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Managing parasport: An investigation of sport policy factors and stakeholders influencing para-athletes' career pathways

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ABSTRACT

The way disability is understood and positioned by key stakeholders informs how policies are implemented in the development of pathways to sporting excellence of an athlete with a disability. In this paper, the authors seek to identify which sports policy factors and stakeholders influence the development of athletic career pathways in Paralympic sport (i.e., attraction, retention, competition, talent identification and development, elite, and retirement phases). Drawing from the theories of disability and the literature on elite sport policy, an interview protocol on policy dimensions and principles to support para-athletes' development was created, and 32 key stakeholders from the Brazilian Paralympic sport context were interviewed. The data revealed that coaching provision and education as a policy factor and coaches with disability-specific knowledge as a stakeholder were perceived as most influential during all the phases of para-athletes' careers. The classification system emerged as a parasport-specific factor that can facilitate or inhibit the development of para-athletes' careers, influencing the implementation of policies. The authors suggest that understanding the concept of disability is notably essential when stakeholders have to think strategically and adapt management principles from able-bodied sporting contexts. Therefore, critically positioning disability within policy decision making can improve the thinking, action, and behaviour of policymakers, coaches, and sports managers, leading to the more efficient delivery of successful para-athletes' careers.

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1. Introduction

The increased interest among nations to win medals in major international competitions has stimulated researchers to better understand elite athlete development (De Bosscher, Bingham, Shibli, van Bottenburg, & De Knop, 2008; Sotiriadou & Shilbury, 2009). In general, elite athlete development includes several paths to excellence, which, due to its complexity, cannot be understood in isolation (Abbott, Button, Pepping, & Collins, 2005). These paths apply to athletes with and without a disability, regardless of the sport. Weissensteiner (2017) defined an athlete career pathway as a continuum that illustrates the way in which athlete progress through different processes, phases, transitions, and level of performance in sport (from foundation to excellence).

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There is a growing consensus that successful athletes' career pathways are the result of a combination of close interactions between the various stakeholders and organisations involved in the delivery of effective elite sports policies (Sotiriadou & Quick, 2008). In the past two decades, several international comparative studies described how elite sport policies had been shaped (e.g., Andersen, Houlihan, & Ronglan, 2015; Green & Oakley, 2001; Houlihan & Green, 2008) or analysed the development of sport policy factors influencing elite sport success in able-bodied sports (e.g., De Bosscher, De Knop, van Bottenburg, & Shibli, 2006; De Bosscher, Shibli, Westerbeek, & van Bottenburg, 2015). None of these studies, however, have addressed the influence of sports policy factors and stakeholders on the development of athletes in the parasport context.

Parasport is an umbrella term to accommodate both Paralympic and disability sport (Townsend, Huntley, Cushion, & Fitzgerald, 2018), which categorises sports practised by athletes with physical, visual, and intellectual disabilities (Vanlandewijck & Thompson, 2011). The Paralympic Games (PG) provide an international platform for Paralympians to compete in the second-largest multi-sport event in the world (Brittain, 2011). The Rio 2016 PG welcomed 4316 athletes from 158 countries, illustrating that the Paralympic movement has gained momentum (Forber-Pratt, 2018). Research indicated that Paralympians in preparation to participate in the PG need similar support services when compared to non-disabled athletes preparing for international competitions (Dieffenbach & Statler, 2012). However, when conceptualising para-athlete development, the complex set of social-cultural and contextual factors that play a role in the parasport system should be alluded to (Patatas, De Bosscher, De Cocq, Jacobs, & Legg, 2019). Disability in sport is currently underexplored in the literature, which impacts the available knowledge of how athletes with a disability can best be supported and developed over their careers, and consequently, impacts public policies, which are not informed by empirical results from the parasport context (Smith & Bundon, 2018; Wareham, Burkett, Innes, & Lovell, 2018).

