

Resilience in Turkish Physically Disabled Athletes: The Role of Sport Participation

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Abstract

The purpose of the study was to examine sources of resilience for physical disability athletes. This is a qualitative study aiming for in-depth investigation of protective mechanisms for physical disability athletes in their lives. The criterion sampling method, one of the purposeful sampling methods, was used to determine the participants of the current study: (I) Having an acquired physical (orthopedic) disability, (II) Being at least over the age of 18, (III) Currently, participating in a sport and, (IV) having national or international achievements in their recognized sports. The participants consisted of 12 physically disabled athletes five of whom were women and seven of whom were men. A semi-structured interview technique was employed in the present study. Content analysis was used to analyze data obtained in the study. Resulting social support, included the positive outlook one has, spirituality and belief, demonstrated significant protective factors for strengthening resilience. It was shown that participating in sporting activities, the experiences during these activities, the interpersonal relations established through them, and receiving achievements in this context provides significant strength for people.

Keywords: *Physical disability, resilience, athletes, sport.*

Türk Fiziksel Engelli Sporcularda Yılmazlık: Spora Katılımın Rolü

Öz

Bu çalışmanın amacı fiziksel engelli sporcularda yılmazlık kaynaklarını incelemektir. Arařtırma fiziksel engelli sporcuların yaşamlarındaki koruyucu faktörlerini derinlemesini incelemeyi amaçlayan nitel bir çalışmadır. Arařtırmanın katılımcılarını belirlemek üzere amaçlı örneklem yönteminden yararlanılmış olup, katılımcıların belirlenmesinde řu ölçütler dikkate alınmıştır: (I) Fizisel bir engele sahip olma, (II) En az 18 yaşında olma, (III) řu anda bir spora devam etme, (IV) Spor alanında ulusal ya da uluslararası başarılar sahip olmadır. Arařtırmanın katılımcıları beř kadın ve yedi erkek olmak üzere 12 fiziksel engelli sporcudan oluşmaktadır. Arařtırmada yarı-yapılandırılmış görüşme teknięi kullanılmıştır. Elde edilen verilerin analizinde içerik analiz teknięinden yararlanılmıştır. Arařtırmanın sonuçları sosyal destek, maneviyat ve inancı içeren pozitif bakış açısının yılmazlığı güçlendiren önemli koruyucu faktörler olduğunu ortaya koymaktadır. Sportif aktivitelere katılımın, bu aktivitelere katılanların, burada oluşturulan kişilerarası ilişkilerin ve sporda elde edilen başarıların katılımcılarda yılmazlık için önemli bir güç kaynak olduğu sonucuna ulařılmıştır.

Anahtar Kelimeler: *Fiziksel engellilik, yılmazlık, sporcular, spor*

Introduction

Traumatic and disabling injuries people face in their lives are important experiences, often representing turning points leading to new behaviors, to a changes in relations with others, or providing a new perspective on life. Some individual cope with such traumatic situations by turning this situation into a 'chance', even though they initially think that it is a disrupting and devastating situation (Walsh, 1998). Thus, an important question emerges as to how, in such a situation, can an individual who has experienced this negative life experience become stronger and hold on to life tightly? To investigate this question, resilience-based approaches examine the processes which provide individuals with positivity and hope in their reactions towards negative experiences in their lives (Luthar and Cicchetti, 2000; Specht, Polgar, and King, 2003).

The resilience-based approach was developed to explain how some individuals, who face similar difficulties, live a healthier life and come to possess resiliency skills compared to those who face similar stressful events or life changes, but end up struggling with maladaptation (Richardson, Neiger, Jensen, and Kumpfer 1990). Although researchers have not reached a consensus for a definition of resilience, there is general agreement that resilience is an aptitude some individuals demonstrate, even at a minimum level, when faced with hardship (Hooper 2009). In this sense, resilience can be defined as an adaptation to negative life events (Garmezy, 1993; Masten and Coastworth, 1995). Resilience can be further defined as a dynamic process that involves a positive adaption when a traumatic condition is encountered (Mackay, 2003; Newman 2005). Resilience, then, encompasses forms of positive adaption involving the development of new skills, identifying new goals in life, developing relationships, and changing perspectives (Tedeschi & Calhoun 1995). For those individuals who acquire a physical disability later in life, these attributes of resilience may provide a path towards a meaningful and rewarding life. Indeed, when reviewing relevant literature, it is clear that having a physical disability can negatively impact the presence of resilience, while also increasing levels of depression, anxiety and stress for affected individuals (Dunn, Uswatte, and 2009; Goodley, 2005; Hayter and Dorstyn, 2013).

