








Research note of the social support, resilience and subjective well-being in Portuguese athletes with disabilities

Tânia Mira^{1,2,3} , Aldo Costa^{1,3} , Miguel Jacinto^{3,4} , Diogo Monteiro^{3,4} ,
Rui Matos^{3,4} , Susana Diz^{1,3} , Raúl Antunes^{3,4*} 

ABSTRACT

This review aims to summarise the studies' insightful exploration of the relationship between adapted sport, social support, resilience, and well-being among Portuguese athletes with disabilities. The research emphasises the crucial role of social support in access to sport, but interestingly, it may not always be directly correlated with resilience or subjective well-being. Athletes with disabilities show high resilience and positive affect while scoring lower regarding negative affect. Technical support is vital for federated athletes with disabilities, and friendships are universally significant. Resilience emerges as a central factor, with strong associations with subjective well-being, indicating its importance in the sporting context. In addition, resilience appears to buffer negative emotions, emphasising its crucial role. In conclusion, these results challenge existing assumptions and emphasise the multifaceted nature of the relationship between social support, resilience and well-being among athletes with disabilities. This knowledge has practical implications for stakeholders, including parents, coaches, therapists, psychologists, and society. They underline the importance of fostering inclusive sports programmes and promoting awareness and partnerships to improve the well-being, resilience and social support of individuals with disabilities, ultimately contributing to their personal development, quality of life and social integration. Policymakers and organisations should consider these conclusions when formulating education and sports policies.

KEYWORDS: disability; sport; social support; resilience; affect.

BRIEF REVIEW

The study of people with disabilities and their needs, abilities, difficulties and limitations implies a change of attitude towards the difference, accepting the individuality of each person. Researchers in the social and health sciences have studied the condition of disability from a social perspective. The condition of the disabled person cannot be analysed only from a medical point of view, as the social point of view is essential in determining their capacity. People are disabled by the conditions of society and not by their bodies (Bampi et al., 2010). United Nations Children's Fund (UNICEF, 2017) adds: "Disability is caused by the way society is organised and not by a person's impairment".

One of the problems for people with disabilities is that they are not encouraged to live active lives from an early age and eventually lead sedentary lives with greater health problems and barriers to physical activity (Shapiro & Martin, 2014). This fact increases the risk of developing secondary conditions related to the primary disability, such as social isolation, obesity, and fatigue, among others (Laskowski, 2012). A healthy lifestyle is as important for health promotion, well-being and disease prevention for people without disabilities as it is for people with disabilities. Several authors highlight the importance of physical activity for people with disabilities (Medola et al., 2011; Slater & Meade, 2004).

Sports have been approached as an influential resource in developing young people in extremely important areas

¹Universidade da Beira Interior, Department of Sport Sciences – Covilhã, Portugal.

²Instituto Superior de Lisboa e Vale do Tejo – Lisboa, Portugal.

³Research Centre in Sport Sciences, Health Sciences and Human Development (CIDESD) – Vila Real, Portugal.

⁴Escola Superior de Educação e Ciências Sociais – Polytechnic of Leiria – Leiria, Portugal.

*Corresponding author: Rua Doutor João Soares, Apartado 4045 – CP: 2411-901 – Leiria, Portugal. E-mail: raul.antunes@ipleiria.pt

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such as self-awareness, human relationships and critical life skills (Conroy & Coatsworth, 2004). In this way, sport is recognised as an essential discipline in education (MacNamara & Collins, 2013), either because of the representativeness of ethical codes, rules and behaviours that are universally structured or because of the added value of the physical and psychological condition that physical activity provides.

Adapted sport corresponds to modified sport or sport created to meet the needs of people with disabilities (Winnick & Porretta, 2017). The word “adapt” refers to people with disabilities who are intended to adapt or adjust by providing modifications to meet the needs of these people (Winnick & Porretta, 2017). Adapted sports programmes are presented and developed in a variety of contexts. From therapeutic, school, recreational and leisure, physical activity and competitive sports programmes (Winnick & Porretta, 2017). Participation in adapted sports promotes the exchange of experiences and allows disabled people, who would otherwise have more difficulties, to travel, visit other countries and meet people with similar characteristics and different coping methods. Participation in physical activity and sports has a high potential to facilitate the inclusion of people with disabilities in the community (Laskowski, 2012). Athletic achievement increases confidence in physical ability, which is then transferred to life outside of sport. In fact, people with disabilities who try to lead an active lifestyle are more accepting of their disability than those who are inactive (Kissow, 2013). Thus, sport as a tool to promote health, quality of life and social integration is beneficial for people with disabilities, namely in terms of self-confidence (Blauwet & Willick, 2012; Frank et al., 2013; Slater & Meade, 2004), life satisfaction, quality of life and self-esteem (Blauwet & Willick, 2012; Frank et al., 2013; Sahlin & Lexell, 2015; Sikorska & Gerc, 2018; Slater & Meade, 2004), reduction of suicidal tendencies and a more independent attitude (Kamberidou, 2019), and motivation to develop further (Blauwet & Willick, 2012; Frank et al., 2013).