Hutzler, Higgs, and Legg (2016) stressed that even though interest in parasports is increasing, only a few attempts have been made to examine the factors that facilitate or inhibit the development of para-athletes' career pathways. Both Martin (2013) and Townsend, Smith, and Cushion (2016) argued that a limitation of the current studies is that they are little informed by models of disability and as a result, lack a critical understanding and construction of disability in the sporting context. We fill the aforementioned gaps by identifying which sports policy factors and stakeholders influence the development of athletic career pathways in Paralympic sport, more specifically in the Brazilian Paralympic sport context. Given the importance of the socio-cultural context in parasport, the social relational model of disability (Reindal, 2008; Thomas, 2004) will be applied to analyse the perspectives of different stakeholders as this model underpins how disability is understood in relation to the social structure and cultural discourses concerning the sport (Townsend et al., 2018). In this study, the perceptions and experiences of the primary stakeholders who are responsible for recruiting, retaining, and developing para-athletes (including high-performance directors, sport managers, coaches, and policymakers) are critically analysed. The following research questions were used as guides in the study:

Research Question 1: Which sport policy factors facilitate or inhibit each phase of para-athletes' career pathways (i.e., attraction, retention, competition, talent identification and development, elite, and retirement)?

Research Question 2: Which stakeholders facilitate or inhibit each phase of para-athletes' career pathways (i.e., attraction, retention, competition, talent identification and development, elite, and retirement)?

2. Literature review

2.1. Sport policies and para-athlete development

A plethora of studies in the sport policy literature have attempted to identify key policy factors that influence the elite sport performances of countries (e.g., Andersen et al., 2015; Bergsgard, Houlihan, Mansget, Nodland, & Rommetveidt, 2007; Böhlke & Robinson, 2009; De Bosscher et al., 2006, 2015; Digel, Burk, & Fahrner, 2006; Green & Houlihan, 2005). A general conclusion from these studies is that elite sport systems are conceptualised by a similar model of elite sport development with minor variations in the way elite sport policy is implemented in different countries and contexts (De Bosscher, Shibli, Westerbeek, & van Bottenburg, 2016; Houlihan & Green, 2008). This entails that "the basic raw ingredients of the recipe might be common in broad terms, but the combinations in which they are mixed are diverse. Much of this diversity appears to be driven by social, cultural, and political factors" (De Bosscher et al., 2016, p.70). National sport policies that explicitly target the development of para-athletes are the fundamental focus of this study; therefore, we used the sport policy literature as a guide to understanding sport policy factors that influence the career development of an athlete.

One study in particular was important in guiding this research, as it is comprehensive in terms of covering the sport policy factors that are considered necessary across the trajectory of athletic development from foundation to retirement (Brouwers, Sotiriadou, & De Bosscher, 2015; Hutzler et al., 2016; Shilbury, Sotiriadou, & Green, 2008). The SPLISS framework (*Sport Policy Factors Leading to International Sporting Success*) (2015, De Bosscher et al., 2006), is based on an extensive review of the literature and is grounded in two premises. The first is that sporting success can be developed. The second is that factors determinative of international success occur at three levels: macro (environment), meso (policy) and micro (talent). However, it is only at the meso level that success can be cultivated (De Bosscher et al., 2015). It was empirically tested in six countries (SPLISS 1.0) and later further explored and refined in an international comparison of 15 countries (SPLISS 2.0). The

framework encompasses nine pillars (or sport policy dimensions) that influence international sporting success; it also specifies 31 sub-dimensions and 96 critical success factors as critical elements within pillars that are necessary to improve the elite sport success of a nation (De Bosscher et al., 2015). The nine sport policy dimensions derived from the SPLISS framework are: (a) financial support; (b) governance, organisation, and structure of sport policies; (c) foundation and participation; (d) talent identification system and talent development; (e) athletic career support and post-career support; (f) training facilities; (g) coaching provision and coach development; (h) (inter)national competition; and (i) scientific research and innovation.

Nevertheless, similarly to other elite sport policy studies (e.g., Bergsgard et al., 2007; Digel et al., 2006; Houlihan & Green, 2008; Oakley & Green, 2001), and despite its comprehensive perspective, the SPLISS framework (De Bosscher et al., 2006, 2015), presents a generic model at an overall sport level (directed toward able-bodied sports). It has not been adapted toward identifying sport policies in a parasport-specific context, and thus it can only offer insights into how parasport-specific policies that facilitate athlete development might be developed. In order to provide parasport-specific insights, the research on elite sport policy needs to take into account the broader context of parasport, which is necessary to understand para-athlete development. (Dowling, Brown, Legg, & Beacom, 2018). For instance, the influence of the classification system in parasport, which allocates athletes in a sport-specific system, based on categories according to their functional abilities that may directly influence policy implementation and athlete's development (Tweedy & Vanlandewijck, 2011).

