the marathon in Reggio, which taught me to be among people to talk to people, have fun, and spend the morning of sports and does not think of substances*

**coping with pressure**

**interpersonal relationship**

**self-control**

# PHOTO-ELICITATION INTERVIEWS



*The road and the shoes are that basketball but it is a coincidence, I wanted to explain that sport, gives you, increases the ability to make a goal, achieve a goal, make a path, follow a path of life, have dreams to engage and also give yourself rules to get to a final goal that you have set, It can be the victory, but that is also the last resort because then you have to see how much you have of competition, but to commit, to find ways to walk the way*

**goal setting**



*Here I represented the running shoes, okay, nature, and the means I had to indicate a little spirituality, so I put an incense because I had nothing else, it's a speech that when I do sports, I have a strong connection with the inside, with myself...at a spiritual level but also the mind that is free, because if you are nervous, and do sports, for the energies is relaxing, a nice vent, so you will help at a spiritual level to find the right balance body-mind*

**self-awareness**

**emotional regulation**



*is the relationship with nature, nature-sport for me is very connected and sometimes we make it obvious, that is not so obvious, sometimes we pass in front of so many natural things, that grow naturally, or that happen naturally and we do not pay attention, but if we dwell are the wonders, they are those little things that make the great*

**relationship with the nature**

**self-awareness**

**positive thinking**

# PHOTO-ELICITATION INTERVIEWS



*to indicate that sport is very important in relation to food, and, sometimes, just for people who have a bad relationship with food, the fact of doing sports, makes them accept it more, that is, it can also be for people who have problems eating bulimia, food see him under another guise, which gives an energetic action, which makes him more active, can cure the body but not for this fattening, It goes to play a lot on a psychological level this and sport can enter there, where, maybe we alone cannot*

**self-esteem**

**skills for building self-image and body image**



*sharing, the sharing that sport teaches you to do with other human beings, even if we are totally different, so accept, share, be able to agree, to collaborate in our diversity of character, in this case of character or physical, or in any case of performance or anything, that can trigger and also be born other types of feelings, such as friendship or love, help each other, help each other in groups for a common purpose*

**accept the differences**

**interpersonal relationship**

**friendship formation**



*Football in the first part of my life has been fundamental because I have always played with older people since I was a child and I learned many things, this was a fortune because playing with older people I learned a lot from these people, to relate first of all, I tried to imitate them,*

**interpersonal relationship**

**listening/learning skills**

# PHOTO-ELICITATION INTERVIEWS



*...they say that when you do these things the brain is very active, rightly balanced, technique, these things here and I took the picture where I was falling, I wanted to make this and not those where in sport, as in life, you fall, mistakes and falls sometimes, even doing you a lot of harm, in life all fall, maybe in life you have to fall, because you learn things, maybe you learn more when you fall that when one is always standing, the difference makes, if you get up and how you get up, so sport also teaches you that..*

**executive function skills**

**resilience**

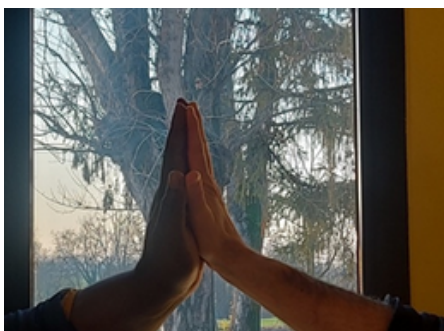


*I made this one together ...and me, he's a black guy, this is very simple, it means that in sports you get it's nice to meet people different from us, he's a guy from Nigeria, so he has another culture and team sport in this case, so sport has taught me to be more tolerant of other cultures, has made me understand that there are differences between people and you have to try to accept the differences...*

**to accept differences**

**interpersonal relationship**

**relationship & community building skills**



*I believe through sports we can fight racism, coming together of different people, around the world: black, white, red, Indians, different types, Muslim, Christians, coming together as one, so that is what I think about picture, It symbolizes pictures of hope for the future.*