Studies have focused on how individuals psychologically deal with the consequences of physical trauma. These studies indicate that the severity of the resulting disability is more important than the initial traumatic experience, and that the resilience potential is closely related to psychosocial well-being (deRoos-Cassini, Mancini, Rusch, and Bonanno, 2010; Migliorini, Callaway, and New 2013). Previous researchers identified several factors that correspond to a strengthening of resilience in the face of traumatic injuries or obstacles. These factors include an internal locus of control, high self-efficacy and receiving social support (Bonetti and Johnston, 2008; Ruddell and Shinew, 2006). Other factors identified with resilience that support the adaptation process and the emotional balance of individuals include increases in positive thinking, being optimistic, and maintaining positive attitudes towards oneself (Guest, Craig, Tran, and Middleton, 2015; Monden et al., 2014).

In a previous study (Geard, Kirkevold, Løvstad, and Schnake, 2018), it was observed that the participants associated their innate personal resilience and well-being to strong bonds of support from families and friends. These studies support the fact that having a physical disability gives the person the opportunity to view the outer world from a different perspective, seeing their inner journey as a path towards intrapersonal and interpersonal growth and maturation. In such a situation, individuals may be provided with different opportunities like participating in sports related activities, thereby enabling them to develop and strengthen their resilience processes.

In a social-ecological context, sources of resilience are not only related with individual features, but also link to a range of environmental interactions (Zimmerman and Arunkumar, 1994; Ungar, 2008). In the present study, resilience resources were evaluated in a social-ecological context so as to attract attention to the cultural and social-ecological dimension, to the resources that are based on cultural and social structure, and to highlight how this context contributes to the strengthening of the individual (Ungar, 2011). Here, the interaction between the individual and the environment enables us to understand what sort of strengths one has to recover especially in difficult times. This requires that we understand how the individual interacts with the society and culture by locating their lives within a

broader context, compared to solely focusing on personality traits and the immediate environment (family, peers, school).

The significance of the study is that it accounts for the use of micro-level adjustments that provide resilience in relation to other people (peers, family, closer environment) within a broader, and resource rich, societal context. The social-ecological approach focuses on the positive adaption process; it identifies the resources that may strengthen linkages between the individual and society, and it describes the resilience resources of individuals by considering the conditions and context they find themselves in. Following an extensive review of different disability models, such as the medical model, the social model, the human rights model, the cultural model, and the charity model, it was decided that the social relational model was the most suitable for the purpose and integrity of the present study.

The social relational disability model distinguishes between personal restraint experiences and the effects of impairment in the social setting (Reindal, 2008). The model (Reeve, 2004) is considered to be progressive, in that it conceptually describes disability as an experience of socialized impairment (Haslet, Fitzpatrick, and Breslin, 2017). The social relational model defines disability as a consequence of the social disadvantages and constraints on participation. The disabling effects of social exclusion are further expressed within the psychological-emotional dimension, as well as the biological or physiological aspect of disability (Reeve, 2004). Recently, this model has been used in several studies to examine the experiences of athletes in the context of disabled sports (Martin, 2013). These and other studies have shown that participation in sports activities, general exercise, and leisure activities have had a positive effect on the health of physically disabled individuals (Jones, Legge, and Goulding, 2002; Goodwin et al., 2009; Nash, 2005; Page O'Connor and Peterson, 2001; Smith, 2013). Similarly, sports based activities have also shown positive impacts on psychological health of the individuals (Groff, Lundberg, and Zabriske, 2009; Kim, Lee, and Ji, 2018). Researchers have shown that individuals with physical disabilities who participate in sports demonstrate higher levels of resilience in terms of managing emotion problems (Graham, Kremer, and Wheeler, 2008), psychological well-being (Haslet et al., 2017), reducing depression and anxiety conditions (Hicks et al., 2003; Latimer, Martin, Ginis, Hicks, & McCartney,

2004), strengthening self-esteem, raising their quality of life, and providing an athletic identity (Anderson, 2009).

