

Chapter 18

Social Support in Sport Injury and Rehabilitation

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Chapter Objectives

- To define social support and its purpose in sport injury and rehabilitation
- To describe different mechanisms, types, and sources of social support in the context of sport injury and rehabilitation
- To outline the process of using social support for sport injury rehabilitation

Introduction

Social support has been one of the most rigorously and frequently researched psychosocial resources (Thoits, 1995). The notion that people feel the need to be associated with others who provide love, warmth, social ties, and a sense of belonging has long been considered as an emotionally satisfying aspect of life. Many philosophers have discussed the social needs of people, and psychologists have postulated needs for social caring and nurture (Fromm, 1955; Litwak & Szelenyi, 1969; Maslow, 1954, 1968). Social support has also been found to mediate the stress-health link, enabling individuals to better cope with stressful events, thereby reducing the likelihood stress will lead to poor health outcomes (Sarason et al., 1997). A great deal of evidence exists regarding the availability of social support and the reduced risks of mental and physical health problems (e.g., Berkman, 1984; Cohen & Wills, 1985; Thoits, 1995).

Social support has been identified as a useful coping resource when dealing with a variety of stressors in sport such as performance pressures, relationship problems, unexpected disruption to performance routines, depression arising from unfulfilled expectations (Gould, Eklund, et al., 1993; Gould, Finch, et al., 1993). High levels of particular types of social support have been linked to the maintenance of flow states (Rees & Hardy, 2004), as well as direct and indirect reductions in the effects of stress consequently enhancing self-confidence (Rees & Freeman, 2007). Research has also demonstrated social support as beneficial to athletes when dealing with sport related burnout (Rees, 2007). Sarason et al. (1990) also proposed social support as having a direct influence on performance, a notion which has since received empirical support (Freeman & Rees, 2009; Rees & Freeman, 2010; Rees & Hardy, 2004; Rees et al., 2007).

Despite many athletes preferring to “go it alone” (Hardy et al., 1996, p. 234), research literature seems to support the importance of social support provision, particularly during “times of need” (Rees, 2007, p. 224), such as when an athlete becomes injured. Indeed, the literature on sport-related injuries

has proposed social support is an integral component of the coping process, and thus a beneficial adjunct within the rehabilitation process (Arvinen-Barrow et al., 2017; Bianco, 2001; Burland et al., 2018; Podlog & Eklund, 2007; Rotella & Heyman, 1993; Weiss & Troxel, 1986). The purpose of this chapter is to discuss how social support can be applied within the sport injury and rehabilitation context. The chapter will: (a) introduce existing concept definitions and purposes of social support within the sport injury context; (b) describe the mechanisms of social support; (c) introduce different types of social support that can be beneficial during rehabilitation; (d) discuss potential sources of social support during rehabilitation; (e) outline the process of providing social support during rehabilitation; and (f) highlight critical success factors when providing social support to athletes with injuries.

Concept Definitions and Purpose of Social Support

Within the sport context, social support has received a high level of research attention, yet there is currently little consensus with regard to defining it as a concept. Proposed definitions have included “knowing that one is loved and that others will do all they can when a problem arises” (Sarason et al., 1990, p. 119). Specifically relating to the injury context, social support has been defined as a “form of interpersonal connectedness which encourages the constructive expression of feelings, provides reassurance in times of doubt, and leads to improved communication and understanding” (Heil, 1993, p. 145). Rees (2007) also described social support as a multifaceted process in which an athlete is aided by the existence of a caring and supportive network, as well as by their perception of other people’s availability to provide help in times of need, and by the actual receipt of support. These definitions appear to capture a common theme with regard to people acting as a provider of resources when needed. In succinct terms, social support might be considered a coping resource or a social ‘fund’ from which people may draw when dealing with stressors (Thoits, 1995). Scholars have argued that the primary purpose of social support during injury rehabilitation is to afford an athlete a sense of belonging and assurance,

which might help to convey that they are not isolated in their experience of injury, and instead have a support network readily available to assist them in the rehabilitation process (Taylor & Taylor, 1997).