**accept differences**

**interpersonal relationship**

# PHOTO-ELICITATION INTERVIEWS



*I wanted to highlight here the relationship that one has with your teacher, which is not like the team sports where the teacher is the coach, but anyway, he has to deal with many different people, so, here is different because here you are and your coach, this one makes me think that having teachers in your life who can teach you, spiritual teachers also, is a relationship that I also teach you to live, to be balanced, to eat well, this I like the fact that there is a teacher who focuses only on you and therefore one grows a lot also from the spiritual and life point of view*

**learning skills**

**listening skills**



*Basketball is a sport where you have to calculate, you have to calculate your opponents and the next man, so I think the same skill touch human life, without skills, you can't live your life.*

*If you have a skill to strategize, not only in basketball, but through basketball, you can have the skills to calculate, and when I'll leave TC it is going to help me.*

**problem solving**



*In this vertical I did, a bit to show off (laughs), I was three seconds, she was good to take me, I was struggling, then here if you fall you also hurt, I haven't done it for a while, this is the balance that can give you the sport, the balance is needed in any sport, a little 'balance it takes because, clearly because, a ball, for example, they say to do the abdominals because you have more balance when you pull on goal, so they are all things that one learns doing sports, learn to be balanced and therefore balanced even in life*

**balance**

# PHOTO-ELICITATION INTERVIEWS



*It's me with the skills of trying to do basketball, trying to do anything at all for me it is a skill, not bad things, good things, trying to do good things for me is a skill, to help understanding yourself, your future and your biography and this is what I think, I can learn to do, I'm a fast learner, these skills will be useful also when I'll go out of the TC.*

**trying new activities**

**learning skills**



*I have the world in my hand, this is not the basketball, this I the world, I have the world in my hands, I think I can do anything I wish to do, I can live my life the way I want to live my life, I can do anything, I can be anything I want to be, I'm smiling, my smile symbolize that you can't do anything to me, that I have not done to myself, because I'm used to use drugs, I used drugs for quite sometimes, I tried to destroy my life, but through the TC I combat on track, I combat to life*

**positive thinking**

**resilience**



*I played football, so the ball, the field, all these things, since childhood, the endless games at the oratory, and saving on the line is something that I carry behind because I have always been on the line in life, that is I have had moments when I really had to save myself on the line.*

*Playing football is a beautiful thing because challenging another team, challenging themselves, is a beautiful thing, dribbling, running, jump, is a sport that makes you manifest your presence, from the physical point of view, gives you satisfaction.*

**self-esteem**

**decision making**





*That if one is committed and is constant you can win the game: commitment, constancy, love, passion for things lead to strong results, this can be applied in everything you're doing in reality*

**commitment**



*...this is what it represents, going to play sports, preparing the bag is a thing of concentration, that you have to put the things you need to face that challenge, so competence is also the attention to have the necessary, to face that challenge, because the details are also important, in the bag, maybe if you don't put the right socks, maybe your feet hurt, after you cannot play to the maximum, because maybe you do not have the right socks, or use a cream to warm your muscles, if you forget, you cannot warm up well, so attention to detail, preparing for a challenge.*

**concentration  
attention**



*Here I'm doing the push-ups, and it's a normal gym technique, to train the triceps and the pecs, I did five because here I got fat and I'm not as light as I used to be, before I did 20 and 20 and 20. This training can be used for stamina, resistance even in here, I'm resisting in here, I can't stand in here anymore, I'm resisting... I need a lot to know how to resist also outside, not only inside, to resist outside in my case, means to be able to resist the temptations, of drinking, of taking drugs, temptations to smoke even just a joint, I don't want to smoke not even the joints...*

**resistance skills  
peer resistance**

# PHOTO-ELICITATION INTERVIEWS



*With sport, especially weightlifting, I adjust my diet a lot, so I try to keep a certain weight range and I adjust in the diet, I wanted to represent it like this, with me weighing in the balance of proper nutrition, which gives me this competence thanks to sport, to feed me well, to eat well*