While resilience studies are well represented in the areas of developmental and clinical psychology, studies examining resilience in the field of sports, particularly in relation to physically disabled athletes, are few in number. However, researchers have begun to investigate the resilience resources of athletes in detail (White and Bennie, 2015; Fletcher and Sarkar, 2012), and there are noteworthy studies that have investigated the protective and supportive factors that enable physically disabled athletes to become resilient athletes (Machida, Irwin, and Feltz, 2013; Sarkar and Fletcher, 2014). Additionally, researchers have shown that socio-cultural factors are important in assessing resilience in the field of sports (Galli and Vealey, 2008; Fletcher and Sarkar, 2012; Sarkar and Fletcher, 2014). In one qualitative study (Machida et al., 2013), participants pointed out that sports facilitated the resilience process. Participation in sports related activities allowed many individuals to achieve levels of success that gave them a sense of achievement and satisfaction. This sense of achievement was expressed as an increase level of confidence in their physical prowess, and this trust transferred to their lives inside and outside the world of sport.

Other studies indicate that sports experiences might provide important social support to people who have disabilities (Anderson, Wozencroft, and Bedini, 2008; Graham et al., 2008). In one particular study, differently abled athletes who had won olympic gold medals reported positive features of resilience from participating in sports (Gould, Dieffenbach, and Moffett, 2002). These features included increases in self-confidence, the ability to accomplish something, to work ethically, and to be optimistic, all of which enabled them to resist some stressors from daily life and to better manage important life events. Similarly, Fletcher and Sarkar (2012) found that personality, motivation, trust, focusing and perceived social support were important protective factors of resilience in Olympic champions. Thus, active participation in sports does not only strengthen resilience, it also has positive effects on different areas of an individual's life. Finally, White and Bennie (2015) showed that participating in gymnastics not only strengthened resilience but also improved many life skills and affected interpersonal relations, self-efficacy and self-respect in a positive way.

In the light of these findings, drawn from a range of empirical studies, the purpose of the present study was to show the function of participation in sports related activities in the development and deployment of resilience. The goal, then, is to examine in detail the resilience resources of disabled athletes engaging in athletic activities, particularly those who have achieved success at national and international levels.

Method

The present study is a qualitative examination of how individuals dealing with the trauma of late-life disability identify positive effects that accrue from participation in sports, and how these positive effects support and enhance resilience resources. The criterion sampling method, a purposeful sampling method, was employed with the following criteria: (I) Having an acquired physical (orthopedic) disability. (II) Being at least over the age of 18, (III) Currently, participating in a sport and, (IV) having national or international achievements in their recognized sports.

Participants

The participants consisted of five female athletes ($M = 29.60$, $SD = 11.78$, range = 21-50 years), and seven male athletes ($M = 27.86$, $SD = 7.34$, range = 20-37 years), for a total of 12 physically disabled athletes. The participants were active in different sports including para-badminton, para-volley, table tennis, Tae kwon-do, wheelchair basketball, amputee football, and wrist wrestling. Participants had been involved in one of these sports for a minimum of five years and had earned national or international degrees in their respective sports. Table 1 shows the education information, types of disability, disability periods and achievements of the participants.

Table 1 Information on the education, disability type and duration, and achievements of the participants.

Presudonym	Educational status	Disability type	Disability duration (year)	International/National Achievement
K1	Primary school	Paraplegia	15	International Tournament - Third place
K2	University	Loss of sense in the lower extremity	23	National Tournament - First place
K3	University	Traumatic Amputation (arm)	15	International Tournament - First place
K4	High school	Traumatic Amputation (arm)	11	World Championship - Second place
K5	High school	Low Paraplegia	12	National Tournament - Third place
K6	University	Traumatic Amputation (arm)	5	National Tournament - Second place
K7	University	Traumatic Amputation (leg)	23	International - Third place
K8	University	Loss of sense in the lower extremity	13	European Championship - Second place
K9	University	Traumatic Amputation (arm and legs)	15	Olympic Games - Second place
K10	University	Traumatic Amputation (arm)	16	European Championship - Third place
K11	University	Traumatic Amputation (leg)	9	National Tournament - First place
K12	University	Traumatic Amputation (leg)	21	National Tournament - First place

Before addressing the impact that participation in sports had on resilience, the participants were asked the question “How did you start sports?” Participants shared information showing that they started sports following suggestions from the club president or the coach of a sports team. Other routes to participation came through family, acquaintances, the Disability Support Office of the university, the guidance of the physiotherapists, and announcements for participation read in newspapers.