Laskowski (2012) indicates that the main difficulties in adapted sports are: the lack of policies with detailed obligations and programmes for educational institutions to offer to students with disabilities; the lack of resources and training for those responsible for creating inclusive programmes; the absence of such inclusive physical activity-specific programmes in schools and universities; the lack of awareness among parents and young people with disabilities of their rights to access and participate in such programmes; and the persistently low advocacy and dissemination of the need for those responsible for developing such inclusive sports programmes. In addition to identifying possible venues for

sport, it is also important to understand the role that significant others can play in encouraging people with disabilities to participate in sport. Parents, friends, therapists, psychologists, teachers, volunteers and others who offer and enable disabled people to participate in sport are essential to their integration into sport. (Winnick & Porretta, 2017).

Social support is considered a positive influence in the context of sports for people with disabilities (Dunst & Trivette, 1990). Several studies have been conducted in this area (Aitchison et al., 2021; Atkinson & Martin, 2020; Cardoso et al., 2018; Crawford et al., 2015; Fiorilli et al., 2016; Haslett et al., 2017; Machida et al., 2013; Mira et al., 2022; Monton et al., 2022; Powell & Myers, 2017; Swanson et al., 2008). Cobb (1976) defines social support as a condition that tells the person that he/she is loved, cared for, valued and an integral part of a network of mutual obligations. The origin of social support can be considered informal when it comes from family, friends, neighbours or social groups that accompany the person on a daily basis or formal when it comes from social institutions such as hospitals, doctors, social workers and other professionals (Dunst & Trivette, 1990). Social support refers to the psychological and material resources of a social network that help to cope with certain difficult situations. There are four dimensions of social support: emotional support, esteem support, informational support and material support (Rees & Freeman, 2009).

There is a consensus on the relationship between sports practice and parental social support, which has been extensively studied in children, adolescents and young people (Beets et al., 2006; Dowda et al., 2007; Edwardson & Gorely, 2010; Loucaides & Tsangaridou, 2017; Ornelas et al., 2007), as well as social support from friends (Loucaides & Tsangaridou, 2017). Both sources of social support have been shown to be important contributors to physical activity practice, but friends have a more impactful influence in this context (Cheng et al., 2014; Loucaides & Tsangaridou, 2017).

Friendship is considered to be an important source of social support and influence for physical activity; those who engage in physical activity tend to make friends with those who engage in similar levels of physical activity and ultimately adopt behaviours, creating an interdependent relationship between physical activity practice and friendship networks (Hayes et al., 2013). Recent studies have analysed the social support a best friend provides and its influence on physical activity in adolescents (Kandola et al., 2020; Martin, 2006; Martin & Smith, 2002; Monteiro et al., 2021; Stearns et al., 2019). In the context of sports, coaches have proven to be an essential source of social support, providing support and guidance that results in strong relationships (Gillham et al.,

2015; Greendorfer, 2002; Lu et al., 2016; Mira et al., 2022, 2023; Sheridan et al., 2014). According to Greendorfer (2002), coaches play a key role in the experiences of the young people with whom they interact. Taylor and Bruner (2012) add that the coach has a remarkable ability to foster the relationship with the group, thus reducing social exclusion within the group itself. Sheridan et al. (2014) found that the coach was identified as the person who primarily supported the young person in a sporting context. On the other hand, the combined effect of support from coaches, parents and friends has also been shown to be extremely important for athletes, including disabled athletes. It could contribute to increased levels of physical activity or sports participation by people with disabilities.

Sports participation by people with disabilities has also been shown to be associated with resilience, particularly access to social support, opportunities and meaningful social experiences, in people coping with traumatic injury (Machida et al., 2013). Athletes with disabilities demonstrate significant levels of resilience (Cardoso & Sacomori, 2014; Machida et al., 2013; Sikorska & Gerc, 2018). Fletcher and Sarkar (2012, p. 675) describe resilience as “the role of mental processes and behaviours in promoting personal assets and protecting individuals from the potential negative effects of stressors.”. How a person responds positively to adversity depends on the adversities they have been exposed to and their own adaptation to them (Morgan et al., 2013).