**skills for building self-image and body image**

**resistance**

**self-control**



*This represents how sport has given me a certain discipline, a certain rigor, to take care of my spaces and anyway, it gives me mental strength, the fact of doing gym, sports activity, gives me the strength to take care of my personal spaces, or waking up early in the morning, making my bed alone, thanks to sport I can have this mental strength, both mental and physical.*

**discipline**

**time and spaces management skills**



*...she is injured,...in this photo I wanted to represent how physically, through sport, I can help a person who is momentarily unlucky, I brought this box over the pantry, I could help thanks to the strength that sport gave me, surely it gives me a hand to give a help also to less fortunate people or momentarily injured, when I didn't practice sport I couldn't even wing a box, Instead of getting a thank you for helping me put on a box and put it over the pantry, it's sports. Being physically well you can help out with evreything, you can give an extra hand to others, it is just a physical well-being*

**helping the others skills**

**self-efficacy**

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### Going to the swimming pool of Can Caralleu (municipal gym next to the mountain) twice a week.

*“Swimming above all helps me to concentrate and the silence of the pool relaxes me. Introducing the pool workouts in my life, apart from enjoying them, has made me see that I can do more things, I thought I could only do the gym, but I realized that I can do more things”.*

**Self-esteem**

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### Starting to do the workouts in the pool

*“Twice a week, although I am still in the rehab centre, I go to train alone to a municipal swimming pool in Barcelona. For me it is a way to recover from the consumption, to feel that I am a sufficient, useful person and that I can fulfil an activity and be responsible for my own life. These are small challenges that I can start doing and that benefit both my health and my personal growth”.*

**Self-esteem**  
**Positive thinking**

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### The first race that I finished TransplantRun

*“I felt it was something new, because I had not done a race before, everything new and all these experiences shared with my training friends. The feeling of overcoming myself, of not leaving it halfway, of not giving up. There was a moment when I was very tired, but when the trainer came to encourage us, I cheered up, although I was very tired, I achieved the goal, reaching the finish line, I felt happy, very satisfied, and eager to repeat”.*

**Self-esteem**

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### Ping-Pong training sessions

*“The ping-pong workouts give me balance, stability, disconnection, it's a way of being well and being able to develop social skills”.*

*“It allows me to connect with charming, healthy people and have fun. For me to manage leisure time and to have situation to be with people is hard, sport helps you to have these situations”.*

*“When you play ping-pong, sometimes you win and sometimes you lose, but the most important thing is that it is a way to enjoy, and it is a moment that I disconnect from everything”.*

**interpersonal relationship**  
**Friendship formation**

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## Basketball training and games

*“Doing these activities allows me to have one of my goals that is to feel me that I have a full life, which is to have a social life. I am achieving it, and all this makes me feel very good”.*

*“On the other hand, it also allows me to have responsibility with the rest of the team and to want to do things well, it makes me feel good, it is a responsibility that can be achieved and this makes my self-esteem develop”.*

**Friendship formation  
responsibility**

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## First yoga class I was able to complete

*“After several attempts, I was able to complete a yoga class, there I learned to control anxiety and mindfulness taught me to be assertive, in life you can transfer this to prepare and relax for a job interview, to take an exam, for any situation you need to relax. Overcoming this situation, because of my disorders, it helps me a lot to relax, it helped my self-esteem because I was able to achieve things that I thought I could not achieve”.*

**emotional regulation  
stress management  
self-esteem**

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## Running a 10k race and crossing the finishing line

*This was such a huge achievement for me. I never did any running and to take part and complete 10 km in a race.*

**self-esteem  
identifying personal strengths**

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## IN CONCLUSION...