Data Collection

In order to reach target participants, planning was initiated by the first author of the present study. This study was approved in Turkey by Selçuk

University, Sports Sciences Faculty, Research Ethics Committee (Ethic form date and number: 18/10/2017- E.105146). Communication for interviews was established with participants, and suitable times for conducting interviews were arranged. Participants were interviewed at the office of the researcher and accommodations were made for ease of access to the site. Before the interviews were conducted, informed consent forms were given to the participants and they were informed about the purpose, the content, and the method of the present study. Permission was received from the participants to record their voices for the express purpose of data collection. The data for the study was collected using semi-structured interview forms and with the face-to-face interview techniques.

Demographic information form: This form was prepared by the researchers to obtain data on the age, gender, educational level and occupational status, types of physical disability, and ongoing sports activities.

Resilience Interview Form (RIF): In this study, a semi-structured interview form was developed by the researchers to determine the protective factors that strengthen the resilience of the disabled athletes. The form development process included three steps: firstly, a review of empirical studies that examined resilience approaches employing a social-ecology of resilience framework (Ungar, 2008). This stage also involved a review of studies that investigated physical disability and positive adaptation processes of disabled athletes. Secondly, for the draft RIF, the authors asked for opinions and advice from a researcher who conducted qualitative studies in the field of psychological counseling, guidance, and resilience. Additional consultations took place with an academician who conducted qualitative studies in the field of social gender roles in sport, and an academician who has conducted various physical activity projects involving both qualitative and quantitative disability studies.

All the questions in the resilience interview form were open-ended questions. The RIF consisted of questions that asked participants to express the meaning they gave to their negative, traumatic, and disabling event. The questions were designed to allow individuals an opportunity to identify personal characteristics of resilience after a negative experience. The questions also asked about the presence of social supports participants may have

received from their immediate community and from the society at large. Other questions explored the location of spirituality and faith in the healing and recovery process, the meaning of the future, and what effects that participation in sports had on their personal resilience.

In this way, the questions were detailed to recognize the individual features at the micro level, as well as interactions with the environment, both of which were framed within a wider social system. Some examples of the questions in the interview form are as follows: *“How would you define the most important strength or personal characteristics you have to overcome this situation?”* *“What are the opportunities provided to you by the society in which you live?”* (Educational services, healthcare, transportation and accessibility, etc.). *“What would you like to say about the benefits/contributions of sport activities and regular exercises for you?”*. The analysis of the interview process and the results were conducted separately by both researchers for purposes of reliability and external verification.

Data Analysis

Each interview lasted approximately 56 minutes. Following the interview phase, the audio recordings of individual interviews were transcribed for a total of 124 pages of raw data. To ensure confidentiality, all participant responses were encoded. During the coding process, each participant was encoded as “P” and was given a number as “P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12” next to the code. Content analysis was used for qualitative data analysis to explain the raw data and to define the affinity and meanings within a conceptual relationship (Patton, 2002). The content analysis was carried out in 4 steps: 1) the encoding of the data; 2) finding the themes; 3) organizing the codes and themes and; 4) defining and interpreting the findings.

Trustworthiness

In qualitative research, diversification amongst researchers is a significant reliability factor. Here, one of the researchers works in the field of psychological counseling, while the other researcher works in the field of sports

sciences. This level of cross-disciplinarian collaboration enabled them to interact with the data from their respective knowledge domain. Following this process, the researchers cooperated in a manner that allowed different perspectives to enter the final content analysis process. The content analysis process was performed by both researchers, and then the findings were compared and checked. After the independent coding was completed the similarities and differences were compared between the researchers, and themes were created around the hypothetical framework.

Results

According to the content analysis four themes were identified to explain the resilience of athletes who had physical disabilities. The following themes were identified: (I) The meaning associated with negativity, (II) having strengthening resources (personality characteristics, sport), (III) social support resources (family, close surrounding, and community resources), (IV) spirituality resources (religion, spirituality and life meaning).