Powell and Myers (2017) note that Paralympic athletes generally recognise that their ability to overcome difficulties is linked to their physical and mental experiences and challenges related to their disability. They believe that the development of these resilient traits and the ability to cope with physical and emotional pain comes from the constant exposure to pain and stress experienced (Powell & Myers, 2017). The wheelchair tennis players who participated in the study by Richardson et al. (2017) highlighted an important detail: participation in this sport builds resilience, which can then be transferred off the court. The challenges they face as players help them develop resilience that they can apply to their everyday lives. Hariharan et al. (2014) found that resilient people with disabilities have higher emotional intelligence and more positive perceptions of their environment. These positive perceptions, combined with emotional resources, enable these people to overcome barriers and difficulties.

On the other hand, due to their inherent characteristics and challenges, people with disabilities are a vulnerable risk group for mental disorders such as depression, anxiety, stress, frustration, lack of motivation and social impairment (Sahlin & Lexell, 2015). Many sports that are initiated during

rehabilitation can be continued for enjoyment throughout the life of the person with a disability, with enjoyment being identified as the main motivational factor in the willingness to continue with sport (Martin, 2006). The emotional experiences associated with physical activity help people build psychosocial resources contributing to mental health. In contrast, sedentary behaviour can reduce positive emotions, leading to a reduction in these resources (Hogan et al., 2015). Several studies have shown a positive relationship between physical activity and higher levels of well-being (Caddick & Smith, 2014; Hogan et al., 2015; Mack et al., 2012; Smith et al., 2011). This relationship has also been demonstrated specifically with subjective well-being (Downward & Rasciute, 2011; Ku et al., 2007, 2014; Moraes et al., 2012; Olsson et al., 2014).

Subjective well-being, which has a hedonic premise and is complex and multifaceted, evaluates life cognitively and affectively and is divided into two components: the emotional component (positive affect and negative affect) and the cognitive component (life satisfaction) (Diener et al., 1999, 2003; Ryff & Keyes, 1995). Cognitive evaluations are characterised by satisfaction with life and a sense of personal fulfilment, and affective evaluations require the presence of positive affect (positive emotions and moods) and the absence of negative affect (negative emotions and moods) (Dias et al., 2008; Diener, 2000; Diener et al., 2003; Diener & Ryan, 2009; Giacomoni, 2004; Ryan & Deci, 2001; Waterman, 2008). Positive affect is characterised by a hedonic satisfaction experienced at a particular moment, based on a description of an emotional state rather than a cognitive judgement. Negative affect is characterised by a transient state involving negative experiences. Life satisfaction is a cognitive evaluation that a person makes of certain aspects of his or her life based on comparing real-life circumstances with a self-defined model (Albuquerque & Troccóli, 2004; Diener et al., 2003).

In studies analysing subjective well-being in athletes with disabilities, athletes express high levels of positive affect and low levels of negative affect (e.g., Puce et al., 2023; Shapiro & Malone, 2016). High levels of life satisfaction are associated with sports practice and the experiences adapted sports provide (Martin et al., 2015, 2022; Rodrigues et al., 2021; Sikorska & Gerc, 2018). People with physical disabilities who participate in adapted sports have higher life satisfaction than people with physical disabilities who do not participate in any adapted sport (Blauwet & Willick, 2012; Frank et al., 2013; Yazicioglu et al., 2012). Sports are presented as activities that allow one to divert negative emotions and energies (Machida et al., 2013). Athletes with disabilities also report that their sports experience was positive in terms of motivational, affective, cognitive, and social variables (Martin, 2006).

Research into sport, social support, resilience and well-being in the context of disability is an asset due to the need to broaden and deepen knowledge on the subject to bring about changes in social attitudes and behaviours still strongly present in our society. In order to understand and contribute to research on this subject, Mira et al. (2023) carried out a systematic review to better understand the state of the art of these variables in the context of adapted sports. The authors found that some studies consistently validate the importance of social support in adapted sports (Cardoso et al., 2018; Monton et al., 2022; Swanson et al., 2008). Similarly, the literature has shown associations between sports practice and resilience (Cardoso & Sacomori, 2014; Machida et al., 2013; Porto et al., 2016) and also between sports practice and well-being (Downie & Koestner, 2007; Dursun et al., 2014; Kokun et al., 2018, 2021; Mudjianto et al., 2017; Shapiro & Martin, 2010) in people with disabilities. Studies were also found on the relationship between well-being and resilience (Martin et al., 2015, 2022; Sikorska & Gerc, 2018), resilience and social support (Powell & Myers, 2017), social support and well-being (Aitchison et al., 2021; Crawford et al., 2015; Fiorilli et al., 2016). A few studies examined the relationship between the three variables in this population (Atkinson & Martin, 2020; Mira et al., 2022).