It is generally accepted that SUD therapy is a process of behavioural change, through which individuals are supported to cope with their addiction, and restore their physical and psychological health and well-being, aiming to regain their social functioning. As already mentioned, SUDs are classified as chronic conditions that often involve occasional relapses. Consequently, treatment should be an ongoing process, involving a variety of complementary behaviour change interventions. An important factor that is a prerequisite for successful addictive behaviour change, acting as a 'mediator' of treatment outcomes, is the formation and reinforcement of the motivation that will drive the addicted person to change. Motivation leads individuals to resolve their ambivalence about making lifestyle changes, increasing the likelihood that they will commit to implementing a specific behaviour change plan

Therefore, SUD therapy and changing addictive behaviour should be a long-term process involving multiple interventions as well as regular monitoring.

The scientific literature and the outcomes of our studies lead us to the general conclusion that targeted change interventions, implemented in an exercise and sport environment, can be applied in the SUD therapy with positive results.

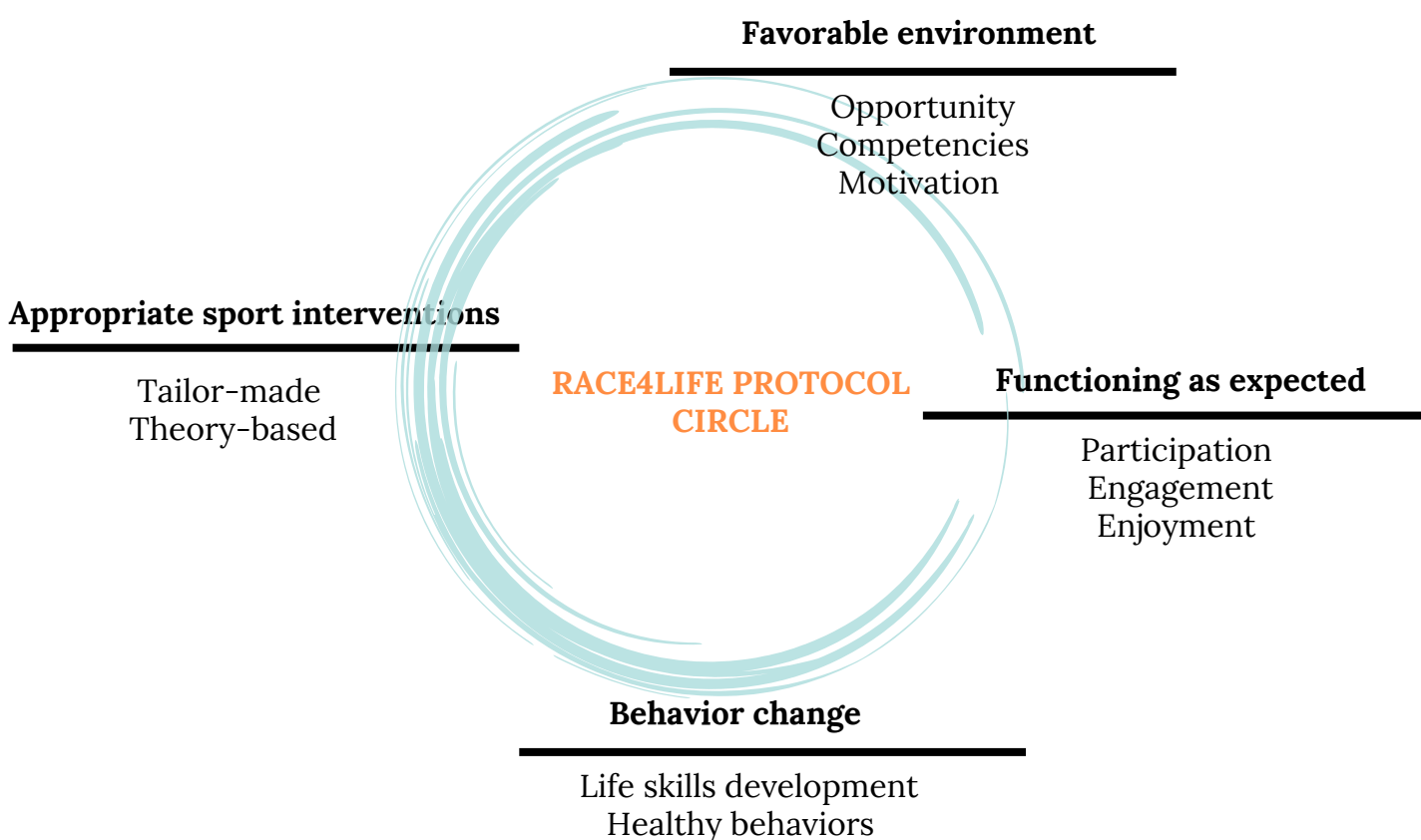
Specifically, it is concluded that exercise can be a favourable environment in which targeted interventions can be implemented to train people under treatment in the development of life skills and behaviour change strategies, aiming at changes in other areas of their lives. Thus, exercise programs should create the conditions and provide opportunities for participation while enhancing the competencies of individuals living with SUD. In this context, the RACE4LIFE protocol can be a suggested framework for implementing exercise interventions aimed at changing behaviour by enhancing the motivation of people in SUD treatment.