The meaning associated with negativity

Because the participants were adults who had recently acquired a disability, a primary concern was how they perceived themselves in negative terms, and how they expressed any sense of negativity as newly disabled individuals. Therefore, the following question was asked: *“What does having a physical disability mean for you?”* Participant responses indicated that physical losses produced different meanings. Most of the participants tried to explain this difficult situation in a more accepting way, with some reporting more positive meaning drawn from their particular situation. For those who did find positive meaning, they expressed that the experience was a great acquisition in their life. This situation is an indicator showing that they had generated a positive attitude towards this negative event. Some participants emphasized that this was a very “teaching” experience for them, and they perceived it as an opportunity to enable them to be self-sufficient and personally empowered. One of the participants tried to explain this as follows:

“...I would not believe it before if I was told about it. But I do not consider myself as disabled. It has many benefits. I am in fact glad that I am disabled” (P4).

Having strengthening resources

Personality characteristics

Participants were asked to define what the most important and strong characteristics they used to overcome their situation. This question is particularly significant for understanding the personal resilience characteristics embodied at the micro level. Most of the participants noted "perseverance" as an important personal strength that helped them to overcome their physical disability. They especially associated having perseverance with the desire to succeed, the ability not to be easily defeated in the face of challenges, and the ability to be a challenging person. One of the participants defined this situation as:

"On my side, it will be a bit personal, but I have never given up. No matter that I lost my arm, I am aware of something. This is from God. In the following period, it has come to a level that I have decided that it was a gift. If I do not give up anything, I can do it. If I consider that I can make it, everything becomes possible" (P3).

The participants associated the characteristics of perseverance and ambition as important personality traits they possessed. Participants believed that having these distinctive characteristics differentiated them from others; in other words, their personality traits were seen as an important source for explaining resilience characteristics. In addition to these characteristics, other important resources of resiliency were reported as social and interpersonal skills.

"With the help of my being sympathetic, extrovert, and talkativeness. I take it when I want something. I will go till the end when I want to do something" (P9).

Sport

Sport activities that supported resilience were evaluated as to how individuals "participate in sport activities and sport life acquisitions". We tried to understand how the participants were involved in sports and the ways participation in sports changed their lives as physically disabled individuals. The participants stated that after they started sports their physical health improved, emphasizing that sports provided a healthy life style and played an important role in the regulation of their nutrition habits. The participants explained the contribution of sports to the recovery process in physical health as follows:

“I overcame the balance problem with the help of sports. I can maintain my balance, this is very good. For example, when I walked on the road, I slightly tilted to the left, and sometimes I could not maintain my balance. Secondly, I started eating a healthy diet. Thirdly, my muscles improved. I am susceptible to many diseases as an inherited genetical characteristics. Thanks to sports, I can be protected from most of them” (P9).

Almost all of the participants emphasized having a more positive viewpoint towards life, increasing self-confidence as individual strength increased, along with increases in life quality and a sense of purpose in life. One participant emphasized the effects that sports had on both physical and psychological health, as well as general life quality.

“As I spend time doing sports, I can now travel without using the prosthesis. I can take off my jacket and walk, I can wear my short-sleeved shirt freely and enjoy my freedom. At first, I would become very uncomfortable because of the questions of people. They would ask questions out of the blue, and I would feel entrapped, but not anymore. I answer to everyone with a smiling face, or even if they say something negative, I laugh and move on. Because I am aware of the beauties it added to me, and because it is a field that changed my life from the beginning to the end. It increased my life quality in every aspect, I hope it will be much better. I have faith that it will take me to even more beautiful places” (P3).

Another participant emphasized the positive effects that participation in sports had on their life after being physically disabled:

“Sports is everything for me, all the doors opened with it. I love it, I found myself with it. It changed my life a lot. I have self-confidence now. I saw what I could do with my left hand. I became very strong. Sport brought me to a very beautiful place. I was very shy, I could not even meet people because I lost my arm. I became better with sports. I can say that my shyness went away. I believe that I will come to better places in the future” (P6).

