



## Literature Review

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## 1.0 Introduction

This literature review is part of the Erasmus Plus funded ParaCoach project which aims to enhance Para coaches learning, mobility and employability across the European Union.

Sport has been recognised as complex and multifaceted, but it has been argued that Parasport is even more intricate, (Depauw, 1986) particularly with reference to coach learning, practice and education (Duarte and Culver, 2014). Coaches are a crucial part of sporting experience (MacDonald Beck, Erickson and Cote, 2016; Townsend and Cushion, 2017) with sport coaching seen to be socially constructed, embedded within wider social and cultural contexts and norms (Cooper and Allen, 2018).

This review will highlight and explore a number of topics related to the context of and coaching within Parasport, as well as coach learning and Para athletes (See 2.0 for more details)

It is important to provide clarity in relation to Para sport literature, therefore this review will provide a snapshot of current knowledge and implications for practice, relating to coaches, coach educators, governing bodies, sport organisations and policy makers.

## 2.0 Literature Review Format and Content

The literature review will be presented in table format. There are four sections, each with a varying number of topics within. Each section and corresponding topics are introduced with an overview of content to be covered and why understanding the topic is important and should be valued. Each section is presented in a table consisting of:

- Key Principles
- Supporting literature (explaining and providing evidence for the key principles)
- Implications for practice, coaches and policy makers

Refer to table 1 below for an overview of the content that will be covered within this literature review.

Section Title	Content / topics
Context of Parasport	<ul style="list-style-type: none"><li>• Research</li><li>• Social-political-cultural influences and policies</li><li>• Models of disability</li><li>• Barriers faced by para athletes</li></ul>
Coaching in Para Sport	<ul style="list-style-type: none"><li>• Blended Profession</li><li>• Coaching Philosophy</li><li>• Role of the Coach</li><li>• Coaching practice</li></ul>
Coach Learning	<ul style="list-style-type: none"><li>• Construction of Learning to Coach in Para Sport Literature</li><li>• Learning in Practice</li><li>• Coach Education</li></ul>
Para Athletes	<ul style="list-style-type: none"><li>• Athlete Development</li><li>• Benefits to participation</li><li>• Classification</li></ul>

Table 1. Topics covered within the literature review

### 3.0 Executive Summary

The following executive summary will highlight the key findings and implications for practice explored within the literature review.

#### 3.1 Context of Parasport

<b>Research</b>	
<b>Key Findings</b>	<b>Key Implications for Practice</b>
Overall there is a lack of research into para sport, much of the research that has been carried out has been coach centric or focussed on the high performance context of para sport.	<ul style="list-style-type: none"> <li>Lack of evidence based and informed understanding of para sport.</li> <li>Difficult to identify patterns and norms of coaching practice in the para sport context.</li> </ul>
<b>Social-political-cultural Influences and Policies</b>	
<b>Key Findings</b>	<b>Key Implications for Practice</b>
Sport can be seen as a vehicle for positive change, however it is a reflection of our culture and society meaning negative stigma attached to impairment and disability are often reflected in the sporting world.	<ul style="list-style-type: none"> <li>Sport could be used to develop wider cultural and societal understanding of impairments and disability.</li> </ul>
There is a number of policies that aim to support and promote equality for people with an impairment. Despite this, there is still a large number of those people, that feel they do not have the same opportunities as those without an impairment.	<ul style="list-style-type: none"> <li>Coaches and sporting organisations and legal and moral obligation to provide opportunities for people with an impairment/s.</li> </ul>
<b>Models of Disability</b>	
<b>Key Findings</b>	<b>Key Implications for Practice</b>
There are a number of models: medical, social, social relational and human rights.	
The medical model originates from medicine discourse. Impairment is simplified to biological limitations.	<ul style="list-style-type: none"> <li>Impairment is viewed through a reductionist lens, meaning athletes experiences aren't accounted for and are to seen to be define by their impairment.</li> </ul>
The social model highlights disability as socially constructed meaning those with an impairment have barriers imposed upon them by society.	<ul style="list-style-type: none"> <li>Coaches may disregard impairment effect which may have negative implications for their athletes.</li> </ul>
The social relational model recognises the social construction of disability but also acknowledges impairment and the impact I can have on individuals.	<ul style="list-style-type: none"> <li>Coaches should be aware that they can adapt their practice in order to meet their athletes' needs.</li> </ul>
The human rights model highlights the equality needed between those with and without an impairment.	<ul style="list-style-type: none"> <li>Coaches should be educated as to how they can provide equal opportunities.</li> </ul>
<b>Barriers faced by Para Athletes</b>	
<b>Key Findings</b>	<b>Key Implications for Practice</b>
The most common barriers faced by athletes include, lack of provision, coaches have a lack of knowledge, transport issues, stigma around impairment and disability, accessibility and the need for specialist equipment.	<ul style="list-style-type: none"> <li>It is often harder for people with an impairment to participate in sport due to the barriers present. Therefore, coaches and governing bodies should make a conscious effort to reduce these barriers.</li> </ul>

### 3.2 Coaching in Para Sport

Blended Profession	
Key Findings	Key Implications for Practice
Para sport coaching is a blended profession in that entry into to coaching is typically through connections and employment status is varied (full-time, part-time, paid, voluntary).	<ul style="list-style-type: none"> <li>Coaches have no clear pathway guiding there development, which could also make it harder to attract new coaches</li> <li>Time constraints due to other commitments (for voluntary/part-time coaches) may result in coaches not being able to develop specific sporting knowledge</li> </ul>
Coaching Philosophy	
Key Findings	Key Implications for Practice
Coaching philosophy is contested within the literature. Literature within the context of para sport has highlighted the importance of coaches developing philosophies relating to empowerment and autonomy.	<ul style="list-style-type: none"> <li>A coaches philosophy should be reflected in their practice and should out athletes best interests at the forefront.</li> <li>Coaches should consider how they can aid an athletes development outside of the sporting context.</li> </ul>
Role of the Coach	
Key Findings	Key Implications for Practice
The role of a para sport coach is extremely complex and multifaceted – often <i>more than just a coach</i> .	<ul style="list-style-type: none"> <li>Coaches should be aware of the extra responsibilities they may undertake coaching in this context.</li> </ul>
Coaching Practice	
Key Findings	Key Implications for Practice
There are similarities between para and mainstream sporting context, yet there are a number of differences (e.g. the need for impairment specific knowledge), often requiring coaches to be more creative and adaptable than in mainstream contexts.	<ul style="list-style-type: none"> <li>Coaches should communicate with their athletes to understand their needs and how they can best be supported.</li> <li>Practice should be</li> </ul>

### 3.3 Coach Learning

Construction of Learning to Coach in Para Sport Literature	
Key Findings	Key Implications for Practice
Literature discussing coach learning in para sport has drawn upon a number of learning theories and mechanisms.	
Learning situations (formal, non-formal and informal). Coaches explained the lack of formal education resulted in them learning through formal and non-formal means.	<ul style="list-style-type: none"> <li>Which method works best is dependant upon individual coaches.</li> </ul>
Actual and ideal sources of knowledge refers to the current means through which coaches are learning and how they desire to learn. Ideal sources of knowledge are not always available to the coaches.	<ul style="list-style-type: none"> <li>As ideal sources are not always readily available, it could result in coaches not obtaining the knowledge they feel is necessary which could have a negative impact on their development and on their athletes.</li> </ul>

A coaches biography is a major influence on their learning but it is also linked to learning situations and cultural and contextual influences.	<ul style="list-style-type: none"> <li>Coaches should identify whether their experiences have had a negative or positive impact on their learning.</li> <li>Coaches should also consider external influences on their learning and knowledge development.</li> </ul>
<b>Learning in Practice</b>	
<b>Key Findings</b>	<b>Key Implications for Practice</b>
There are numerous methods through which coaches learn and develop their practice. The most commonly explored within literature include: learning from other coaches, athletes or mentors, athletic experience and learning through practice.	<ul style="list-style-type: none"> <li>Reproduction of knowledge and no new knowledge being produced.</li> <li>It could result in gaps in knowledge for coaches as there are no guidelines or curricula to follow.</li> </ul>
<b>Coach Education</b>	
<b>Key Findings</b>	<b>Key Implications for Practice</b>
There is a lack of formal education for coaches of para sport.	<ul style="list-style-type: none"> <li>Coaches have been forced to develop their knowledge through other means, that may not be evidence based or informed by research.</li> <li>Coaches with insufficient knowledge can be seen as a barrier to athletes.</li> </ul>
There is a need and demand for formal coach education.	<ul style="list-style-type: none"> <li>Availability of formal coach education could lead to more effective coaches due to an increase in knowledge, as well as an increase in the workforce.</li> </ul>

### 3.4 Para Athletes

<b>Athlete Development</b>	
<b>Key Findings</b>	<b>Key Implications for Practice</b>
Psychosocial outcomes as a result of sport participation can vary depending upon the age of athletes and level of participation (school, community or performance). They can be negative or positive.	<ul style="list-style-type: none"> <li>Coaches should be aware of the differences that age and context can have on psychosocial outcomes and be mindful that participants will develop differently.</li> <li>Coaches should make a conscious effort to reduce any negative psychosocial outcomes that may occur as a result of sports participation.</li> </ul>
<b>Benefits of Participation</b>	
<b>Key Findings</b>	<b>Key Implications for Practice</b>
There are numerous benefits to participating in sport. In relation to para athletes, the following are most commonly stated in the literature: development of life skills, social skills, increased confidence and self-esteem, gaining independence and a sense of achievement.	<ul style="list-style-type: none"> <li>Coaches should promote a training environment that promotes and fosters these benefits.</li> </ul>
<b>Classification</b>	
<b>Key Findings</b>	<b>Key Implications for Practice</b>

Classification allows athletes with an impairment to compete on a more equal basis through the use of sport classes. Classification follows a process that is sport specific.

- Coaches must be aware and have some understanding of how their sport classifies athletes.
- Coaches should be aware of impairment effect.

## 4.0 Literature Review Table

### 4.1 Context of Para Sport

This section will introduce the context of para sport by discussing a number of topics that influence and have an impact on this multifaceted environment. This comprises of the following topics: research within para sport and coaching, social, political, including policies, cultural influences, statistics on disability, the models of disability and barriers faced by para athletes.