The RACE4LIFE protocol focuses on improving the quality of exercise and sport programmes in SUD treatment by continuously improving the existing framework. The goal of the protocol is to promote both sports engagement in SUD treatment and lifelong engagement in exercise that enhances mental and physical health, as well as training in behavior change strategies and motivational enhancement.

Thus, the protocol aims to support sport coaches to improve the quality of the delivery of exercise and sport programmes in SUD treatment. Well-designed and tailor-made sports programmes should be appropriate, taking into account the physical, cognitive, emotional, and moral aspects of the participants. As a result of implementing appropriate sport programs in the SUD treatment process, it is anticipated that they will enhance the role of exercise and sport as complementary therapeutic tools for behavioural change for individuals living with SUD.



However, when seeking to change behaviours, it is important to use theories or a model as a guide. The reason for this is that theories are based, on evidence and data. This reflects and enhances the ability to develop interventions properly in a way that gives greater confidence in the chances of having a successful impact.



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## APPENDIXES

### Appendix 1: Interview protocol

#### Invitation Letter

Dear.....

Thank you for agreeing to take part in the interviews as part of the RACE4LIFE project.

We are interested in hearing about your sport and physical exercise experiences to help us to identify ways to improve SUD treatment services. This is an important project which aims to highlight and support the relationship between sports participation and positive life skill development of individuals recovering from SUD, supporting their social reintegration as well as aiming to improve the efficiency of treatment services. You are one of a group of people we would like to talk to, and the information you share with us will help us improve the sport experience for people like you in the future.

We are interested in your experience before, and during, your SUD treatment. Any information you provide will be kept confidential. The interview will be held on the [date] at [insert location and address] between [insert time and duration].

We value the feedback and appreciate you sharing your sport experience so that we can improve the delivery of SUD services in the future.

Yours sincerely,

[Name]

[Position]

[Organization name]

[Email & Contact number]



## Demographic questionnaire

<b>Therapeutic Organization:</b>					
<b>Nationality:</b>					
<b>Age:</b>					
<b>Gender</b>	Male	Female	Other		
<b>Years in drug abuse</b>					
<b>Days in SUD recovery</b>					
<b>Service Setting</b>	Outpatient treatment	Residential treatment	Other		
<b>Therapy Approach</b>	No Substitution	Substitution	12-Step Therapy	Other	
<b>Educational background</b>					
Primary education	Secondary education		Postsecondary (non-tertiary education)		
Bachelor	Master		Doctoral		
Other					
1	<b>How many times until now have you been in a drug treatment program?</b>				
	Never	1 time	2 times	3 times	4 or more times
2	<b>How seriously do you think your drug problems are?</b>				
	Slightly	Moderately	Considerably	Extremely	Not at all
3	<b>How important is it for you to get drug treatment now?</b>				
	Slightly	Moderately	Considerably	Extremely	Not at all

## Participant consent form

### Informed Consent

This Informed Consent Form is for men and women invited to participate in research on promoting sports as part of the SUD recovery. The title of our research project is: "RACE4LIFE/ Erasmus+ sport program

In this framework, we are conducting interviews to identify your perceptions, preferences, and expectations regarding sports and physical activity during the SUD recovery. Before you decide, whether you will participate in the interview, you can ask me if is something that you do not understand.