Some participant pointed out that participation in sports strengthened their resilience resources, suggesting that it provided a positive viewpoint for making sense of life. However the participants in the study group also emphasized that participating in sports increased the feelings of sharing and cooperation by strengthening interpersonal relations. One of the participants described the importance of participating in sports activities in terms of personal awareness and interpersonal acquisitions:

“Without sports I would not recognize myself that much. I would not know my own limits that much. Thanks to sports, I am in this situation now... Of course, this sport will end one day, of course, the most important thing it gave to me is my family, I have a wife, I have a child. I have friends, and maybe this was all thanks to sports” (P8).

Social support resources

Family: Social support resources are used for one’s own benefit in terms of systematic and developmental resources of resilience when faced with difficult experiences and circumstances. Social support types were evaluated as those provided by family, close environment (i.e. friends, relatives and neighbors), as well as types generally available in civil society (benefits provided by the state like education, healthcare and other opportunities). Examining social support structures in detail provides us with important insights about the availability of resilience, as a resource, within a given cultural context. Respondents emphasized the importance of strong social supports they received in overcoming traumatic and difficult situations. They identified the social support received from family, including a close and supportive relationship between their respective mothers, fathers, brothers and sisters. The participants associated the characteristics of support they received from their parents as a form of genuine interest when the participant succeeded in something. They gave hope and support by being present and looking after their every need.

“For example, after I had the accident, my mother never left me. For example, when I pulled myself together, my mother came and covered my needs immediately, when I recovered slowly, she said ‘you should do this yourself, do this and do that’...” (P1).

Close surrounding: The participants stated that they made use of sharing their feelings with their siblings who, in turn, provided psychological support during the treatment process. Siblings were also present during the recovery process, supporting daily life activities such as assisting with the wheelchair:

“I love my sisters very much, I love them so much that they are like my half mother. For example, there were times when I felt really unhappy, there were even

times when I hugged them and cried. They taught me that I should be patient, and this was a gift of God for me. They helped me much in this. It was easier for me to overcome this situation with their soft hearts. At least they gave me strength and trust."

In addition, most of the participants acknowledged the support they received from their close relatives. In one example, cousins and close friends provided support: *"I had cousins. We were 4 cousins together... I think them very much, they never told me that I was 'disabled'. They invited me to matches. I said 'Look. I do not feel like it'. They said 'No, you play really well. You are quite good.' We went several places together. They did not say anything like 'You cannot do this.' They said 'Do this! You can do this!' This had a very good effect on me. I thank them very much. They did not leave me alone in my young age. They loved me very much. "* (P5).

Community resources

Participants discussed a range of community resources that were important protective and life-saving supports for them. These supports included information about educational opportunities, their rights as disabled citizens, and access to physical therapy and rehabilitation services. These services also extended to support in transportation, including discounted public transport fees and appropriate ticket prices and seating arrangements for intercity travel. Additional services, although few in number, included professional assistance, the assistance of school counselors and psychiatrists, and other benefits/opportunities provided by the municipality and the state. These included water bill discounts, purchasing vehicles without paying the Special Consumption Tax (SCT), and the issuance of a green passport. Participants explained the services as follows:

"I benefit from all of the opportunities provided by our municipality for people with disabilities. There are priorities in most institutions. When I show my disabled card in hospitals, they prioritize me. For example, transportation by train is free of charge for the disabled. I can say that this is freedom of travel. I can say that I can use public transport without any trouble. There are even private coach companies aside from the state, for example, we pay a discount of 30% for intercity travel. They give you a discount when you show the disabled card"(P3).

"I received physical therapy thanks to the doctor. We did not pay any fees. I benefited everything from the physical therapy to the hospital without any charges.

I was not able to move my shoulder after the accident, and started to move after physical therapy. It had a great effect, and I benefited from these free of charge. More importantly, I entered the faculty of sports sciences. My disability had a big effect on this. Yes, I entered with the quota for the disabled. Thanks to that, I entered this school”(P6).