Mechanisms of Social Support

Social support influences injury rehabilitation by affecting an athlete's response to the injury process. According to the integrated model of psychological response to sport injury and rehabilitation process (Wiese-Bjornstal et al., 1998), social support is a situational factor affecting an injured athlete's cognitive appraisal of their injury, which in turn may influence their emotional and/or behavioral responses to the injury. Engagement (or lack of engagement) with social support has also been identified as a behavioral response to injury, which in turn can influence an athlete's cognitive appraisal and/or emotional response to the injury (Wiese-Bjornstal et al., 1998; for more details on the model, see Chapter 3).

Social support facilitates injury rehabilitation through two known mechanisms: by "buffering" athletes from harmful effects of injury related stressors, and by directly influencing the rehabilitation process without any association with stress (Mitchell et al., 2007; Rees, 2007). The stress-buffering model proposes that high levels of social support can provide a "shield," an indirect support mechanism against potential negative effects of injury. These include unrealistic or/negative cognitive appraisals (e.g., unrealistic rate of recovery expectations or decreased self-perception), undesired emotional responses (e.g., feelings of depression or frustration and poor emotional coping skills), and undesired behavioral responses (e.g., lack of rehabilitation adherence, substance abuse, and malingering), each having been found to have a negative effect on overall recovery outcomes of injury. The stress-buffering model also assumes that social support is not relevant to those who do not perceive their situation (that is, the injury) as stressful.

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The main effect model proposes that social support can directly influence an individual's response to the injury and rehabilitation process (i.e., how an individual appraises the injury situation cognitively, emotionally, and behaviorally). Having a supportive network offers the potential to increase positive affect, therefore increasing the likelihood of an athlete being more realistic about the rate of perceived recovery (cognitive appraisal), and subsequently experiencing decreased levels of frustration and a more positive attitude towards rehabilitation (emotional response), leading to the potential for enhanced treatment compliance and rehabilitation adherence (behavioral response).

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Although each model describes different causal explanations of how social support works, the two are complimentary (Bianco & Eklund, 2001). An athlete may view injury as stress inducing and, based upon the number and quality of personal (e.g., confidence) and situational factors (e.g., type/severity of injury and the rehabilitation environment), social support might help both directly and indirectly. Having assistance with everyday life chores (e.g., food preparation) might have a direct impact on athletes' responses to the injury and rehabilitation process by reducing daily hassles. Such support can also enable athletes to avoid unnecessary (and potentially harmful) physical movement, consequently directly affecting the rate of physical recovery and recovery outcomes. Having a supportive sports medicine professional to work with can help athletes to approach the rehabilitation process with a positive outlook, thus reducing the level of stress. In contrast, a lack of tangible day-to-day support might increase the stress felt by athletes. Not only is it important to understand how social support works during injury and rehabilitation but also to understand what types of social support can be beneficial to athletes during the rehabilitation and recovery process.

Types of Social Support in Sport Injury Rehabilitation

Existing literature generally considers social support as a multidimensional construct (Rees & Hardy, 2000), and there is an on-going disagreement regarding how many dimensions (or types of

support) social support might comprise (Cutrona & Russell, 1990). Based on existing research (Hardy & Grace, 1991, 1993; Pines et al., 1981; Udry, 2002), five distinct types of social support are considered beneficial during sport injury rehabilitation: (1) emotional support, (2) technical support, (3) informational support, (4) tangible support, and (5) motivational support. These can be sub-divided into esteem support, listening support, emotional support, emotional challenge support, shared social reality support, technical appreciation support, technical challenge support, personal assistance support, and material assistance support (see Table 18.1).

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Depending on the athlete and their situation, different types of social support may be appropriate for different phases of rehabilitation (for more on rehabilitation phases, see Clement & Arvinen-Barrow, 2020b; Kamphoff et al., 2013, and Chapter 1). For example, an athlete in phase I (reaction to injury) is often mostly concerned about the pain they are experiencing. The provision of listening and emotional support, and material assistance, might be most appropriate to help athletes feel comforted and cope better with injury. During phase II (reaction to rehabilitation), an athlete is more likely to benefit from emotional challenge, technical appreciation, challenge and motivational support with a goal to sustain or increase motivation, rehabilitation adherence, and/or treatment compliance. During phase III (reaction to return to play), esteem support, and different forms of technical and informational support, can help an athlete feel more confident in their ability to return to participation and address anxiety related concerns.