4.1.1 Research		
Research refers to the current literature within the para sport context. However, Para sport is largely under-researched. Research is key to developing a deeper understanding of Para sport and without it, coaches, athletes, academics, policy makers and practice remains under informed.		
Key Principles	Supporting Literature	Implications
Overall there is a lack of research surrounding coaching in disability sport	<p>DePauw and Gavron (1991) first highlighted, almost 30 years ago, the lack of research surrounding coaches within disability sport, yet this is still an issue in the present day (Cronin, Ryrie, Huntley and Hayton, 2018; Townsend, Cushion and Smith, 2018).</p> <p>However, specific topics that have been highlighted by academics include cohesion for disabled athletes (Falcão, Bloom and Loughhead, 2015), motivations of elite athletes with a physical disability (Banack, Sabiston and Bloom, 2011), roles of a coach (Tawse, Bloom, Sabiston and Reid, 2012) and coaching science, specifically psychology (Banack et al, 2011).</p> <p>A number of academics have suggested that the lack of research is reflected in the lack of education and resources available for coaches in disability sport (Taylor, Werthner and Culver, 2014; Townsend et al, 2018).</p>	<p>A lack of research results in a less evidence-based understanding of coaching within disability sport. This could leave coaches to guess what is effective and ineffective.</p> <p>It may leave policy makers and those responsible for change not fully informed and the lack of research means a lack of evidence to support certain policies and procedures.</p> <p>A lack of research could also result in a lack of understanding of the disability sporting context for outsiders, only further enhancing the divide between able-bodied and disabled sport, and wider society.</p> <p>It makes it difficult to identify patterns and norms in coaching practice.</p>



		<p>Lack of education, development provision and resources results in coaches being forced to acquire knowledge elsewhere and develop their practice with little empirical evidence to support them. This means coaches may be cherry picking what information they believe is effective for them.</p>
<p>Of the research that is available, there has been a focus on the high performance context</p>	<p>The majority of research available in parasport focused on the high performance context, therefore community environments (Cronin et al, 2018) are often overlooked.</p> <p>In this instance, high performance encompasses studies where participants are at elite, Paralympic or national team level.</p> <p>A number of studies have been conducted within Paralympic sport, these focus for example on coach learning and development (Fairhurst, Bloom and Harvey, 2017; Douglas, Falcão and Bloom 2018), coaches perceptions of team cohesion (Falcão, Bloom and Loughhead, 2015) cultural and political influences on coaching (Bush and Silk, 2012),</p> <p>Studies surrounding elite and national level participants include researching coaching role (Tawse, Bloom, Sabiston and Reid, 2012), preconceptions of coaching athletes with a disability (Wareham, Burkett, Innes and Lovell, 2017) and the social construction of disability (Townsend, Huntley, Cushion and Fitzgerald, 2018).</p>	<p>Research conducted across high performance contexts, will often not be applicable to coaches within a community or recreational setting.</p> <p>More research should be conducted into para sport setting outside of the high performance context in order to develop a better picture of the overall landscape and to identify how coaches and athletes can be effectively supported.</p>

<p>Much of the research is coach centric, capturing only a snapshot of the coaching process</p>	<p>Research has often been solely focussed on the coach, therefore disregarding sociocultural influences on learning and developing knowledge (Townsend, Cushion and Smith, 2018).</p> <p>Furthermore, much of the research disregards the athlete’s voice (Townsend et al, 2018) which could be considered problematic as they are a key part of the coaching process (Lyle and Cushion, 2016).</p>	<p>A lack of awareness for amongst coaches of what can have an impact on their learning and how.</p> <p>Coaches cannot use literature and research to explore athletes’ experiences and opinions and inform their practice as they have not been explored within literature.</p>
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<p><b>4.1.2 Social-political-cultural Influences and Policies</b>  The following section explores a number of policies, implemented by the European Union and the United Nations, that exist in relation to how persons with a disability should be treated in society. The landscape of disability and disability sport is examined through the use of statistics and figures. Furthermore, the cultural social influences are examined from both negative (e.g. stigma) and positive (e.g. the impact of the Paralympic games) perspectives.</p>		
<b>Key Principles</b>	<b>Supporting Literature</b>	<b>Implications</b>
<p>Policy - UN Convention of Human Rights</p>	<p>“To promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity” (United Nations, 2006)</p> <p>Article 30: Participation in Cultural Life, Recreation, Leisure and Sport. This article highlights that those with an impairment should have an equal opportunity to participate in sport, to be</p>	<p>Coaches should be aware of the social, political and cultural influences surrounding disability and disability sport.</p> <p>There is a legal and moral obligation to provide effective and appropriate sporting opportunities to persons with an impairment.</p>

	treated equally to non-disabled participants, have access to venues and the provision of appropriate instruction equal to that available in a mainstream setting.	Coaches should provide equal opportunities for both those with and without an impairment.
Policy - European Disability Strategy 2010-2020	“Aims to promote a barrier-free Europe and at empower people with disabilities so that they can enjoy their rights and participate fully in society and economy”. (European Union)	Athletes with or without a disability should have the opportunity to participate in competitive sport (Bundon and Clarke, 2015).
Policy - European Accessibility Act	“directive that aims to improve the functioning of the internal market for accessible products and services, by removing barrier created by divergent rules in Member States”. (European Union)	National Governing Bodies therefore have a responsibility to ensure their sport is inclusive and accessible to all.  Education should be provided for coaches in disability sport so that the same high quality sporting opportunities are available as in able-bodied sport.
The landscape of disability and disability sport in statistics	In the EU, around one-fifth of the population have a disability (European Union, 2020), whilst, roughly 15% of the worldwide population have a disability (World Health Organization).  Sport England conducted a survey in 2018, publishing a report the following year. Here are some of their findings: <ul style="list-style-type: none"> <li>• 21% of the population have a limiting disability</li> <li>• 13% of adults who volunteer in sport have a disability</li> <li>• 41% of people with a disability (or long term health condition) are inactive</li> <li>• 31% of people with one impairment are inactive</li> <li>• Out of those with three or more impairments, 49% are inactive</li> <li>• 38% of those with two or more impairments are inactive (this figure decreased 2.1% compared to 2017/18)</li> </ul>	It is surprising that there is still a lack of sporting opportunities available for those with a disability. Governing bodies and policy makers should consider how sport can be made more accessible to this large proportion of the population.  Coaches should consider how they can encourage those with an impairment and are inactive, to participate in sport or physical activity. (For example, Is their session accessible? Do they have the knowledge to make adaptations to their practice or sport to suit the needs of individuals with varying impairments?)  If opportunities for those with an impairment to participate in sport or physical activity do not

	<p>Activity Alliance (2020), (previously English Federation of Disability Sport), surveyed 1,182 adults with a disability and 1,136 non-disabled adults. Here are some of their results:</p> <ul style="list-style-type: none"> <li>• 81% of participants with a disability stated their impairment has an effect on their participation in physical activity</li> <li>• 81% also stated they would like to increase the amount of physical activity that they do</li> <li>• Only 40% of participants with a disability believe they have opportunities to be as active as they wish</li> <li>• 18% of participants with a disability, stated that there was a dearth of opportunities available to them</li> <li>• Only 24% of those with an impairment had participated in an organised activity session over the past 12 months</li> </ul>	<p>progress, then figures on inactivity may not improve.</p> <p>Coaches should recognise how impairment can impact athletes' participation in sport and work to accommodate for this and adapt practice in order to give participants the best experience.</p> <p>The majority of those included in the Activity Alliance Survey, stated that they wanted to increase the amount of physical activity they do. Therefore, it is important that this is recognised by NGBs, policymakers, sports clubs and individual coaches and that they make a valiant effort to meet the needs of this group and provide them with appropriate opportunities of participation.</p>
<p>Culture and society in within the disability sporting context</p>	<p>Sport is a reflection of our culture and society (Williams, 1994; DePauw, 1997). Harada and Siperstein (2009) stated that sport provides a social and cultural link amongst people from a wide variety of backgrounds.</p> <p>DePauw (1997) highlighted the importance of sport within culture and society as it reflects "the dominant values, norms and standards of a given society" (DePauw, 1997, p. 418).</p> <p>It has been noted that there are certain barriers created by society that prevent those with an impairment having equal opportunities to the rest of the population (Oliver and Barnes 2010).</p> <p>Fitzgerald (2005) highlights "we live in a society that places differing values on bodies" (p. 44). This shows that members of</p>	<p>Sport is an important part of society and everyday life. Often coaches are a vital part of sporting activity and so it is important they value their roles and responsibilities.</p> <p>It is imperative that coaches consider the cultural and social influences on their sport and therefore the impact it may have on their athletes and practice.</p> <p>Coaches should make an effort to prevent traditional negative social and culture discourse influence their coaching practice. This can be a challenge, where for coaches it is implicit.</p>

	<p>society still place judgement on those with an impairment resulting in exclusion from the sporting world and wider everyday activities.</p> <p>Wareham, Burkett, Innes and Lovell, (2017) have highlighted that there is still a stigma attached to disability and disability sport along with negative perceptions and attitudes in general surrounding disability (Robbins, Houston and Dummer, 2010).</p> <p>Another issue faced by athletes with an impairment, is that they are seen to be less capable compared to able-bodied athletes, which often sees them admired for something usually seen as trivial or easily achieved by an athlete without an impairment (Robbins et al, 2010). This reflects ableism in society.</p>	<p>Policy makers and event organisers should consider the input of the disabled population when planning for them as often it is able-bodied people who make decisions that ultimately affect people with a disability (Braye, Dixon and Gibbons, 2015).</p>
<p>Sport has been recognised as a vehicle for societal change related to disability</p>	<p>Not only is sport used by policy makers as vehicle to tackle issues related to health and exclusion, to name a few, (Hassan and Lynch, 2014), but Bundon and Clarke (2015) highlighted that sport can be used to promote societal changes with Sherry, Schulenkorf and Chaplin (2015) stating that sport can have a positive impact upon society.</p> <p>Purdue and Howe (2012) highlight that disability sport can be used to aid society's understanding of disability.</p> <p>Sociocultural norms and perceptions of disability can be changed through sport (Townsend, Huntley, Cushion and Fitzgerald, 2018).</p> <p>Often, athletes with a disability will campaign for social change, both within and outside of the context of sport (Bundon and Clarke, 2015), yet when they campaign solely for change within sport the face negative backlash.</p>	<p>Perceptions of disability, disability sport and athletes with a disability could be challenged in a positive light.</p> <p>Wider cultural understanding of disability could be improved through the use of sport.</p> <p>It is notable that Paralympian's are often still undervalued in comparison to Olympians.</p>

	<p>In relation to social change, the impact of the Paralympic Games has been considered (Misener, Darcy, Legg and Gilbert, 2013; Ferrara, Burns and Mills, 2015). Gold and Gold (2007) highlighted that the Paralympics have altered attitudes toward those with an impairment as the focus is on athletes achievements not their impairment.</p> <p>Activity Alliance (previously English Federation for Disability Sport), conducted a survey following the London 2012 games, results from which were used to compile a report. The report states that the games overall resulted in a positive change to people perceptions of those with an impairment in sport. They suggested from their findings that the most valuable change to arise from the Paralympics was the awareness of the abilities those with an impairment possess.</p> <p>Coates and Vickerman (2016) highlighted that children with a disability, in particular benefit from the Paralympic Games. This is due to them being able to relate to the athletes, recognising that they too have impairments yet have become successful, allowing children to be more positive about their disability (Coates and Vickerman, 2016).</p> <p>Despite the benefits that arise from the Paralympics, athletes who participate are often still undervalued, especially in comparison to Olympians. Wareham, Burkett, Innes and Lovell (2017) found that a coach in their study had been told “a Paralympic medal was worth ‘a seventh of an Olympic medal’” (p.1198). This highlights the disparity and stigma that still exists surrounding parasport.</p>	
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### 4.1.3 Models of Disability

The models of disability (medical, social, social relational and human rights), provide a link between disability studies and para sport, as well as varying perspective on disability. Awareness of these models can aid coaches and policy makers' understanding of disability and impairment as well as the historical discourse present in this context.