In addition, Patatas, De Bosscher, and Legg (2018) argued that sport policy targeting the development of para-athletes' career pathways are notably less advanced in the parasport context. As a result, the area of sport management fails in providing literature representative of parasport and people with a disability (Shapiro & Pitts, 2014). More specifically, only a few studies have attempted to address the influence of certain sport policy factors in parasport covering athletic development pathways. Most studies in the parasport literature focused on the implementation of policies towards the inclusion of people with a disability in sport participation (Hammond & Jeanes, 2017; Jeanes et al., 2018), and implementation of policies leading to the integration of parasport into mainstream sports (Howe, 2007; Kitchin & Howe, 2014). In regard to improving the development of para-athletes' career pathways, Hutzler et al. (2016) opened a dialogue on the existing gap in identifying para-athletes' pathways and establishing an understanding of the support programmes for athletes with a disability.

Given that no model exists in the academic literature that defines how sport policies influence the development of athlete pathways in parasport, the SPLISS framework (De Bosscher et al., 2006, 2015) informed this study as a starting point to cluster policy dimensions. It is imperative to bear in mind, however, that the approach adopted in this study thereby contends that the parasport domain is unique and its characteristics should not be disregarded or ignored when applying pre-determined frameworks (Dowling et al., 2018). In that sense, the SPLISS framework, along with the social relational model, will theoretically position this study and its findings to provide a number of policy recommendations.

2.2. Athlete development pathways

Over the past decades, researchers have outlined several athlete development frameworks conceptualising how athletes move and progress across different phases of their athletic career pathway. In general, those frameworks define an athletic career as a sequence of phases with particular characteristics (Gulbin, Morley, & Weissensteiner, 2013), and layout normative (i.e., predictable and anticipated) and non-normative (i.e., unanticipated and involuntary) transitions (Stambulova & Wylleman, 2014; Wylleman, Alfermann, & Lavallee, 2004). The phases described in those frameworks are generally defined, for instance, as attraction or initiation, retention or nurturing, talent identification and development, elite or mastery, and retirement or transition out of sport (e.g., Balyi, Way, & Higgs, 2013; Côté & Fraser-Thomas, 2007; Green, 2005; Gulbin et al., 2013; Sotiriadou & Quick, 2008; Wylleman, 2019). However, except for the Long-Term Athlete Development model proposed by Balyi et al. (2013), which recognised the need for creating awareness about parasport and people with disabilities prior to attraction to sport, and the preliminary investigation of Patatas and De Bosscher (2017) that explored how the phases of athletic career pathways in Paralympic sport could be developed, none of the athlete development frameworks address para-athlete development.

Even though the existing athlete development frameworks are not designed to address multidisciplinary environments of the parasport context, nor do they take into consideration the disability-specific factors that may influence para-athlete development (Dehghansai, Lemez, Wattie, & Baker, 2017), they can provide useful information for initial insights into the description of the various development phases, transitions, and organisational perspectives. As there exists little empirical research addressing para-athlete development, the phases of para-athletes' career pathways adopted in this study have derived from the insights underpinned by the athlete development models found in the literature. On that note, recent studies have pointed to the need for a holistic approach that takes into account the lessons learned from able-bodied sports complemented with the lessons from the specific parasport context in order to implement and deliver successful para-athletes' pathways (Patatas et al., 2018). Indeed, a review of the inherent challenges, differences, opportunities, and implications concerning the parasport system is currently lacking and deemed necessary (Dowling et al., 2018).

3. Theoretical underpinning

3.1. Theorising disability in the context of sport

It is crucial to understand the concept of disability, which is a complex and contested social construct (Thomas & Smith, 2009), in order to transfer best practices and principles from elite sport policy to support para-athletes' development (Paulson & Goosey-Tolfrey, 2017). An essential first step towards understanding disability in the sport context, and consequently, in para-athletes' development, can be found in exploring the general models of disability that have informed particular ways of thinking about disability (Martin, 2013; Reindal, 2008; Smith & Bundon, 2018; Townsend et al., 2016; Wareham et al., 2018). These models include the social, the medical, and the social relational model of disability. In the past decades, the social and medical models have been primarily used to enlighten how disability can be understood (Wareham et al., 2018). The social model identifies disability as a social issue, focussing on external barriers that limit access to sport opportunities and inclusion of people with a disability in the sport context (Smith & Bundon, 2018). A limitation of this model, however, is the outdated ideology which reinforces a minority political view when neglecting that the disability does not belong to the individual's bodies, but the society (Shakespeare, 2006). The medical model largely focuses on the impairment itself and assumes that disability is only a physical limitation (Fitzgerald, 2012; Townsend et al., 2016) with a negative connotation in which a person is in constant need for medical intervention (Martin, 2013). Even though the medical model is widely used to explain how disability is perceived and described in several sporting contexts (Brittain, 2004), a critique of this model is that it can induce stigmatisation (Howe, 2008), primarily via the classification system of Paralympic sports (Reindal, 2008).