Considering the lack of studies on the three variables together for adapted sports and the lack of studies on these variables in Portuguese athletes, Mira et al. (2022, 2023) designed an investigation with this objective. Initially, they applied the research to paralympic athletes at the Tokyo 2020 Paralympic Games (Mira et al., 2022). Then, a similar protocol was applied to Portuguese federated athletes in adapted sports (Mira et al., 2023).

Mira et al. (2022) characterised the Portuguese delegation at the Tokyo 2020 Paralympic Games using sociodemographic and psychosocial variables (positive and negative affect, life satisfaction, resilience and social support), allowing to get to know the reality of these athletes, such as the number of hours they train per week and their academic and professional situation. These data helped to reflect on the need to encourage academic careers and make it possible to reconcile them with the dual career of sports training. The dual career aims to allow elite athletes to reconcile their sporting career fairly with their academic career (Picamilho et al., 2021). Portuguese Paralympic athletes participating in Tokyo 2020 have high levels of life satisfaction, high levels of positive affect and low levels of negative affect (Mira et al., 2023). These findings seem to be in line with previous studies, which have concluded that Paralympic athletes' interactions with others, both able-bodied and disabled, provide them

with opportunities to build new relationships and friendships and increase their life satisfaction (Bardiovský et al., 2013). A high score for resilience was also found in these athletes (Mira et al., 2023), confirming the literature which has found that athletes with disabilities have significant levels of resilience (Cardoso & Sacomori, 2014; Côté-Leclerc et al., 2017; Machida et al., 2013; Sikorska & Gerc, 2018).

Regarding social support, it was found that the coach had the highest value or greatest influence on the athlete, followed by friends, best friends and, finally, parents (Mira et al., 2023). This fact is consistent with Banack et al. (2011), who reported the importance of the Paralympic athlete's relationship with the coach in supporting autonomy. Many athletes, depending on their disability, need a coach to assist them with basic training and competition activities. In the study of these athletes, an association between life satisfaction and positive affect was observed, which is consistent with the conceptual framework of subjective well-being (Diener, 2000; Diener et al., 1985, 2003; Diener & Ryan, 2009) and some recent studies (Busseri, 2018). The association between positive affect and social support from parents and friends reinforces the importance of this support on athletes' emotional states and confirms some of the evidence in the literature (Mousavi et al., 2021; Saphiro & Malone, 2016). Regarding resilience and its negative association with negative affect, it seems to indicate a possible buffering effect of resilience for negative emotional experiences (Cohn et al., 2009; Ong et al., 2006; Ryff & Singer, 2003).

After analysing social support, resilience, and subjective well-being in paralympic athletes, exploring the relationship between these variables in Portuguese federated adapted sports athletes became pertinent. A study is carried out with the aim to analyse the association between types of social support (parents, coach, friend and best friend), resilience and positive and negative affect in Portuguese athletes with disabilities engaged in sports (Mira et al., 2023).

Athletes with disabilities presented scores above the mean on the scales assessing resilience and positive affect and below the mean on the scale assessing negative affect in the four social support models analysed. Four of the hypotheses posed were not supported as the associations between social support and levels of resilience were not significant for any of the sources (parents, friends, best friend and coach). The indirect effects between social support from parents, friends, best friend and coach and positive affect and negative affect through resilience were not significant (Mira et al., 2023). These findings seem to contradict some studies that have analysed these variables and argued that athletes, in general, can benefit from exposure to highly demanding

situations in a supportive environment in order to develop mentally strong traits and behaviours (Powell & Myers, 2017).

A positive and significant association was found between resilience and positive affect, and a negative association between resilience and negative affect. Analysis of the effect of social support from best friends, coaches, friends and parents showed a direct effect on resilience and positive affect and negative affect, being in line with the literature, which states that exposing athletes with disabilities to highly demanding and socially supportive situations benefits them in the development of resilient traits and behaviours (Machida et al., 2013; Mira et al., 2023).

These two studies provided a more in-depth insight into the relationship between adapted sport, social support, resilience and well-being in Portuguese athletes. In short, these studies have allowed us to conclude that the disparity between the total number of men and women practising adapted sports is still a reality (Mira et al., 2022, 2023). Training hours per week are quite heterogeneous between athletes and sports disciplines (Mira et al., 2022), and the availability and accessibility of adapted sports at the national level are significantly lower in the interior of the country (Mira et al., 2022).