Key Principles	Supporting Literature	Implications
<p>Medical Model</p>	<p>The medical model is rooted in medicine and rehabilitation, with impairment being the cause of disability (Swain, French and Cameron, 2003). This has led to impairment being simplified to only biological limitations, not accounting for an athletes' lived experience (Smith and Perrier, 2014). Therefore, social complexities of disability have not been considered (Townsend, Smith and Cushion, 2015).</p> <p>Barnes, Mercer and Shakespeare (1999) state the medical model portrays those with an impairment as abnormal. Blame is placed on individuals rather than society for the barriers that have been imposed upon the disabled population (Townsend et al, 2015). Fitzgerald (2012) suggests that from a medical model perspective, those with an impairment are defined by it.</p> <p>The medical model is often the underpinning feature of coach education (Townsend, Cushion and Smith, 2018). As well as coach education, research is often framed by the medical model, with impairment described as the cause of disability (Townsend, Smith and Cushion, 2015; Falcão, Bloom and Loughhead, 2015).</p>	<p>Coaches could be viewing impairment and their athletes with an impairment through a reductionist view. This could lead to coaches not effectively meeting their athletes' needs.</p> <p>Athletes' experiences aren't considered and the coach may focus on how they can change the athlete rather than their practice or coaching.</p> <p>Able-bodied coaches may not consider the potential barriers (e.g. transport issues), faced by those with an impairment as to them it is the norm and doesn't have a negative impact on their lives.</p> <p>If coach education and research continue to be underpinned by medical model discourse, the real complexities of this context cannot be thoroughly explored and understood.</p> <p>If disability continues to be understood mainly through the medical model, society will be ill informed as to their negative impact on the</p>

		lives of those with an impairment, in terms of imposing barriers and restrictions.
Social Model	<p>The social model locates disability as a socially constructed concept that results in barriers and restrictions for those with an impairment (Finkelstein, 2001), relating to “employment, housing, education, civil rights, transportation, negation of the build environment” (Thomas, 2014, p.10). Further examples of barriers can be found throughout the literature: transportation (McConkey, Dowling, Hassan and Menke, 2013), lack of provision (DePauw and Gavron, 2005) and a lack of knowledgeable coaches (Wareham et al, 2017).</p> <p>However, this model can disregard impairment, therefore ignoring the implications on this population (Martin, 2013) and their lived experiences.</p> <p>This model highlights the role that society has played in constructing barriers and disabling those with an impairment (Thomas, 2014). The able-bodied are seen to place limitations on those with a disability, therefore restricting their day to day lives (Thomas, 2004). Thomas (2004) stated that this has led to people with a disability holding “a position of lesser citizenship” (p.23).</p>	<p>This could result in coaches not fully considering their athletes impairments when planning and during practice.</p> <p>Coaches, governing bodies and policy makers should consider how they can remove some of these barriers in order to ease participation for those with an impairment.</p>
Social Relational Model	<p>The social relational model acknowledges the social construction of disability whilst also taking into consideration the impact of an impairment on individuals (Thomas, 2007; Reindal, 2008).</p> <p>Swain, French and Cameron (2003) state that within this model, disability is a social construction whilst impairment refers to physical limitation. Thomas (2004) further explains from a social relational view, disability refers to constraints imposed on those with an impairment by others, who may hold more power than them.</p>	<p>This model allows coaches to consider both impairment effect and societal and cultural influences that have constructed disability and barriers that those with an impairment face.</p> <p>Coaches should explore personal preconceptions regarding disability and disability sport. (Taylor, Culver, Werthner and Callary, 2015). They should also consider their practice and methods of learning that were effective in able-bodied sport may not be in</p>



	<p>Although many barriers are described as socially constructed, this model recognises that there are some barriers directly influenced by impairment, which is known as impairment effect (Thomas, 1999) which is the effect of impairment on an individual.</p> <p>Cultural and historical influences on society are accounted for (Townsend, Smith and Cushion, 2015), meaning disability can be analysed and understood at individual, social and cultural levels (Martin, 2013).</p>	<p>parasport context (Allan, Evans, Latimer-Cheung and Côté, 2019).</p> <p>Coaches should recognise that they can make changes and adapt their practice in order to suit the athletes and it is not the athletes that have to make adaptations.</p> <p>Coaches must be mindful of impairment effect and the uniqueness to each athlete. It is therefore important to communicate their athletes in order to understand individual impairments, the effect they have and how the coach can best offer support.</p> <p>Modified versions of sports such as wheelchair basketball or tennis and sitting volleyball, show some alignment with the social relational model of disability.</p>
Human Rights Model	<p>The recognition that those with an impairment have an equal right and should have equal opportunities for participation in sport (Hassan, McConkey and Dowling, 2014).</p> <p>There is a need for policies to support disabled peoples' participation in sport.</p>	<p>Coaches must be provided with sufficient education in order to promote inclusivity.</p> <p>Steps must be taken by coaches to make their practice more inclusive so that they can offer equal opportunities to all participants.</p>

#### 4.1.4 Barriers faced by para athletes

This section highlights a number of barriers, often imposed by society as explored through the social model of disability, faced by para athletes when participating in sport.

Key Principles	Supporting Literature	Implications
<p>A lack of opportunity and provision of sporting activities available to those with an impairment</p>	<p>DePauw and Gavron (2005) highlighted the lack of opportunity as being a barrier to participation for those with a disability.</p> <p>Darcy and Dowse (2013) found a lack of opportunity related to; a lack of information about activities that would be suitable, a waiting list, affordable and appropriate activities.</p> <p>This still proves to be an issue, with 18% of participants in a survey conducted by Activity Alliance (2020) stating there isn't enough opportunities available for them to take part in sporting activities.</p>	<p>A lack of equality in the sporting context between those with and those without an impairment.</p> <p>Many people who have a disability still want to participate, so they should be given opportunities to do so.</p>
<p>Some coaches lack knowledge and experience of para sport and athletes</p>	<p>This could be seen as a reflection of the lack of coach education and resources available to coaches in the para sport context (Townsend et al, 2018).</p> <p>Coaches with a lack of knowledge is a barrier to participation (Wareham et al, 2017) for athletes as sessions may not be inclusive or practices may not be adapted to suit athlete needs.</p>	<p>Sessions may not be suitable for those with a disability, as coaches do not know how to effectively adapt their practice or coaching to suit the needs of all.</p> <p>Due to a lack of specific para sport knowledge, coaches may be mirroring practice from able bodied sport. This is not a 'one size fits all' approach, and this style of coaching/practice may not be suitable for the para context.</p>

		<p>In order to understand impairment effect and have the ability to empathise with athletes, coaches should consider taking part in parasport or experience the equipment that athletes use (Tawse, Bloom, Sabiston and Reid, 2012).</p> <p>For athletes who use specialist equipment, coaches should be aware of how it works.</p>
<p>Transport can prove an issue for athletes of para sport</p>	<p>For adult athletes in particular, the lack of transport has proved to be a considerable barrier to participation (McConkey, Dowling, Hassan and Menke, 2013).</p> <p>French and Hainsworth (2001) highlighted that transport has proven to be a huge barrier to participation for those with a disability. In particular they found there to be a general lack of public transport during times when training would take place, as well as an issue with transport not being adapted or suitable for wheelchair users.</p> <p>More recently, the additional cost of transport has been highlighted as a particular barrier (Ives, Clayton, Brittain and Mackintosh, 2019).</p>	<p>Athletes often rely on others, such as coaches or parents to transport them for sporting activities. If they are not available the athlete may not be able to get to their practice or matches independently.</p> <p>Policy makers and transport providers should consider whether or not they are truly accessible and available to all.</p> <p>Coaches and organisations that provide sporting activities should consider the location in which the activity is taking place and how accessible it is by public transport.</p> <p>NGBs or transport providers could consider lowering costs for transport user with a disability, to ensure they still have the opportunity to participate in sport, without the worry of additional transports costs.</p>
<p>There a stigma that still exists around disability and impairment</p>	<p>In their study with elite coaches, Wareham et al (2017), found that within society there still exists a stigma around athletes with a disability and a negative perception of disability in general. This</p>	<p>This could have a negative impact on both athletes and coaches as it may prevent them from participation.</p>

	<p>can lead to athletes being belittled for their achievements when compared to able-bodied participants.</p> <p>Earlier, Bundon and Clarke (2015), highlighted that those with a disability could still participate in able-bodied sport however, they may still be subject to ableist discourse.</p>	<p>Being subject to negative attitudes and ineffective or unsuitable practices, could deter athletes from further participation or could tarnish their sporting experience.</p>
Specialist Equipment	<p>Many para athletes use specialist equipment in order to participate in sport.</p> <p>Emphasis has been placed on expense of essential equipment needed by athletes to compete, such as racing wheelchairs and prostheses (Bush and Silk, 2012; Patatas et al, 2018).</p> <p>At the recreational level, availability of equipment was noted as a barrier (Martin Ginis, Latimer-Cheung, and Rimmer, 2016).</p>	<p>The added cost of equipment could result in many people not being able to participate in sport.</p> <p>If it was viable, athletes could share equipment at the recreational level.</p>
Accessibility	<p>This related to access at facilities where sporting activities and training takes place.</p> <p>Notably accessibility has proven to be an issue a particularly for wheelchair users. McMaster et al (2012) found that participants of gymnastics had to take their wheelchairs apart in order to access the gym as doorways were not wide enough.</p> <p>A similar finding was also recorded more recently with Patatas, Bosscher and Legg (2018) stating that one athlete in their study couldn't access the gym without first taking the wheels off their wheelchair.</p> <p>Accessibility issues not only affect athlete performance and training, but also events outside of sport which are used to develop team-cohesion (Falcão et al, 2015).</p>	<p>Coaches must be aware of accessibility at venues, for training or competition. They may also need to communicate specific requirements with venues ahead of time (Allan et al, 2019).</p> <p>Venues should consider how accessible they are to those with an impairment and make necessary changes to ensure that everyone can have access.</p>

## 4.2 Coaching in Para Sport

This section covers the landscape of coaching within para sport. Specifically, how it is a blended profession, influences on coaching philosophy, roles of a coach and coaching practice. This a very unique context with each of the topics discussed providing an insight into being a coach in the para sport world.