Spirituality resources

Resilience sources can mitigate how traumatic experiences come to directly impact an individual's life. These sources support the personal growth or transformation of individuals enduring negative experiences. Individuals who had physical disabilities emphasized that they tried to accept, overcome and explain their condition based on spiritual resources, which provided an important strength that enabled them to survive. Many participants stressed that their religious beliefs, daily worship, fasting, alms and charity, praying, and similar religious activities provided great strength for them to accept and overcome their condition. Participants described the strength they received from spirituality and religious belief in the following ways:

“Thanks to God, I have belief. And when you have belief, you hold on to life because you accept what is given to you from God. Thanks to God, I did not question it much, I did never deal with questions like “why?”. I believed that this came from God, and I tried to hold on to life in this way. Perhaps I stopped myself in this way. For this reason, I am in fact lucky. I am lucky because faith gave me strength. Thanks to God” (P8).

Discussion

This study provides evidence that physically disabled athletes employ a range of protective factors for resilience following a negative experience. For the participants, these factors are expressed as ways to make meaning and sense of their particular disability and life situation. Available meanings include having a positive outlook following a negative experience, the presence of individual strengths (having perseverance), engaging in sport, the presence of social support resources (family, close relatives, friends and social resources), and related spiritual and religious resources. Resilience resources, then, are embedded in micro and social experiences of support

that cumulatively function as protective factors for making meaning out of trauma and for affirming life. The interrelationship between these support systems, coupled with participation in athletics, provides a powerful sense of meaningfulness for individuals who experience a disability later in life.

Understanding resilience from a social-ecological perspective requires research into how individuals interact with both the daily personal micro systems in which s/he lives, and the larger ecological systems that structure and secure access to opportunities for inclusion and support. In this study, we first examined how individuals make sense of traumatically negative events at the micro-level. How we face pain in life, or how we make sense of the events we experience, also affects how we react to these events. Having a physical disability later in life can be a very painful experience in the life of an individual. Understanding how an individual interacts with, and makes sense of, this negativity is an important focus for resilience studies (Walsh, 1998). When confronted with sensations of pain and the recognition of loss, especially in early stages of recovery, people may negatively contextualize their experience, looking to external sources for answers or internalizing the event by asking such questions as, "Why did this happen to me?", "I wish I hadn't done this", or "I wish I hadn't gone there".

In this study, participants resisted defaulting to the above questions by tapping into a range of resources that supported their internal growth and a renewal of self through educational and sport related activities. Also, as a part of the socio-cultural structure, spirituality and religious faith represented a powerful force in maintaining one sense of purpose and selfhood as part of the learning process for understanding and accepting a disability. Walsh (1998) argued that researchers must have some understanding of the belief system that affects the perceptions of individuals, as well as the base cultural and spiritual traditions that allow those individuals to make meaning in a world that at times is marked by trauma and loss. Considering that belief and spirituality have an important place in people's lives in Turkish culture, it can be said that it is common for individuals to consider the power they have gained from belief and spirituality as a source of resilience.

The presence of these resources effectively comes to represent a type of toolkit of and for resilience that supports disabled people with the process of accepting their own situation, changing the route of their lives, trans-

forming the negative event into a great opportunity. Even though the physical disability was at first experienced as a risk factor or a life-threatening condition, it ultimately became a “factor of chance” in their lives. Gourgey (1993) concluded that the presence of a disability can result in positive life outcomes for a person, suggesting that acceptance of one's disability can begin a process of self-discovery and renewal.

Within the micro-ecological structure, participants in this study evaluated and identified their strong characteristics with being resolute, having the determination and wish to succeed, not being easily defeated in the face of hardships, and, ultimately, being a resilient person. Resilience is an important internal strength to have. It is an enduring personality trait that increases one's success by bringing the struggle to succeed under control, and by processing one's success or failure with internal reasons like skills and efforts (Howard and Johnson, 2000). Geard and colleagues (2018) found that the maintenance of a positive attitude, self-protection, and being more flexible are defined as personal resources of males living with spinal cord injury. Furthermore, Machida and colleagues (2013) pointed out that the notion of resolution, or the will to do or not do something, is an important resource for resilience in athletes who have physical disabilities. Resilience, as a personal trait, provides significant strength for an individual's desire to achieve success, and this is particularly true for individuals who are physically disabled and pursue success in sports. This sense of achievement increased their trust in their physical capabilities, and they transferred this trust to their normal lives, as well as having positive effects in different fields of their lives

This study found that the social support types employed by individuals, and those provided by the family and friends in a close environment, were important. However, it was also observed that the opportunities provided by the society and the state in which they lived were also important. In the context of social support, it was seen that the opportunities provided through the state, (e.g., benefiting from education, healthcare and other services), have important impacts on an individual's ability to recover and maintain a productive life. Framing resilience inside a social-ecological context provides a better understanding of positive developments associated with proximal processes. For example, educational accessibility enables a sense of societal belonging and participation in the processes of learning.