Sources of Social Support in Sport Injury Rehabilitation

Depending on personal and situational factors, the type of social support an athlete needs and prefers may vary greatly. While it is important to understand the various types of support that might be beneficial to meet the needs of an athlete with injuries, it is also important to consider potential sources of social support.

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During sport injury rehabilitation, athletes often interact with many individuals who might become a source of social support. These could be immediate family members, significant others, friends, sport team members (e.g., coaches, teammates), sports medicine professionals (SMPs), sport psychology professionals (SPPs), and other community members (Arvinen-Barrow et al., 2019; Caron et al., 2021; Clement & Arvinen-Barrow, 2020a; Essery et al., 2017; Iñigo et al., 2015; Ruddock-Hudson et al., 2014; Tjong et al., 2015; Yang et al., 2014). Depending on the role each have during rehabilitation, together they will form the foundation for the interprofessional care team for the athlete during rehabilitation (for more details, see Chapter 7) in the hope of ensuring a fast, yet appropriate, return to pre-injury (or higher) levels of fitness and performance.

Family, Friends, and Significant Others

According to Taylor and Taylor (1997), family and friends are best suited to provide emotional and listening support, as well as support in the form of emotional challenge and shared social reality (cf. Clement & Arvinen-Barrow, 2020a). Clement et al. (2015) and Ruddock-Hudson et al. (2014) noted family and significant others comfort athletes with social support throughout each stage of the rehabilitation process. Amongst professional rugby players, parents were also found to provide listening support and emotional challenge support, to help players regain emotional control during difficult periods (Carson & Polman, 2008). Similarly Arvinen-Barrow et al. (2014) found that, amongst professional football and rugby players, families were seen as essential sources of emotional and motivational support. When an injury results in major physical limitations, role of family as a form of tangible support (e.g., transportation to rehabilitation appointments) has also been found to be prominent (Arvinen-Barrow et al., 2019; Arvinen-Barrow et al., 2017; Arvinen-Barrow et al., 2014; Podlog et al., 2013). At times, family and friends have been found to pressure athletes to return to participation, sometimes too soon (Podlog et al., 2013).

Family and friends should therefore be encouraged to provide social support but cautioned from pressuring athletes to return to participation too quickly.

Sport Team Members

Some scholars have suggested teammates and coaches as being well positioned to provide athletes with support in the form of technical appreciation, technical challenge, and shared social reality (Clement & Arvinen-Barrow, 2020a; Taylor & Taylor, 1997). Research has demonstrated teammates are also a source of inspiration (Carson & Polman, 2008) and motivational support (Arvinen-Barrow et al., 2014). Coaches can encourage athletes to practice their prescribed rehabilitation exercises (Podlog et al., 2013) and offer various other forms of emotional support (Caron et al., 2021; Ruddock-Hudson et al., 2014). Professional coaches themselves also view the provision of social support as an important part of their role by providing emotional, material, and informational support (Podlog & Eklund, 2007).

Some athletes report not receiving appropriate social support from sport team members. Arvinen-Barrow et al. (2019), for example, found some coaches questioned the severity of the professional male cricket players' injuries. Tjong et al. (2015) found lack of support from teammates and coaches discouraged some athletes who had undergone arthroscopic shoulder stabilization from returning to sport. Others also have suggested social support from coaches sometimes diminishes throughout the rehabilitation process (Ruddock-Hudson et al., 2014). Research has also highlighted disparities in how social support provision is perceived to be provided and received. Caron et al. (2021) found that coaches and teammates believed they provided the appropriate amount of social support, but athletes with injuries may have perceived a lack of emotional and esteem support from sport team members. Therefore, there is a need for sport team members to be intentional when providing social support throughout the injury rehabilitation process to ensure positive rehabilitation outcomes.

Sports Medicine Team Members

Much research suggests SMPs are well positioned to provide all types of social support due to their close relationship with athletes during injury rehabilitation. For example, Bianco (2001) found SMPs as best suited to provide various types of emotional, informational, and tangible support (cf. Clement & Arvinen-Barrow, 2020a). Amongst professional rugby and association football players, those working with athletes on a daily basis were seen as important sources of emotional, informational, and motivational support (Arvinen-Barrow et al., 2014). The SMPs for example, can provide listening support by allowing athletes to vent about their feelings and shared social reality support by relating to athletes' injury experiences (Arvinen-Barrow et al., 2017; Clement et al., 2015). The SMPs are an important source of informational support, enhancing understanding of the injury and the rehabilitation process (Carson & Polman, 2008; Rock & Jones, 2002), and to educate and address misconceptions and doubts about injuries and rehabilitation (Essery et al., 2017; Podlog et al., 2013). Existing evidence also shows that not always does social support provided by SMPs meet the athletes perceived need, and that this can have a negative impact on the injury and rehabilitation experience (Arvinen-Barrow et al., 2019).