4.2.1 Blended Profession		
In this instance, blended profession refers to the pathway, or lack of in this case, people have followed to become a para coach. Furthermore, how coaching is yet to become an established and accepted profession is explored. This has resulted in the workforce consisting of a variety of full time, part time, voluntary and paid positions for coaches. It is important to understand how and why people start coaching within para sport in order to effectively support those transitioning into coaching.		
Key Principles	Supporting Literature	Implications
Entry into coaching through previous connections (e.g. with a sport, para sport or a para athlete) and was not planned	<p>Coaches begin coaching for a variety of different reasons, with no clear pathway to follow (Duffy, Hartley, Bales, Crespo, Dick, Vardhan, Nordmann and Curado, 2011).</p> <p>Douglas, Falcão and Bloom (2018) interviewed 5 Paralympic head coaches, previously para athletes, all of whom were asked to start coaching by their own coaches.</p> <p>Fairhurst, Bloom and Harvey (2017), also interviewed Paralympic coaches. Four stated they started coaching para sport after an athlete with a disability had approached them with the remaining two coaches being previously been involved with disability research.</p> <p>All four coaches interviewed by Cregan, Bloom and Reid (2007) also stated that their entry into para coaching began when they were approached by athletes with a disability.</p> <p>Furthermore, the majority of coaches within disability sport have previously been athletes themselves but in able-bodied sport (DePauw and Gavron, 1991). Interestingly however, there is only a very small proportion of coaches whom have a disability</p>	<p>There is no clear pathway available for coaches to guide their development and progression.</p> <p>It could also make it more challenging to recruit new coaches as there is a lack of clarity.</p> <p>For those starting as a coach in parasport with no prior experience or impairment knowledge - it may prove more challenging. If there was a specific pathway to follow or guide coaches, it could ease the process.</p> <p>There should be more work put in to recruiting coaches for parasport with a disability themselves. A clearer pathway to becoming a coach could aid this and help athletes to transition. (These athletes will have first-hand experiences of playing and competing in parasport so could provide invaluable knowledge and support to those that they go on to coach).</p>

	themselves (DePauw and Gavron, 1991; Douglas, Falcão and Bloom, 2018).	
Employment status amongst coaches is varied	Similar to findings in able-bodied sport, there is a huge variation within the coaching workforce concerning employability (Duffy et al, 2011; Lara-Bercial, North, Petrovic, Olthmanns, Minkhorst, Hamalainen and Livingstone, 2017). This relates to the variety of paid, volunteer, part-time and full-time coaching roles (Duffy, North, Curado and Petrovic, 2013) in this blended profession.	Some coaches may not have the time/funds to develop specific disability or sporting knowledge if they are coaching on a voluntary basis.  There may be little opportunity for coaches' careers to progress due to little pay or voluntary positions.

<p><b>4.2.2 Coach Philosophy</b>  Philosophy is a highly contested topic within coaching and sport literature, which is discussed in this section in relation to the lack of definitional clarity. Coaching philosophy within para sport generally is explored, as well as a more in depth look at the philosophy of athlete-centred coaching, with reference to notions of empowerment and holistic coaching.</p>		
<b>Key Principles</b>	<b>Supporting Literature</b>	<b>Implications</b>
There is a lack of definitional and conceptual clarity within the literature	A number of academics have stated there is a lack of clarity surrounding the term coaching philosophy (Cassidy, Jones and Potrac, 2009; Cushion and Partington, 2016).	This could result in confusion amongst coaches  Coaches may have different interpretations of the term
Coach philosophy is underpinned by one's values and beliefs	Despite a lack of clarity, much of the research surrounding coaching philosophy, states that it is underpinned by one's values and beliefs (Cassidy et al 2009; Kidman and Hanrahan, 2011; Martens, 2012).  It can be influenced also by the context in which a coach is working, the organisation they are working for and their specific role (Nash, Sproule and Horton, 2008).	Each coach will need to develop their own philosophy based on their values and beliefs.  Philosophies can change throughout a coach's career; as their values and beliefs will as they progress through life and different experiences

		<p>A coaches philosophy could differ depending on the contexts they are working in and the role they hold in specific contexts</p>
<p>Coaching Philosophy in Para Sport</p>	<p>Coaching philosophy in para sport is still very much a research area in its infancy.</p> <p>Robbins, Houston and Dummer (2010) conducted a study with both wheelchair and stand-up basketball coaches in an effort to explore their coaching philosophies and expectations. They found that the wheelchair basketball coaches valued developing relationships with their athletes in order to increase confidence and to follow their (athletes) best interests. Another coach in the same study, with a disability himself, explained he believes it is important to push the athletes and have high expectations whilst still acknowledging impairment effect. The findings overall revealed little differences between the philosophies of wheelchair and stand-up basketball coaches.</p> <p>Cybulski, Culver, Kraft and Forneris (2016) conducted a study with Special Olympics coaches. When asked about their philosophies, all coaches articulated similar points: “to provide their athletes with a fun, encouraging and inclusive experiences, whilst teaching them things such as fair play, sportsmanship, an healthy living” (p.11). This could be attributed to the context in which they are working, as the mission of Special Olympics is provision of opportunities and development of life skills (Special Olympics).</p> <p>Coaches in a more recent study (Douglas et al, 2018),stressed the importance of having a philosophy of lifelong learning to aid their development and practice as parasport coaches.</p>	<p>Athletes with an impairment can still be pushed; however, coaches need to recognise the limits of individual athletes.</p> <p>The context in which a coach is working can alter their coaching philosophy.</p> <p>The philosophies of coaches in parasport and able-bodied sport may not be completely different.</p> <p>The importance of lifelong learning should be stressed to coaches so they understand the need to continually look to develop and improve.</p>

<p>Athlete-centred coaching</p>	<p>Lyle and Cushion (2010) refer to athlete-centred coaching as putting the needs of the athlete at the forefront with Cassidy, Jones and Potrac (2009), suggest that this approach can improve learning amongst athletes and have positive impact on their performance.</p> <p>Townsend and Cushion (2017) state that it is vital for coaches to develop a deeper understanding of disability to effectively implement an athlete centred approach to coaching within their practice.</p> <p>An athlete-centred philosophy links to notions of empowerment, athlete independence and autonomy (see below).</p>	<p>Coaches must consider the specific context in which they are coaching and how they can ensure athletes are at the centre of the practice.</p> <p>Athletes' experiences should be at the centre of coaching practice (Townsend, Smith and Cushion, 2015) and coaches should ensure they concentrate on athletes' individual needs and wants. This aligns with the social-relational model of disability.</p> <p>Through athlete-centred coaching, athletes should be given more choice and control over practice.</p> <p>An athlete-centred approach places more responsibility on the athletes for their own learning and development.</p> <p>Coaches should consider their behaviour and whether or not it is truly promoting athlete-centred learning effectively.</p> <p>Each athlete is unique and so coaches should not assume that this approach will be suitable or effective for all athletes.</p>
<p>Empowerment</p>	<p>Empowerment can relate to increasing one's independence, control and confidence. It is commonly used in parasport literature. However, Townsend, Huntley, Cushion and Fitzgerald (2018) argue that empowerment within this context is often taken for granted and influenced by power relations and ideologies.</p> <p>Nevertheless, a number of strategies implemented to encourage empowerment have been explored within literature.</p>	<p>The notion to almost reject disability, could mean that coaches aren't accounting for impairment effect. Therefore, they should be aware of the implications this could have for the athletes and their performance to ensure striving for empowerment does not hinder them.</p> <p>Coaches should consider strategies they could use within their practice that would promote athlete</p>



	<p>Coaches in a study conducted by Cregan, Bloom and Reid (2007) stated the importance of building achievable goals for athletes. Once these goals were reached it provided a sense of empowerment for athlete</p> <p>Furthermore, Tawse et al (2012) found coaches of wheelchair rugby would not allow their athletes to use their disability as an excuse when playing, in order to promote high expectations.</p> <p>Purdue and Howe (2012) suggested that this focus on identity as an athlete and not disability could empower athletes with an impairment.</p> <p>Townsend et al (2018) found evidence of notions of empowerment in their study with Paralympic coaches. With one coach stating she doesn't think of her athletes as disabled and that often coaches can be "encouraged to coach the 'athlete' not the 'disability'" (p.347).</p>	<p>empowerment whilst still taking impairment effect into account.</p> <p>Coaches could communicate with their athlete in an effort to identify goals that can be worked towards</p>
Autonomy	<p>Mageu and Vallerand (2003) state that autonomy-supportive coaching involves 7 steps:</p> <p>“(1) provide as much choice as possible within specific limits and rules  (2) provide a rationale for tasks, limits and rules  (3) inquire about and acknowledge others’ feelings (4) allow opportunities to take initiatives and do independent work  (5) provide non-controlling competence feedback  (6) avoid overt control, guilt inducing criticisms, controlling statements and tangible rewards  (7) prevent ego-involvement from taking place” (p.886).</p>	<p>Coaches should alter their practice to create an autonomy-supportive environment</p> <p>Coaches should consider what they can do outside of the sporting context to encourage athlete independence</p> <p>Coaches must reflect on their behaviour and how they can adapt it to provide athletes with autonomy.</p> <p>Athletes should be presented with decisions to make during practice.</p>

	<p>It has been highlighted within disability sport, it is important for coaches to promote and provide autonomy both within and outside of sport as it can aid athletes' development in wider life (Cregan, Bloom and Reid, 2007).</p> <p>Coaches can provide athletes with autonomy by giving them choice during practice (Conroy and Coatsworth, 2007).</p> <p>Banack, Sabiston and Bloom (2011) suggest that there is a relationship between athletes' intrinsic motivation and a coaches' provision of autonomy.</p>	<p>Coaches should make an effort to provide athletes with feedback.</p> <p>Coaches and athletes should be encourage to value effort over success. This is reflective of a mastery climate, where focus is on athlete enjoyment and effort (Breiger, Cumming, Smith and Smoll, 2015), which can help to increase athletes confidence.</p> <p>By providing an autonomy supportive environment, coaches can had an effect on athlete motivation.</p>
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<p>4.2.3 The role of a coach</p> <p>Highlighted within the following section is the intricacy of a coaches' role within para sport. Understanding this complexity could lead to more effective and relevant support for coaches. The role of a coach varies depending on a multitude of factors, such as context, coaching experience and the athletes, to name a few. Therefore, it is imperative that the roles of a coach is explored within the para sport environment to deepen our understanding and appreciation of this unique context.</p>		
Key Principles	Supporting Literature	Implications
Role Framing	<p>Coaches' roles and responsibilities are influenced by their experiences, education and training (Taylor, Werthner and Culver, 2014; Lyle and Cushion, 2016).</p> <p>Coaches in para sport have identified that they have a twofold role whereby they need to understand their athlete's disability as well as the sport (Martin and Whalen, 2014).</p>	<p>Coaches will all have personal experiences, various forms of education and training meaning they may view their roles differently even if that are working in the same context.</p> <p>Coaching and sport is socially constructed, so the context will have an influence on how a coach views their role.</p>