The source of social support is extremely important for access to sport. However, it does not necessarily have to be positively and significantly associated with resilience or subjective well-being (Mira et al., 2023).

Athletes with disabilities scored above the mean on the scales assessing resilience and positive affect and below the mean on the scale assessing negative affect in the four social support models analysed (Mira et al., 2022, 2023).

With respect to social support, it is interesting to note that technical support is more important for federated athletes with disabilities than specifically for elite (Paralympic) athletes, in contrast to parents (Mira et al., 2022, 2023). The support from friends is unanimous in its importance for both federated athletes with disabilities and Paralympic athletes (Mira et al., 2022, 2023). In the four models analysed (parents, coach, friends and best friend), there is a direct effect of the type of social support provided with resilience, positive and negative affect. There is also an indirect effect between types of social support and affect (positive and negative) through resilience (Mira et al., 2023). Contrary to what was expected, the different types of social support did not show a significant association with levels of resilience. These results do not seem to align with some literature (Mira et al., 2023). There was a positive and significant association between resilience and positive affect and a negative association between resilience and negative affect. The results show that resilience, more

than perceived social support itself, seems to have a preponderant weight in the outcome of sport practice, in this case subjective well-being, in its emotional component (positive and negative affect) (Mira et al., 2023). The negative association between resilience and negative affect seems to indicate a possible blocking effect of resilience on negative emotions experienced by athletes; when faced with a given risk situation, the athlete with a disability may react in a vulnerable way, with a negative affective response, or in a resilient way, with a positive affective response (Mira et al., 2022, 2023). Analyses of the effects of social support from best friends, coaches, friends and parents showed direct effects on resilience and positive and negative affect (Mira et al., 2022, 2023).

The types of social support work a team have to assist in the various challenges and tasks inherent and adapted to the characteristics and needs of athletes with disabilities and, therefore, the sources of social support must be multiple, from family members, therapists, colleagues, coaches, among others (Mira et al., 2022, 2023).

In particular, resilience seems to have a highly relevant role and impact on the well-being perceived by athletes and should be the object of attention and a variable to be enhanced in the context of sports (Mira et al., 2022, 2023). Sports have an environment that exposes athletes to the risks, demands and stresses inherent to the competitive nature, allowing athletes with disabilities to strengthen their personal and social resources, as well as their positive attributes and social support network, enabling them to successfully overcome adversity, with above-average levels of resilience (Mira et al., 2022, 2023).

The effect of social support from best friends, coaches, friends, and parents had a direct effect on resilience, as well as positive and negative affect. A positive and significant association was also found between resilience and positive affect, and a negative association between resilience and negative affect (Mira et al., 2022, 2023). The strongest relationship of the variables examined was found between resilience and affect, with no relationship between sources of social support and resilience or affect, as hypothesised (Mira et al., 2023).

Concerning resilience and its negative association with negative affect, this seems to indicate a possible buffering effect of resilience for negative emotional experiences (Cohn et al., 2009; Ong et al., 2006; Ryff & Singer, 2003).

In summary, this research challenges some existing hypotheses and emphasises the complexity of the relationship between social support, resilience and well-being for athletes with disabilities. These findings have implications for various stakeholders in the field of adapted sports, from parents, friends, coaches, therapists, psychologists and society

in general, highlighting the importance of supporting, promoting and valuing participation in adapted sports.

Furthermore, this can have practical implications, such as the creation of accessible and inclusive sports programmes, the promotion of education and awareness and the establishment of partnerships to develop adapted sports further. These conclusions are important and should be considered by policymakers and other organisations when developing educational and sporting policies, as it has a positive impact on the well-being, resilience and social support of people with disabilities, contributing to the improvement of their personal development, their quality of life and their integration into society.

It is suggested, in future research, to relate psychological variables (e.g., well-being, resilience, social support) to demographic variables (e.g., age group) and to sport practice variables (e.g., years of practice), as well as to consider comparing people with and without disabilities and types of disability. In parallel, future studies could assess social support, resilience, and subjective well-being according to the type of disability, congenital or acquired, and if acquired, in relation to the time of acquisition and needs. The sources of social support are crucial actors in the athletes' access to sports practice, so it would be useful to analyse the levels of resilience of parents, friends, best friends, and coaches themselves. Despite the results of this work, it will be important for future studies to use larger samples and longitudinal analyses.

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