Sport Psychology Professionals

The SMPs are also in an ideal position to help athletes to expand their social network, thereby increasing their amount of social support resources (Arvinen-Barrow et al., 2010). They may provide injured athletes with contacts to other injured athletes or with various other healthcare professionals. Other professionals might also be important sources of social support. Evans et al. (2000) found that when setbacks occurred during rehabilitation, the use of a SPP was particularly important. A SPP can provide various forms of emotional support by letting injured athletes speak about, and reflect upon on the injury and rehabilitation experience, subsequently helping them manage their thoughts, emotions, and behavior (Arvinen-Barrow et al., 2017).

The Process of Using Social Support for Rehabilitation

Little research has examined how best to implement social support effectively within an injury context (Rees & Hardy, 2004), but appears that it is provided in a number of ways (Freeman et al., 2011). Differing social support needs of athletes with injuries should be met through corresponding types of support (Rees, 2007), provided at the right time and the right level for effectiveness (Sarason et al., 1990; Udry, 2001). This is supported by Richman et al. (1989) who proposed that social support (a) is best provided by a network of individuals, (b) needs to be developed and nurtured, and (c) works best as part of an ongoing program rather than when employed purely as a reaction to a crisis.

One of the ways social support can be provided is via peer modelling, which Kolt (2004) describes as the process of pairing an athlete with injuries with a recovered (or nearly recovered) athlete who has undergone a similar rehabilitation process. Support for peer modelling has been found in research conducted with athletic trainers (Wiese et al., 1991) and injured athletes in the form of “buddy systems” (Walker, 2006). Other athletes with similar previous injury experiences have also been found to provide shared social reality support for male professional Irish rugby football players who sustained career-ending injuries (Arvinen-Barrow et al., 2017).

Another way to introduce social support is via injury support groups (Wiese et al., 1991) or performance enhancement groups (Clement et al., 2011). Often used with athletes undergoing lengthy rehabilitation, support groups can facilitate the establishment of important networks with other athletes and offer opportunities to discuss injury and rehabilitation experiences. Support groups have also been found to facilitate motivation (Weiss & Troxel, 1986), which can be a major factor in reaching full recovery. Being part of a performance enhancement group can also teach athletes important psychological skills to help them cope with the distress caused by injury (Clement et al., 2011). Since social support as a concept considers many social networks as potential sources of support, athletes with injuries have individual preferences for what sources they consider beneficial, it is likely that peer modelling and injury support groups may not suit all. An alternative approach is one-on-one intervention

(Freeman & Rees, 2009), often resembling a typical counselling relationship, whereby the effectiveness of the social support intervention is highly dependent on the nature of the working-alliance between the athlete and the support provider.

Critical Success Factors

In addition to considering the potential types, sources, processes, and mechanisms in which social support is best provided, those involved in social support provision should also consider: (a) the characteristics of the support provider, (b) the concept of perceived versus received support, and (c) the negative effects of social support.

Characteristics of the Support Provider

Literature seems to suggest that individuals providing social support should possess certain intra- and interpersonal characteristics, skills, and techniques in order for social support provision to be effective. A person providing social support should be a good listener, have the ability to identify personal and gender differences in athletes receiving support, and be able to acknowledge both effort and mastery. With the help from systematic goal setting, the person should also be able to balance the use of technical appreciation and technical challenge, possess awareness of social support as being the most necessary yet least available technique in relation to injury requiring surgery and lengthy rehabilitation, and to be able to identify correct social support interventions for individual athletes (see for example, Everhart et al., 2015; Heil, 1993; Lisee et al., 2020; Rees, 2007; Richman et al., 1989; Udry, 2001)