<p>The role of a coach in para sport can be described as much more complex and multifaceted than that of a coach in able-bodied sport.</p> <p>There are many roles a coach in parasport make take on.</p>	<p>The role of a coach has been described as complex regardless of context, yet with additional roles and responsibilities it has been argued that the complexity is heightened for coaches working in disability sport (Banack, Sabiston and Bloom, 2011; Falcão, Bloom and Loughhead, 2015).</p> <p>Bush and Silk (2012) found that coaches often had a myriad of roles and were more than <i>just</i> a coach. A number of roles have been identified in the literature: developing relationships with players, organising transport, assessing accessibility of venues, aiding development of life skills, being a role model and providing feedback which can also impact athletes’ motivation (Banack et al, 2011; Tawse, Bloom, Sabiston and Reid, 2012; Cybulski et al, 2016).</p> <p>Coaches in a study conducted by Tawse et al (2012) discussed roles on top of coaching, that are specific to disability sport. Including but not limited to; helping athletes with basic life skills, planning for accessibility and travel. The coaches in this study also state they feel their role is to develop athlete holistically and develop their skills in and out of sport.</p> <p>Furthermore, one coach stated that a lack of resources and finances available in parasport forced him to take on multiple roles (Taylor, Werthner and Culver, 2014). “Michael described his multiple roles: fundraiser, mechanic, manager, recruiter, nutritionist, trainer, prosthetics specialist, and coach for varying para athlete classifications” (p.132).</p> <p>A more recent study (Cybulski et al, 2016) carried out with Special Olympics coaches found that two major parts of their role was to develop the participants’ life skills and to act as positive role models.</p>	<p>Coaches should be aware of the extra responsibilities and roles they may have to undertake coaching para sport.</p> <p>Coaches may become more than a coach to some athletes, and can aid their development outside of sport.</p> <p>Due to the many layers to the role of coach within disability sport, Tawse et al (2012) suggested that athletes in disability sport may value their coaches more compared to able-bodied athletes, which supports later findings from Allan et al (2019). This could lead to a more effective and closer relationship.</p> <p>Coaches should take time to foster and develop effective relationships with their athletes.</p> <p>Coaches should ensure they are providing athletes and participants with feedback, in order to aid their performance, but also increase their motivation.</p> <p>The role/s of which a coach takes on will be dependent upon the needs of the athletes and the specific context of which they are coaching in.</p>
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	<p>The relationship that coaches develop (with athletes and parents) in disability sport is another important part of their role. Martin and Whalen (2014) highlighted the importance of coaches developing effective relationships with their athletes' parents; especially with youth athletes. Allan et al (2019) found that one athlete they interviewed valued their coach very highly stating "my coach is probably the most important person in the life outside of my parents" (p.12).</p>	
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4.2.4 Coaching Practice		
The following section explores coaching practice within parasport. Practice in parasport is shaped by a coach's understanding of disability (DePauw, 2000). There has been limited research on this topic, however, there are identifiable patterns of support necessary to high quality para coaching. comparisons with coaching in an able-bodied context, creativity, equipment and how practice can be adapted to suit athletes.		
Key Principles	Supporting Literature	Implications
Coaching practice in parasport	<p>There has been limited research into coaching practice within the parasport context (Townsend et al, 2015), however it has been argued that it is more complex than in able-bodied sport (Duarte and Culver, 2014).</p> <p>Despite this, coaches and academics have explored some of similarities between the two contexts. DePauw and Gavron (2005) state that coaches of able-bodied and parasport will have a lot of the same skills as each other (e.g. goal-setting,</p>	<p>Limited research can limit our understanding of this complex context.</p> <p>Coaches should be able to recognise similarities and differences between coaching in the two contexts and why they are present.</p> <p>As there are some similarities, coaches with a background in able-bodied sport must be mindful as</p>

	<p>giving feedback, progressive practice). Furthermore, in both contexts the importance of adapting practice and training in order to meet individual athletes' needs should be highlighted (Cregan et al, 2007).</p> <p>That being said, there have been a number of differences discussed in literature and the importance of considering the two contexts do vary with unique elements (Wareham et al, 2017). Unique to coaching in parasport is the need to understand the nature of specific disabilities (DePauw and Gavron, 2005).</p> <p>It is important to consider and understand issues related to equipment, impairment effect and to have information about various disabilities (McMaster et al, 2012).</p>	<p>to not try to replicate a mirror image of their practice in a parasport environment.</p>
<p>The use of creativity</p>	<p>A number of coaches have described creativity as being "vital" when working in disability sport, due to the lack of education and training opportunities (Cregan et al, 2007, p.347).</p> <p>Wareham, Burkett, Innes and Lovell (2017) interviewed coaches who highlighted that working in disability sport and with athletes who have specific needs was actually the driving force behind them having to be more creative when planning sessions.</p> <p>Studies have given examples of how coaches have used creativity for purposes related directly and indirectly to their practice. Coaches interviewed by Tawse et al (2012) stated that creativity is important in disability sport when having to design practice to suit a wide variety of ability levels. Whereas Taylor et al, (2015), interview one coach and found that he showed his creativity in how he chose to learn and acquire knowledge specific to disability sport, due to there being a lack of resources readily available. Specifically he learnt how to utilise</p>	<p>Coaches should think outside the box when planning sessions to ensure: they suitable for all or that adjustments can be made to games / drills in order effectively meet participants' needs.</p> <p>As a lot of coaches who work in this context do not have a disability themselves (Douglas et al, 2018). They may need to be creative if they do not currently have access to disability specific coach education, in terms of how they adapt their practice and what additional skills they may need to learn in order to best meet and understand the needs of their athletes.</p>

	and adapt athletes' specialist equipment, learn Braille and qualified as a guide to aid those with a visual impairment, all through learning opportunities outside of sport. Additionally, this further highlights the notion that coaches in para sport gave a myriad of roles (Bush and Silk, 2012; Tawse et al, 2012).	
Adjusting practice	<p>Many coaches in parasport began coaching in able-bodied sport (Douglas et al, 2018) and so there is a need to adapt their practice to suit para athletes. Additionally, within a group of para athletes, there can be a wider range of ability levels, as well as impairment effect to consider, so coaches will need to adjust training appropriately to meet individual needs.</p> <p>Cregan et al (2007) conducted a study with coaches of swimmers with a physical impairment. The coaches highlighted the importance of altering training depending on the athletes' training needs and impairment. This was achieved through changing location of sessions; the time and distance athletes would train for as well as the strokes they completed.</p>	<p>Coaches should take into consideration the ability levels of the athletes (as you would in able-bodied sport).</p> <p>Coaches must consider different impairment effects faced by their athletes and how practice could be altered to suit and be effective for each individual.</p> <p>Coaches should also be mindful of how adjustments may impact other participants and ensure it doesn't negatively influence their practice and experience.</p> <p>Coaches can use models such as STEP: adapting space, task, equipment and/or people (Black and Williamson, 2011) to aid practice adaptation.</p> <p>Notably for coaches new to the parasport context, a comprehensive session plan with adaptations that can be made for each activity, as well as timings and equipment needed throughout the session, is a valuable asset (Allan et al, 2019).</p>
Specialist Equipment	<p>One factor that many parasport coaches may have to consider is the use of equipment to aid their athletes and often make it possible for them to participate in sport and physical activity.</p> <p>Wareham et al, (2017), found that coaches and athletes often struggle with the accessibility and expense associated with specialist equipment needed for participation in some</p>	<p>Athlete may not be able to participate due to a lack of equipment because of accessibility or finance issues.</p> <p>Without certain equipment, coaches may not be able to adapt their practice/sport in order to make it inclusive and suitable for those with an impairment.</p>

	<p>parasport (e.g. wheelchair for any wheelchair sports). Furthermore, as an athlete grows or even improves, the challenge is then for coaches to change the equipment in order to suit the athlete, which again comes at an expense. Coaches in the present study explained how it is the athlete's responsibility to buy some of their equipment, yet they felt a responsibility to aid with this through fundraising.</p>	
<p>Coaches must be mindful of their behaviour</p>	<p>Often, how a coach acts can have an influence on athletes, in a negative or positive manner.</p> <p>Banack, Sabiston and Bloom (2011) found that there was a relationship between coach behaviour and athlete motivation, with Allan et al (2019) highlighting a coaches behaviour can impact an athletes confidence.</p> <p>Martin and Whalen (2014) drew further links between a coaches' behaviour and their athletes. They found that athletes' sporting experience was improved when coaches displayed democratic leadership behaviours.</p> <p>Alexander, Bloom and Taylor (2020) conducted a study with retired Paralympic athletes. They concluded that athletes' sporting experiences can be tarnished by a coaches negative behaviour. For example; inappropriate behaviours (such as inappropriate touching), sexism and forms of harassment. This was mainly the case for male coach – female athlete relationships. On the other hand, participants in this study also explained the value of their coaches to their athletic careers and how positive behaviours such as being open-minded and knowledgeable can truly enhance their development.</p>	<p>Coaches should be mindful of their behaviours as it may directly impact their athletes in a negative manner.</p> <p>Coaching behaviours can alter an athletes' experiences within sport either negatively or positively. Coaches should consider supporting their athletes, proving them with choice and feedback in order to improve their sporting experience.</p> <p>Coaches should promote and create a discrimination free environment, whereby athletes do not have to worry about inappropriate behaviours from coaches.</p>

### 4.3 Coach Learning

Learning is vital in order for coaches to provide high quality opportunities for participants. This section explores the learning and education available for para sport coaches, as well as what is needed and how coaches are currently learning and developing their practice.