Other proximal processes include the process of becoming attached to a caregiver, and a range of self-reflective practices leading to positive self-appraisal (Ungar, 2013).

Keeping relational networks wide, making use of peer, family, and other community resources during difficult times is an important strategy for procuring and employing resilience within a social-ecological framework (Ungar, 2008). In a broad social support network resilience works as a positive effect that strengthens the individual to overcome difficulty. In the present study, the presence of both far and close range social supports produced protective factors as a significant source of resilience. It is thought that it is not a surprising finding that family structure unique to Turkish culture constitutes a source of resilience in terms of social support. The support received from the family and from the close environment (friends and relatives), particularly those established in the relational supportive dimension, were important sources of resilience.

Use of the social-ecological theoretical framework, allowed this study to also focus on the existence of social support as a source of resilience, thereby enabling us to evaluate the disability from a social relational perspective. Many studies show that social support is important for physically disabled athletes (Alriksson-Schmidt, Wallander, and Biasini, 2007; Fletcher and Sarkar, 2012) and individuals for strengthening resilience (Heiman, 2002; Migerode, Maes, Buysse, and Brondeel, 2012). Meanwhile, social supports, which are used in a broad context, including policies designed by the society to benefit disabled individuals, can create opportunities for individuals to both participate in and contribute to society.

Often in life, individuals must face negative and traumatic events that suddenly appear and disrupt the life balance of a person. Surviving the effects of a negative life event in a stronger manner is related closely with the use of existing or newly discovered resources in this process. Based on the evidence generated by this study, it can be concluded that physically disabled individuals who participate in athletics develop stronger forms of resilience that allows them to better deal with the effects of their traumatic experiences. However, the importance of this study lies in the fact that it represents the first Turkish scholarship to analyze the effects that sports can play, particularly for individuals who achieve success at the national and international level, on the development of resilience in adults dealing with

the traumatic effects of physical disabilities. Based on the results, participation in sports can function as, "an important way" to overcome many obstacles for individuals who have physical disabilities, both for men and women, by facilitating the acquisition of physical and social skills. Participating in sporting activities enables a range of resilience resources to be developed and brought into practice. Participation provides opportunities for meeting new people, developing social skills that strengthen social support, and it provides opportunities for new experiences. The success stories obtained here underline the presence of social and ecological inputs that provide structure and strength in the employment of resilience.

Additional results point to positive effects on physical health that include providing a regular and healthy life style, and facilitating an increase in life quality through the regulation of eating habits. Similar results were obtained in the study conducted by Machida et al., (2013). Other studies clearly showed that the experiences people have by participating in sports activities enhance life skills and life quality by strengthening their resilience (Anderson, 2009; Anderson et al., 2008; Gould et al., 2002; Graham et al., 2008; Groff et al., 2009; Jones et al., 2002; Latimer et al., 2004).

Our study has some limitations that should be considered while interpreting our findings. One of these limitations is that the sampling of the study consisted of individuals from different disability groups who were active athletes in different sport branches. Within the current model, all individuals who demonstrated a high level of resilience were treated within one generalized category, that of having suffered traumatic experience causing a physical disability in later life, and had successfully participated in sports activities. By contrast, future studies can distinguish between types of trauma situations and disability types, with the goal of understanding how these differences in individual experience may effect the availability and deployment of resilience resources. It is thought that how long individuals have been disabled may also have a role in individuals' perceptions. Thus it is thought that it is important to consider this situation in the future studies.

Furthermore, it is thought that examining the resilience sources of women and men separately for future studies will create a different point of view in interpreting the results. Importantly, the wide age range of the

sampled participants may have caused differences in interpreting the resilience resources of the individuals. To better facilitate the interpretation of results, researchers can code for individuals based on certain age limits. Similarly, interpretation of information can be enhanced by obtaining additional data about group diversification, as well as expanding methodological techniques to include the use of focus groups with athletes in the same disability group and within the same sports branch.

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