The information that we collect from this interview will be kept confidential. Information about you that will be collected during the interviews will be put away and, other than the researchers, no one will be able to see it. Instead of your name, any information about you will have a number designated to it. Only the researchers will know what your number is whereas we will lock that information up with a lock and key. Should the data be published, no individual information will be disclosed.

### Statement of Consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions that I have asked, have been answered to my satisfaction.

I understand I can withdraw my comments at any time and do not have to give any reason for withdrawing. I understand that my personal information will remain confidential. I give my permission for the interview/ discussion to be audio-recorded and to voluntarily participate as an interviewee in this research.

Date:

Name:

Signature:



## Semi-Structured Interview protocol

### Initial interview

#### Opening the interview

Explain that we all have unique skills that allow us to deal effectively with the demands and challenges of everyday life. These skills help people retain mental health and express it via adaptive and positive behavior when dealing with others, their culture, and their environment. These skills are critical in promoting health in its widest sense, including physical, mental, and social well-being. Skills like effective communication, problem-solving, or time management, for example.

#### What do you think life skills are?

Prompts:

- *What are some of your thoughts about them?*
- *Have you heard of the concept previously?*
- *Are you familiar with the term life skills?*
- *What do you think when you mention "life skills"?*

After the interviewees have stated their definitions, present the WHO definition.

*WHO defines Life skills as abilities for adaptive and positive behavior, that enable individuals to deal effectively with the demands and challenges of everyday life.*

*"Adaptive" describes individuals who are flexible in their approach and can thus adjust to changing conditions. "Positive behavior" indicates that an individual is forward-thinking and capable of finding a ray of hope and solutions even in difficult situations.*

#### 2. What particular skills do you think are important to living a healthy and productive life?

Prompts:

- *What are the most important life skills in your perspective, and why?*
- *Why Do Life Skills Matter?*
- *What is the necessity of life skill development?*

#### 3. Are there any areas of life skills that you would like to emphasize more and why?

#### 4. Can you give specific examples of tasks you have accomplished when you used life skills?

#### 5. Which environments, in your opinion, can support the development of life skills?



## **6. Tell me about the experience of your sport participation**

Prompts:

- Do you think you need to participate in sport?
- Why or why not?

## **7. What life skill(s) did you develop from sport participation?**

## **8. What areas of life skills have you improved on the most?**

Prompts:

- How do you use these life skills?

## **9. Do you feel sport is helping to prepare you for life beyond SUD recovery?**

Prompts:

- If yes, why?
- If no, why

## **10. Are there certain aspects or elements of sport training delivery that have influenced your life skill development?**

Prompts:

- If so, what aspects or elements?

*At the end of the initial interview, the interviewees will be asked to take 5-8 photos of situations (or places) where they applied the life skills learned from engaging in sports. The photographs then were used during the second interview.*

### **Secondary interview**

*Photo-elicitation interviews*

The main purpose of photo-elicitation interviewing is to record how interviewees respond to the images, attributing their social and personal meanings and values. The meanings and emotions elicited may differ from or supplement those obtained through verbal inquiry.

In this context, the interviewees should be facilitated to describe how the content of the photograph is related to life skills that they developed through their involvement with sport and exercise.

## **11. What life skill(s) are you displaying in the photograph?**

Prompts:

- Describe how you use life skills in the photograph.
- What do these life skills mean to you?

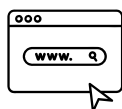
## Note Taking and analysis template

Replicate the same table for each dimension separately

Dimension No.....	
<b>Brief Summary of the process (e.g Silences, conversation flow, withdraws, emotions, etc.)</b>	
<b>Memorable &amp; important Quotes</b>	
<b>Observations</b>	



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[www.facebook.com/ketheasport/](https://www.facebook.com/ketheasport/)

The RACE4LIFE project is of a duration of three years (2022 – 2025).

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