4.3.1 Construction of Learning to Coach in Para Sport Literature		
The following section gives an overview of coach learning within para sport and its construction within the literature, with links to key learning theory and mechanisms that have been drawn upon (learning situations, actual and ideal sources of knowledge, biographies).		
Key Principles	Supporting Literature	Implications
Learning situations (formal, informal, non-formal)	<p>A number of studies exploring coach learning in para sport have drawn upon learning situation theory as proposed by Nelson, Cushion and Potrac (2006).</p> <p>Fairhurst, Bloom and Reid (2017) interviewed Paralympic coaches to gain an understanding of their learning experiences through formal and informal learning environments. Coaches in the study stated the need to gain specific knowledge in order to coach elite athletes in the disability context. Despite this, there was no formal coach education available to them and so they were forced to acquire this knowledge through informal means, including: trial and error and learning from their athletes.</p> <p>The following year Douglas et al (2018) also conducted a study interviewing Paralympic coaches. The coaches highlighted a variety of means (e.g. university education, playing experience, peer coaches, mentors) through which they acquired their coaching knowledge. These were then attributed to formal, nonformal or informal learning situations.</p>	<p>Coaches should consider the most effective method to learn and develop their knowledge.</p> <p>The lack of formal opportunities to learn e.g. coach education available needs to be addressed by governing bodies.</p> <p>Coaches can learn through a variety of learning situations. It is dependent upon the individual coach and their circumstances as to how they may feel they learn best.</p>



<p>Actual and ideal sources of knowledge</p>	<p>Actual and ideal sources of knowledge refer to how coaches are currently learning and methods they believe to be effective.</p> <p>Erickson Bruner, MacDonald and Côté, (2008) explored actual and ideal sources of knowledge of Canadian coaches with differing years of experience but all coaching at the development level. The findings of the study identified actual sources of knowledge and two forms of ideal sources of knowledge: for coaches wanting to remain at the development level and for those wanting to progress to the elite level. Findings revealed the coaches top three sources of actual coaching knowledge were: learning by doing, from peer coaches and participation the National Coaching Certification Programme (NCCP). The top three ideal sources of knowledge for coaches at the development level included: NCCP, peer coaches and mentors. The most common idea sources of knowledge for coaches wanting to progress were: learning by doing, NCCP and mentors.</p> <p>MacDonald, Beck, Erickson and Côté (2016), interviewed coaches of the Special Olympics. The purpose was to explore their actual and ideal knowledge sources in order to establish both how coaches are currently learning and what they need in order to meet their learning needs. The results were split into three groups: competition, organisation and training. The top three actual sources of knowledge as reported by the coaches were: learning by doing, from peer coaches and through planning. The most common sources of ideal sources of knowledge according to the coaches in this study include: learning with a mentor, coaching courses and learning by doing.</p>	<p>Ideal sources of knowledge to coaches need to be more readily available to coaches if they are not already</p> <p>National Governing Bodies need to recognise the desire coaches have to learn through coaching courses</p> <p>Coaches should consider the level at which they want to coach in order to decide the most effective source to gain their knowledge from</p>
<p>Biography and Lifelong Learning</p>	<p>A number of studies have explored how coaches learn with the use of biographies, which relates to ones' previous experiences throughout life and in various social contexts, through which they have learnt (Jarvis, 2006).</p>	<p>Learning and developing knowledge is a continuous process for coaches and an individual process.</p>

	<p>Duarte and Culver, (2014) conducted a study with an adaptive sailing coach, collecting data across a 6-month period regarding her background, coaching experiences and life history. The results indicate how she learnt in relation to different contexts, experiences and people that influenced her rather than discussing specific methods used.</p> <p>Stodter and Cushion, (2017) used a grounded theory approach influenced by the youth football coaches' biographies. Findings reveal coaches' previous experience influences how a coach learns, their beliefs and behaviours. Their biographies inform how they view and interpret knowledge.</p>	<p>Important for coaches to recognise what influences their learning and whether it is negative or positive.</p>
<p>Biography and learning situations</p>	<p>There have been a number of papers to use both coaches' biographies and learning situations (formal, nonformal, informal) to develop an understanding of coach learning.</p> <p>McMaster et al (2012) observed and interviewed five coaches from different sports to explore their learning experiences. Findings highlighted a number of influences on their learning: individual biographies, learning situations and development opportunities available to them in their respective sports. Each of these influences affected how the coaches acquired knowledge and developed their practice.</p> <p>In relation to biography, coaches stated that athletic experience had an impact on their coaching, but three of the coaches athletic experiences were in able-bodied sport; meaning they would have a lack of knowledge of the para sport context compared to the coaches with a disability who were previously athletes.</p> <p>The second influence on coaches' development was learning situations, specifically: formal (e.g. coach education, nonformal</p>	<p>Consideration of previous experiences and how it may influence coach learning</p> <p>As provision of education and resources differs between sports, NGBs should contemplate collaborations in order to make coach education and coaching resources more readily available in parasport</p> <p>Coaches (without a disability), who have previously been an athlete, must be considerate of the differences between being an athlete in the two contexts (able-bodied sport and parasport). It may be important for those coaches to make <i>more</i> of a conscious effort to communicate with athletes about their needs and the impairment effect.</p>

	<p>(e.g. coaching clinics) and informal (e.g. learning from peer coaches). McMaster et al (2012) stated that learning experiences of the coaches also related to the sports of which they coached. For example, coaches from wheelchair tennis and wheelchair rugby found formal coach education to be of value as it was specific their context. Alternatively, the other coaches in the study had no specific coach education available to them and so did not find it useful.</p> <p>Another study to explore coach learning using biographies and learning situations was carried out by Taylor et al (2014) with an international level coach in Canada. Findings highlighted a number of meaningful experiences contributing to the coaches biography, that had influenced his development as a parasport coach: family and environment, school and peers and transition through adversity into parasport (p.130). Learning situations were then explored. Formal learning involved: university education and participation on a National Coaching Certification programme (NCCP). Nonformal learning referred to: conferences, coaching clinics and certifications outside of sport that had aided his practice within parasport. Informal learning consisted of: mentors, relationships with athletes, family influence and reflection).</p>	
Biography and cultural/contextual Influences	<p>Coaching and learning are both socially constructed therefore influenced by various cultural and contextual factors as well as one's biography.</p> <p>Stodter and Cushion, (2014) explored the learning experiences of two club development coaches before, during and after participation in a formal coach education course and how their biographies and wider coaching contexts influenced their knowledge development. Findings highlighted that the coaches developed knowledge that corresponds to existing knowledge</p>	<p>Coaches should consider external influences on their learning and development.</p> <p>Coaches should make a conscious effort to develop new knowledge, even if they feel it may not be completely applicable to their context, as it could improve their practice.</p>

	and the context in which they coach. Notably, researchers stated that they found little change in coaches practice following the course.	
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4.3.2 Learning in Practice		
Learning in practice relates to the methods para sport coaches are using to learn and develop their knowledge. Although there are different theories used to describe how coaches learn within the literature (as discussed above), ultimately, each study has similar findings in how coaches learn including: learning from other coaches, using previous athletic experience, learning from their athletes, through experience and mentorship.		
Key Principles	Supporting Literature	Implications
Within much of the current research, coaches have reported that learning from other coaches is their preferential means of gaining knowledge	<p>Within much of the literature, coaches place high value in learning with and from other coaches (Cregan, Bloom and Reid, 2007; McMaster, Culver and Werthner, 2012; Deek Werthner, Paquette and Culver, 2013; Douglas, Falcão and Bloom, 2018; Fairhurst, Bloom and Harvey, 2018).</p> <p>Learning from other coaches refers to both observations of and interacting with to develop knowledge (Deek, et al, 2013). Fairhurst, Bloom and Harvey (2017), who highlight that disability sport coaches often learn socially, support this.</p> <p>A number of studies have highlighted the benefit of coaches learning from one another and sharing knowledge, and how current knowledge may be transferred to parasport (Allan et al, 2019; Duarte and Culver, 2014; McMaster et al, 2012).</p> <p>McDonald, Beck, Erickson and Côté (2016), found that coaches actually had a desire to learn and develop their knowledge from and with other coaches.</p>	<p>Coaches should consider working with more experiences coaches in order to develop their own knowledge.</p> <p>Learning from other coaches allows the opportunity for <i>Communities of Practice</i> to form, as well as the potential development of mentoring partnerships.</p> <p>Learning from other coaches could also lead to mentorship opportunities which have proven to be very effective (see below for further detail on mentoring).</p> <p>As coaches have a desire to learn from other coaches and it one of the most common forms of learning for coaches in parasport, NGBs should consider providing this opportunity.</p>
Coaches often state they use their own athletic experience to aid their development as a coach.	Many coaches transition into coaching from participation in sport themselves. Lara-Bercial and Mallett (2016) found that previous athletic experience was useful in learning to coach.	Coaches use their prior experience as athletes to aid their development as a coach. This can be useful as it may be easier to relate to the athletes and understand their experiences.

	<p>Some coaches also felt that they became a coach because of their successful careers as athletes (Douglas, Falcão and Bloom, 2018), with a number of coaches going as far to state their coaching careers had been accelerated due to their previous athletic history.</p>	<p>Coaches whom have not experienced being an athlete in the parasport environment need to consider the differences between this and that of the able-bodied sporting context; as their personal athletic experiences may differ and therefore may not be applicable.</p>
<p>Many coaches also highlight the importance of learning from experience and experimentation (learn by doing)</p>	<p>A large majority of coaches within research have reported that learning by doing is a valuable source of knowledge (McDonald et al, 2016). Due to the lack of formal means, coaches gain knowledge and develop their practice through trial and error (Douglas et al, 2018), often simply adapting practice from able-bodied settings to try and suit the para context.</p>	<p>Often, coaches will rely on trial and error to develop their practice.</p> <p>Coaches try to mirror practice from an able-bodied context which often isn't suitable for athletes with a disability.</p> <p>Trial and error could be quite time consuming for coaches.</p> <p>Trial and error could highlight areas of practice that a coach may need to develop/improve upon.</p>
<p>Learning from their athletes is also another significant means of education for para sport coaches.</p>	<p>As a large majority of coaches within disability sport do not have a disability themselves (Fitzgerald, 2013) so they often rely on communication with their athletes to inform them of their impairments (McMaster, Culver and Werthner, 2012).</p> <p>This is consistent with findings from Fairhurst, Bloom and Harvey (2017) where coaches develop specific disability knowledge with the help of athletes. This occurs because coaches felt there was a lack of information and resources regarding disability sport available to them but also the athletes have detailed knowledge about their impairment,</p>	<p>Coaches can learn about their athletes and their impairments 'on the job'.</p> <p>It allows coaches to gain an individualised understanding of impairments, as athletes will be sharing their particular needs and how coaches can best support them.</p> <p>Having this open communication and learning experience with their athletes, could aid coaches in developing a stronger rapport and connection with them.</p>

	<p>allowing coaches can gain more specific and individualised knowledge.</p> <p>Communication with athletes is imperative in disability sport (Hanrahan, 2007). Duarte and Culver (2014) interviewed an adaptive sailing coach who stated that she has to learn about athletes' individual needs in order to be able to adapt he practice to suit each athlete.</p>	<p>Having individualised knowledge of an athlete's impairment, it allows a coach to understand how this may impact their practice, and steps that can be taken to improve athlete's participation.</p>
<p>Learning from mentors</p>	<p>Literature surrounding both able-bodied and para sport has highlighted the importance of mentorship for coach learning and development (Douglas et al, 2018; Duarte and Culver, 2014; Erickson et al, 2008; Fairhurst et al, 2017; MacDonald et al, 2016).</p> <p>Mentors can be useful for coaches who are new to coaching disability sport, helping them to develop effective practices and training plans (Taylor, Werthner and Culver, 2014). Duarte and Culver (2014) conducted a life history study with an adaptive sailing coach, who stated that she had many mentors at the start of her career who helped her develop coaching knowledge.</p> <p>Mentoring can also be successful during the latter stages of a coach's career. Fairhurst et al (2017) found that coaches used mentors to navigate becoming an elite coach. The coaches in the study stated that they "learned highly specialized technical skills for coaching disability sport from their mentors" (p.243).</p> <p>It has also been highlighted that mentors can enable coaches in increasing self-confidence (Douglas et al, 2018).</p>	<p>In sports where there is no mentorship programme established, coaches should seek a more experienced coach from whom to learn and develop a mentor-mentee relationship with.</p> <p>Mentors are more experienced others, so coaches should take the opportunity to ask questions in order to enhance their knowledge.</p> <p>National Governing Bodies should look to establish mentorship programmes, especially for novice coaches as working with other coaches' aids knowledge development and confidence.</p> <p>Mentors can also support the coaches when developing their philosophies and trying to understand their roles within para coaching.</p>