The Concept of Perceived Versus Received Support

An important critical success factor for social support is to differentiate between perceived and received support. The effectiveness of a support network is not necessarily associated with just the number of support providers available (Sarason et al., 1990; Thoits, 1995) but is related to the extent to which various individuals recognize the need to provide support and are willing and able to provide support when necessary (Bianco, 2001). There are likely to be differences in the type of support athletes

require, expect to receive, and actually receive, resulting in variations in support needs. This is also dependent upon the support provider and their role in the injured athlete's life, as well as the actual stage of rehabilitation (Caron et al., 2021)(Bianco, 2001; Clement & Arvinen-Barrow, 2020b; Handegard et al., 2006). The timing of the support, injury type, and injury severity can also influence an athlete's perception of required, provided, and received social support (Taylor & Taylor, 1997). Some scholars have suggested gender differences in perceptions and use of social support; female athletes have been perceived as having more emotional support available from their networks than male athletes (Hardy & Grace, 1991; Mitchell et al., 2007; Rock & Jones, 2002). Understanding the differences between perceived and received support is important as it can influence cognitive appraisals and facilitate the development and use of effective coping skills. Increases in social integration, network size, and frequency of contact with others in the network are also associated with increases in positive outcomes (Rees, 2007). These positive outcomes of social support might be a result of an athlete simply being part of a network, leading to enhanced self-concept, self-worth, and personal control.

Negative Effects of Social Support

Although social support generally appears to have a positive influence on sport injury and rehabilitation, if provided insufficiently and inappropriately, it can have a negative effect on the athlete's overall health and well-being. Insufficient rehabilitation guidance, lack of sensitivity to the injury, and lack of concern from those surrounding the athlete have been perceived negatively by athletes with injuries (Arvinen-Barrow et al., 2019; Arvinen-Barrow et al., 2017; Udry et al., 1997) and can be detrimental to the overall recovery process. If the provider is not adequately skilled to provide the support needed or, is not aware of their role as a source of social support, this can also have a negative effect on the athlete and the overall rehabilitation. Those involved with athletes during injury and rehabilitation should be (a) aware of their possible role as a source of social support, (b) acknowledge their own competencies and

limitations as potential providers of social support, and (c) possess an understanding of when and when not to provide support.

Recent Research on Social Support and Injuries

Over the past decade, research knowledge on the use of social support as a psychological intervention in response to injury and rehabilitation has highlighted number of psychosocial, biological, and physiological benefits of social support. It has also focused on the impact satisfaction/lack of satisfaction with social support has on the athlete, and identified some gender differences in how social support is perceived and provided.

Psychosocial Benefits of Social Support

A systematic review revealed that positive social support from family, friends, significant others, sport team members, and SMPs is a facilitator for numerous rehabilitation related behaviors. These include increased exercise *adherence* among injured adults (Essery et al., 2017) and older adults after following a total knee arthroplasty (Bakaa et al., 2022), increased *compliance* with treatment (Everhart et al., 2015) and *rehabilitation commitment* (Podlog et al., 2013), increased *motivation* to return to participation following arthroscopic shoulder stabilization (Tjong et al., 2015) and *commitment* to return to sport (Iñigo et al., 2015).

Some of the cognitive-affective benefits of social support include more *positive outlook* on injury among adolescent Australian athletes (Podlog et al., 2013), professional Australian football players (Ruddock-Hudson et al., 2014), and previously injured athletes in the United States (Clement et al., 2015). University basketball coaches also believed social support to increase *confidence* among injured athletes (Van Woezik et al., 2020) and athletes who had had anterior cruciate ligament reconstruction surgery and returned to participation (Burland et al., 2018). Social support has also been found to increase *coping with injury* (Burland et al., 2018), *coping with anxiety* (Tjong et al., 2015), and decrease *fear of re-injury* (Burland et al., 2019; Tjong et al., 2015). Additional psychosocial benefits for athletes with injuries include

decrease in *restlessness* and *feelings of isolation* (Mitchell et al., 2014), protect from *identity loss* following an injury (Von Rosen et al., 2018), boost *overall well-being* and *rehabilitation beliefs* (Lu & Hsu, 2013), and facilitate *successful transitions out of sport* among professional male cricket, rugby, and ice hockey players with career-ending injuries (Arvinen-Barrow et al., 2019; Arvinen-Barrow et al., 2017; Arvinen-Barrow et al., 2015).