	<p>Not only is there evidence for coaches currently learning from mentors, but MacDonald et al (2016) highlighted that coaches actually have a desire to learn through mentorship as it can be a valuable knowledge source.</p>	
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<p><b>4.3.3 Coach Education</b>            This section explores coach education, which is a crucial source of knowledge for coaches. Within para sport, there has been a notable lack of formal coach education, adding a further barrier to participation as coaches may not have sufficient knowledge to effectively coach athletes with a disability. Also looked at is the desire and need for coach education, as well as the argument of integration vs separation.</p>		
<p><b>Key Principles</b></p>	<p><b>Supporting Literature</b></p>	<p><b>Implications</b></p>
<p>There is a lack of formal coach education available specifically targeted at coaches of para/disability sport</p>	<p>A number of academics have highlighted the dearth of coach education within the disability sporting context (McMaster, Culver and Werthner, 2012; Taylor, Werthner and Culver, 2014; Townsend and Cushion, 2017; Townsend, Cushion and Smith, 2018), despite DePauw (1986) highlighting the importance of and need to educate coaches over three decades ago.</p> <p>This lack of formal coach education has forced coaches to learn through other means (Douglas, Falcão and Bloom, 2018) as discussed above.</p> <p>Although there is an overall lack of coach education for parasport, it is available in some sports. For example, wheelchair rugby and wheelchair tennis both have coach education programmes McMaster, Culver and Werthner (2012), interviewed coaches who had participated in these courses. They found them to be valuable, information being given was specific and detailed to the context.</p>	<p>Coaches have been forced to learning and developing their knowledge through other means. This can lead to a reproduction of knowledge with no new knowledge being produced.</p> <p>Often coaches reproduce ableist practice within the para sport context due to a lack of formal education.</p> <p>This can also result in coaches' needs not being met as there is little or no support available (Townsend et al, 2018).</p> <p>Coach education within the disability context, often varies in availability and quality depending on the sport.</p>

<p>Underpinning formal coach education that is available, is the medical model of disability</p>	<p>Townsend, Cushion and Smith (2018) highlight that medical module discourse supports and underpins the majority of coach education, therefore disregarding athletes' lived experiences of impairment and the societal and cultural implications.</p>	<p>Coaches may focus solely on the impairment and forget to coach the athlete as a person also.</p> <p>The coach may try to change the athlete rather than the practice or surroundings in order to better support them.</p>
<p>A lack of formal education can be seen as a barrier to athletes.</p>	<p>This lack of formal education can leave coaches without sufficient knowledge and qualifications, which can be recognised as a barrier to participation for athletes with a disability (Wareham, Burkett, Innes and Lovell, 2017).</p> <p>Furthermore, under educated coaches can leave athletes feeling frustrated and misunderstood (Allan, Blair Evans, Latimer-Cheung and Côté, 2019).</p>	<p>A lack of appropriately educated coaches can lead to a lack of participation amongst those with a disability.</p> <p>Coaches may not understand disability sport and how to include athletes with a disability into their sessions.</p> <p>Athletes may feel as though they are not supported or understood by their coaches which could lead to a negative sporting experience.</p> <p>Coaches, notably novice coaches, may not feel as though they have a suffice foundation of knowledge to coach in parasport without formal provision.</p>
<p>There is a need and demand for formal coach education for the para sport context</p>	<p>DePauw (1986) first stated the need for formal coach education in parasport, more recently Tawse, Bloom, Sabiston and Reid (2012) have further highlight the need for coach education in order to expand coaches' knowledge.</p> <p>Townsend and Cushion (2017) stated that for quality sport experiences, coach education is essential. This could help to improve provision of and participation in parasport.</p>	<p>Coaches have a desire and need to learn.</p> <p>Coach education can expand a coach's knowledge base and develop their practice</p> <p>NGBs need to take into consideration the demand for formal coach education in parasport. Developing coach education could increase the workforce, participation in the sport and increase the knowledge of coaches.</p>



<p>Integration v separation of coach education</p>	<p>It is common for coach education related to disability sport coaches to be detached from other coach education (Bush and Silk, 2012).</p> <p>However, inclusion of disability specific education in 'mainstream' coach education will expose all coaches to this context and allow them to develop some understanding, which could result in them getting involved in disability sport (Bundon and Clarke, 2015).</p> <p>Furthermore, Oliver and Barnes (2010) argued that "an inclusive education system is a necessary prerequisite for an inclusive society (p.556).</p>	<p><b>Separation:</b> This could leave the wider coaching workforce with a lack of awareness and understanding of disability sport and para athletes.</p> <p>More detailed education, as there is a more specific and narrow focus.</p> <p>However, it could further increase the disparity between parasport and able-bodied sport.</p> <p><b>Integration:</b> Could lead to increased awareness of the parasport context.</p> <p>Encouragement of coaches to get involved in parasport.</p> <p>Increased workforce due to more awareness and a rise in the number of coaches being educated.</p> <p>Integration could result in parasport only being a small segment of the wider coach education programme, therefore not being covered in enough detail.</p>
<p>Coaches currently have mixed views on the value of formal coach education</p>	<p>Some coaches have described formal coach education they have experienced as irrelevant (Douglas, Falco and Bloom, 2018), with knowledge being decontextualized and not applicable to the complexities and reality of practice (Nelson, Cushion and Potrac, 2006).</p>	<p>Education deemed as irrelevant by coaches could mean skills and knowledge cannot be effectively transferred to practice.</p> <p>Coaches may be left unequipped to deal with the realities of practice if education is not suitable for their specific coaching context.</p>

	Others have found that coach education is valued amongst coaches for providing knowledge and having a positive impact on their development (Stoszkowski and Collins, 2014).	Often, coaches that have participated in targeted parasport education have found it useful and so NGBs should consider development of these courses.
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## 4.4 Para Athletes

A vital part of the coaching process, it is crucial to consider the athlete voices in sport. Potentially even more so in para sport as they often have more specific and unique needs. This section will discuss the psychosocial outcomes and benefits of participation for para athletes and their development, in sport as well as outlining the classification system.

4.4.1 Athlete Development		
This section explores the development of athletes in relation to psychological and social outcomes as a result of participation in sport and physical activity and positive youth development (PYD).		
Key Principles	Supporting Literature	Implications
Psychosocial outcomes as a result of sport participation	<p>Psychosocial refers to both social and psychological outcomes (Henderson and Bryan, 2004), in this case as a result of participating in sport. According to Horn (2008), psychosocial development of athletes is a key part of an effective coaches' practice; arguably even more so when coaching athletes with impairments, particularly intellectual, as it is common for their psychosocial wellbeing to suffer more so than athletes without impairments (Emerson and Hatton, 2007).</p> <p>Participating in sport can result in a number of psychosocial benefits for athletes with a disability (Richardson, Papatomas, Smith and Goosey-Tolfrey, 2017) such as: reduced stress and anxiety, increased self-esteem, improved life quality, (Barak, Mendoza-Laiz, Gutiérrez Fuentes, Rubiera, Hutzler, 2016).</p> <p>It could be argued that, positive development of these skills is crucial to athletes with an intellectual disability as they are more</p>	<p>Seeing that there are a number of psychological and social benefits to participation, could encourage athletes to take part in sport.</p> <p>Coaches should be aware of what they can do in their practice and through their behaviour that promotes psychosocial benefits for their athletes.</p> <p>Coaches should be mindful that from the perspective of their participants, the social side of sport is very important to their continued participation. Therefore, they should promote social outcomes, such as teamwork, developing relationships and making new friends within their practice.</p>

	<p>to face a lack of psychological components such as confidence and motivation (Weiss et al, 2003).</p> <p>Backack et al (2011) previously highlighted the importance of promoting positive psychological outcomes for athletes through autonomy supportive coaching.</p> <p>More recently, (Darcy and Dowse, 2013), questionnaire results from participants with an intellectual disability highlighted that the social element of sport participation is key for athlete retention.</p>	
<p>Psychosocial outcomes as a result of sport participation in relation to different contexts</p>	<p>Psychosocial outcomes will be explored in relation to three sporting contexts: school, community and performance.</p> <p><b>School</b>  There is a dearth of research exploring psychosocial outcomes of those with a disability participating in sport or physical activity in a school context.  However, a number of school pupils in a study conducted by Fitzgerald (2005), compared themselves to other pupils during physical education lessons, which could have a negative impact on their psychological well-being.</p> <p><b>Community</b>  Psychosocial skills in young people with a disability can be developed through participation in sport (Hutzler, Chacham-Guber and Reiter (2006). However, they do suggest that the psychosocial outcomes may be influenced by whether the participant has a congenital or acquired disability.</p> <p><b>Performance</b></p>	<p>Coaches should be aware of the different contexts and how it can impact the psychosocial outcomes for their athletes.</p> <p>Coaches should also be aware of other participants, and that each is individual and will develop differently.</p> <p>More research should be conducted into the potential psychosocial outcomes of participating in sport for the disabled population, with the consideration of various contexts and their impact.</p> <p>The competitive nature of sport may have a negative impact of the psychosocial wellbeing of participants.</p>

	<p>Campbell and Jones (2002), conducted a study with an international elite men’s wheelchair basketball team, examining the psychological aspect of performance, stress. Findings highlighted a number of stressors both directly and indirectly related to competition participation “pre-event concerns, negative match preparations, oncourt concerns, and postmatch performance concerns” (pp.95-96).</p> <p>Weiss, Diamond, Demark and Lovald (2003) found that participation in the Special Olympics (SO) was having a positive impact on psychological well-being. (Participants in this study had an average age of 24.9 years).</p> <p>A more recent study conducted with Special Olympics athletes (Crawford, Burns and Fernie, 2015) revealed a positive relationship between participation and stress, self-esteem and life quality indicating that there are psychosocial benefits for athletes who participate in SO.</p> <p>In relation to Paralympics, Banack et al (2011) conducted a survey with Paralympians exploring their psychological needs, motivations and autonomy-supportive coach behaviour. They found that athletes’ motivation, (a psychological factor) was not influenced by social aspects such as the social environment.</p>	
<p>Psychosocial outcomes as a result of sport participation in relation to age</p>	<p>Psychosocial outcomes may vary depending on the age of the athletes being coached or participating in the sport.</p> <p><b>Youth</b></p> <p>Özer, Baran, Aktop, Nalbant, Ađlamiř and Hutzler (2012) explored the impact on youth athletes of taking part in a Special Olympic soccer programme. They found that participation had a positive effect on participants’ social competence.</p>	<p>Coaches should be mindful that the which are the most beneficial psychosocial outcome may depend on the age of their athletes.</p> <p>Coaches should promote positive psychosocial outcomes in an effort to contribute towards a positive sporting experience for athlete with a disability, encouraging them to continue their participation.</p>

	<p>A notable finding in relation to youth athletes is their commitment to and enjoyment of a sport, can be influenced by psychosocial factors such as; motivation, perception of personal physical ability and friendships (Martin, 2006A).</p> <p><b>Adults</b> According to Barak et al, (2016) there has been a lack of research surrounding psychosocial outcomes of participating on sport for adults with a disability. Therefore, they conducted a study with boccia players (mean age of 46.46), taking part in a rehabilitation programme using boccia. Their results indicated that taking part in physical activity had a positive effect on participants' psychosocial wellbeing.</p> <p><b>Older adults (65+)</b> Gayman, Fraser-Thomas, Dionigi, Horton and Baker (2017) carried out a systematic review of ten studies that explored psychosocial outcomes for participants aged 65 and over as a result of participating in sport. Seven of the studies included in the review found sport participation for older adults resulted in positive psychosocial outcomes, whilst to studies highlighted both positive and negative outcomes.</p>	<p>Those with an impairment should be encouraged to take part in sport and continue participation throughout their life, as the majority of research indicated physical activity had a positive impact on psychosocial wellbeing.</p>
<p>Positive Youth Development (PYD)</p>	<p>Positive youth development is a framework that focusses on aiding youth to enhance their current skills strengths (Armour and Sandford, 2012; Turnnidge et al, 2014). Researchers have identified sport as a vehicle to promote PYD (Fraser-Thomas, Côté and Deakin, 2005; Turnnidge, Côté and Hancock, 2014).</p> <p>Part of PYD also places emphasis on developing relationships and being part of a community (Vella, Oades and Crowe, 2011), which can aid development of social skills for athletes. One relationship vital for coaching process if that of the athlete and the coach. Part of a coaches' role should be to aid the</p>	<p>Coaches need to identify strength and skills of their athletes – then assess how they can aid their development.</p> <p>Coaches and athletes should communicate with one another to establish goals that will be effective in developing an athlete.</p> <p>It is vital for coaches to identify how PYD can be integrated into their practice if it is not already.</p>

	<p>development of their athletes and promote learning (Cote and Gilbert, 2009). They “should be responsible for positive youth development” (Vella et al, 2011, P.34). However, Gould and Carson (2008) stated that a lack of coach education can lead to positive youth development not being promoted within the sport setting.</p> <p>Aspects of positive youth development in sport can include: increasing self-confidence and esteem, developing life skills, setting goals, physical wellbeing and developing healthier habits (Gould and Carson, 2008).</p>	<p>NGBs and other organisations should encourage coaches to promote positive youth development.</p> <p>As explored earlier in this literature review, the lack of coach education is prevalent in disability sport. Therefore, this could lead to coaches not implementing PYD for athletes with a disability further increasing the disparity between disability and mainstream sporting contexts.</p>
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<p>4.4.2 Benefits of Participation</p> <p>The following section highlights the benefits to para athletes, as a result of participation in sport. This includes development of life and social skills, as well as increased self-confidence and independence.</p>		
Key Principles	Supporting Literature	Implications
<p>Through sport, athletes can develop skills to use in wider life</p>	<p>There has been a numerous studies conducted in relation to the development of life skills through participation in sport in the context of able-bodied sport (Camire, Forneris, Trudel and Bernard, 2011; Cope, Bailey, Parnell and Nicholls, 2017; Cronin and Allen, 2018; Gould, Collins, Lauer and Chung, 2007; Gould and Carson, 2008; Pierce, Kendellen, Camiré and Gould, 2018). Less research surrounding this topic has been conducted in the disability sporting context.</p> <p>There are similarities between developing athletes’ life skills in the two contexts, yet there is an added layer of complexity for athlete with an impairment and the addition life skills they may need to develop. In their study, Tawse et al (2012) found that</p>	<p>Coaches should educate participants on how they can use skills developed in a sporting context, throughout wider life.</p> <p>Transferrable skills could be highlighted to athletes.</p> <p>Coaches should not underestimate their role as a coach in disability sport. As previously stated it has many layers and is much more complex than just coaching sport which is shown by the ability for it to enhance life skills of participants.</p>

	<p>coaches helped their athletes with “basic life skills, such as personal care issues” (p.215) They also stated that coaches believed that importance should be placed on developing these life skills rather ‘competitive outcomes’.</p>	
<p>Sport can help athletes develop their social skills and relationships</p>	<p>Goodwin, Johnston, Gustafson, Elliot, Thurmeier and Kuttai, (2009) found that athletes participating in parasport felt a sense of community and found an improvement in social skills.</p> <p>Interpersonal skills have been described by a number of academics as especially important in disability sport, as a result of this complex context (Tawse et al, 2012; Falcão et al, 2015; Allan et al, 2019).</p>	<p>Coaches should be mindful of providing these opportunities for athletes, as well as being aware of how they are communicating with their athletes.</p> <p>This could be developed by coaches encouraging athletes to work in groups or even pairs.</p> <p>Athletes may have more of an opportunity to meet someone with a similar background or even impairment to themselves.</p>
<p>Confidence and self-esteem can also be developed and increased through participation in sport, facilitated by a coach</p>	<p>An athletes’ confidence can increase through participation in sport. Moreover, it is important to consider the huge impact a coach can have on an athletes confidence (Martin and Whalen, 2014).</p> <p>A study conducted by Pack, Kelly and Arvinen-Barrow (2017) found that confidence initially increased, as a result of improvements in athletic performance. This then had a knock on effect; which gave them more self-belief they could achieve outside of sport.</p> <p>Banack et al, (2011) conducted a study with Paralympic athletes, who stated they felt more confident once they were part of a sporting society. This sense of belonging was also associated with confidence by Darcy and Dowse (2013) in their study of athlete with ID.</p> <p>However, Allan et al (2019) stated that an athletes’ confidence is also effected by their coach and their behaviour.</p>	<p>Coaches should ensure they are providing an environment for this to occur and that they are encouraging and positive.</p> <p>Coaches must not underestimate the importance of facilitating athletes to increase their confidence, especially when working in disability sport as it can have a profound impact on the athletes life outside of sport also.</p> <p>Increased confidence could result in athlete wanting to continue their participation in sport. Coaches should encourage this as in many cases it could lead to life-long participation in sport. They should therefore ensure that sessions are engaging and encourage the athletes to follow a healthy lifestyle outside of sport.</p>

		<p>Coaches must be mindful of their behaviour in order to avoid having a negative impact on athletes' confidence.</p> <p>Coaches could promote team cohesion in order to ensure athletes feel they are part of a community.</p>
Development of independence for athletes	<p>Coaches in a study conducted by Tawse et al (2012) found it important to use sport as a method to develop athletes' independence.</p> <p>Participation in sport provides a platform for athletes with a disability to develop their independence (Pack et al, 2017), as also stated in Goodwin et als (2009) study of wheelchair basketball players.</p> <p>Cregan, Bloom and Reid (2007) found that developing athletes' independence had a positive impact on both their sporting and wider lives.</p> <p>This was further explored by Darcy and Dowse (2013), who found a connection between athletes' increased independence and family relationships; relationships improved as athletes became more independent at is allowed them to have some time apart from each other.</p>	<p>Developing athletes independence should not be ignored or underestimated by coaches, as for para athletes this can influence their wider lives in a positive manner.</p> <p>The development of independence, could also lead to a boost in confidence for some athletes.</p> <p>Athletes may have the opportunity to become less reliant on others for certain activities, such as being driving to training or competition, and so it could open up more opportunities.</p> <p>Coaches to ensure that they are providing athletes with autonomy and opportunity to develop their independence. (This could be directly linked to the sporting activity, or an external factor such as transport).</p>
Sense of achievement	<p>Participating in sport can provide athlete with a sense of achievement. Darcy and Dowse (2013) found that all athletes – recreational and elite levels, felt this sense of achievement and pride.</p>	<p>Coaches can help athletes to set goals so that they have something tangible to aim towards.</p>
Enhanced Quality of Life	<p>Participation in sport can improve the quality of life for those with a disability (Patterson and Pegg, 2009).</p>	



#### 4.4.3 Classification

This section outlines the basics of classification and highlights specific principles coaches of para athletes should be aware of.

Key Principles	Supporting Literature	Implications
Defining classification	<p>Classification is the grouping of athletes based on the level of activity limitation as the result of an impairment (International Paralympic Committee).</p> <p>Para athletes are assigned to specific groups named ‘sport classes’. Sport classes allow athletes with a similar activity limitation, to compete together (International Paralympic Committee) on an “equal playing field” (Burkett, 2013).</p> <p>The aim of classification is to reduce any possible impact that an athletes impairment may have on performance. Minimum disability criteria is the severity of an impairment in relation to eligibility and is defined through scientific research (International Paralympic Committee).</p>	Coaches and athletes should have an understanding of classification and the process.
Classification Process	<p>Classification steps:</p> <ol style="list-style-type: none"> <li>1. Does the athlete have an eligible impairment for this sport?</li> <li>2. Does the athletes’ eligible impairment meet the minimum disability criteria of the sport?</li> <li>3. Which sport class describes the athletes’ activity limitation most accurately?</li> </ol>	

	The above athlete evaluation is completed by a classification panel prior to and/or during competition (International Paralympic Committee).	
Eligible Impairments	<p>There are <b>10</b> types of impairment that are eligible:</p> <ol style="list-style-type: none"> <li>1. Impaired muscle power</li> <li>2. Impaired passive range of movement</li> <li>3. Limb deficiency</li> <li>4. Leg length difference</li> <li>5. Short stature</li> <li>6. Hypertonia</li> <li>7. Ataxia</li> <li>8. Athetosis</li> <li>9. Vision impairment</li> <li>10. Intellectual impairment</li> </ol> <p>(International Paralympic Committee)</p>	Coaches should be aware and have some knowledge of their athletes impairments and how it can affect their sporting performance and training.
Sport Specific	<p>Classification is sport specific meaning some sports allow athletes with any impairment to compete whilst others are specific to one or a few impairments (International Paralympic Committee).</p> <p>Additionally, the classification system of each parasport varies (Dornick and Spencer, 2020) to account for the specific effect an impairment may have on performance in that particular sport (Mann and Ravensbergen, 2018).</p>	Coaches must have knowledge of the impairment types eligible for their sport.

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