Biological and Physiological Benefits of Social Support

While not commonly researched within sport injury, social support has also been found to decrease *pain severity* and *interference* (i.e., impact on daily functioning) following a total knee arthroplasty (Edwards et al., 2022). A scoping review of research examining social factors in recovery after hip fractures showed that social support improved physical functioning and decreased risk of mortality following surgery (Auais et al., 2019).

(Lack of) Satisfaction with Social Support

Satisfaction with social support from SMPs has also been found to decrease symptoms of anxiety and depression among injured collegiate athletes (Yang et al., 2014). The same research also found that of the athletes who did receive social support, approximately 50% felt that their SMP made them feel better when upset, and 20% of the sample did not receive social support at all. Recent research has also highlighted that not always do family members, friends, sport team members, and SMPs provide appropriate social support. For example, some Australian adolescent athletes with severe injuries reported feeling pressured to return to participation by family and friends (Podlog et al., 2013).

Other athletes have reported perceived lack of social support from their social networks (Arvinen-Barrow et al., 2017; Burland et al., 2018; Tjong et al., 2015), and Caron et al. (2021) have identified differential perceptions of social support provision among athletes with injuries, their teammates, and coaches. While coaches and teammates perceived providing sufficient support, the athletes perceived it to be insufficient for emotional and esteem support. Research has also highlighted some gender differences in

social support needs. Lisee et al. (2020) found that following an anterior cruciate ligament reconstruction, female athletes may have higher social support needs than male athletes. In fact, male athletes in this research reported team involvement throughout the recovery process worsened their experience with injury rehabilitation.

Conclusion

Despite the lack of a distinct definition of social support, of all the psychological interventions available, social support appears to be one of the most used psychosocial strategies during sport injury rehabilitation. Athletes with injuries appear to benefit from a range of different types of social support, provided by a number of individuals they typically interact with on a day-to-day basis. This chapter has provided details of the mechanisms underlying the concept of social support, the different types and sources of social support that might be beneficial during rehabilitation, and discussed the range of potential sources of social support available during rehabilitation. Moreover, the chapter has outlined the process of utilizing social support during rehabilitation and highlighted critical success factors when implementing social support to sport injury and rehabilitation.

Case Study

Ethan is a 16-year-old high school baseball player. He lives with his parents and has two older sisters who both played collegiate basketball. Ethan's parents go to as many of his games as they can, and are actively involved in his sport. Ethan's dad often compares Ethan to his sisters, they both were star players during high school and college and it is obvious that Ethan's dad expects the same for him.

About five months ago, Ethan tore his anterior cruciate ligament (ACL) while playing basketball with his friends. He underwent ACL reconstruction surgery, which went well. Ethan's orthopedic surgeon and athletic trainer (AT) think it will be another four months before Ethan is fully fit to play again. Ethan's dad is not convinced of this timeline. With the baseball pre-season just around the corner, Ethan's dad thinks Ethan should "double his rehabilitation exercises, start running and jumping to help strengthen his leg." Ethan disagrees: "dad that's not what the surgeon or my AT says. Besides, remember what happened to Trey?" "Trey who?" says Ethan's dad.

Ethan responds to his dad with frustration: “you don’t remember dad? Tray is a junior in my team; he had an ACL reconstruction last year. He came back too baseball six months post-surgery and got re-injured almost immediately. I don’t want that to happen to me. I’m worried it will, if I return back too early.” “Nonsense”, says Ethan’s dad. “If you stick with the regimen I suggest, you can return to baseball in time for the regular season to begin.”

Ethan felt unheard and confides to his AT about the pressure his dad puts on him to return to sport. Ethan also recently told his AT that he is bisexual but has not told his parents or sisters, as he is afraid his dad will be disappointed in him. Ethan said, “I’m already not good enough at baseball. And now I’m injured too. And I like boys and girls. Not wanting to follow his plan for my rehab will just be another reason for my dad to hate me.”

Questions

1. Considering the mechanisms of social support, which (stress-buffering or direct) is likely to be effective for Ethan’s rehabilitation and return to participation process?
2. What social support types are likely to be beneficial for Ethan and why?
3. Who might be best suited to provide Ethan with the different types of social support and why?
4. What factors do you think are important to consider for social support effectiveness?

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