As both the medical and social models represent extreme positions and are mutually exclusive (Martin, 2013), some authors acknowledge an increasing need for a more holistic way for understanding disability, especially within the sporting context (Smith & Bundon, 2018; Thomas, 2004). The social relational model, therefore, acknowledges the biological influence of the disability on physical activity and sport, while recognising the particularities of each cultural and social context in a sport environment (Martin, 2013). Hence, the model incorporates and combines the advantages of both medical and social models (Martin, 2013). The model has been reported in the literature as the most relevant model to support policy-related work in disability studies (Thomas, 2004). This study, therefore, used the social relational model as a lens to identify parasport-specific factors that facilitate or inhibit the development of an athletic lifespan of athletes with a disability in Brazil. The social relational model informed this research as a useful tool to produce knowledge informing policies on successful para-athletes' pathway development.

4. The context of Brazil

As the study was conducted within the Brazilian Paralympic sport system, it is important to briefly outline the context in which it took place. The Brazilian Paralympic Committee (BPC) was created in 1995 and since then has been performing a dual role in the Brazilian Paralympic sport system – namely to promote parasports from its foundation to high-performance, and to promote the inclusion of people with disabilities in society. Over the past 20 years, Brazil has achieved unprecedented success in Paralympic sport, finishing among the top ten countries on the overall medal table in the last three editions of the PG (2008, 2012, and 2016). An exponential rise of a developing country on the PG's medal table (e.g., ranked 37th in Atlanta 1996 to 8th in Rio 2016) is a compelling case for investigation. Following the Rio 2016 PG, parasport has gained attention in the national political sphere and the management of Paralympic sport in Brazil has become a potential benchmark for success (De Martin-Silva, Calábria-Lopes, & Patatas, 2013). The current Brazilian parasport policy system, especially the public funding support and the development of training facilities in the country, allows elite para-athletes to dedicate themselves exclusively to their athletic career (Haiachi, Cardoso, Reppold Filho, & Gaya, 2016).

While several authors have referred to the context specificity of sport systems and a country's unique situation (De Bosscher et al., 2016), some elements from the Brazilian parasport system may be generalisable through transferability (Smith, 2018) to other countries with similar parasport systems. The generalisability of this research can be defined as "occurring whenever a person or group in one setting consider adopting something from another that the research has identified" (Smith, 2018, p. 140). This study also further expands the literature on disability sport, in which Shapiro and Pitts (2014) have noted that the predominance of the literature on disability sport originates from wealthy western countries. Therefore, this study may illustrate what similarities and differences can occur with other countries in relation to parasport.

5. Method

For the purpose of this study, a sport system was considered not as a natural phenomenon, but rather as a product of human decision-making processes and intersectoral cooperation (Hatch & Cunliffe, 2013). This entails the idea that sport systems are perceived through a constructivist ontological orientation (Sparkes & Smith, 2014), given that these systems are constructs of human interaction. The constructivism worldview has informed this qualitative exploratory study.

Combining elements of stakeholder theory from a managerial perspective as suggested by Freeman (1984) and Friedman, Parent, and Mason (2004), this study intended to focus on the perspectives of individuals who can affect an organisation (or system) and their strategic behaviour to elicit changes in a given organisation (or system). By means of semi-structured

interviews, participants who develop, influence, and shape the Brazilian parasport system and sport policies (e.g., coaches, high-performance directors, and sport managers) have provided their understanding and perceptions on the key factors that influence the development of athletic career pathways in Paralympic sport. Data, derived through interactions with the stakeholders in the interviews, allowed exploration of (shared) perceptions and understandings that, collectively, could be considered building blocks of the parasport system. By embracing this constructivist worldview, this study adopted a bottom-up approach, using the participants' perspectives to derive broader themes and, ultimately, generate 'working theories' (Creswell & Plano Clark, 2017). This approach enabled the identification of critical factors that were reported to be of vital importance for the development of Brazilian para-athletes' career pathways.

5.1. Participants

A total of 32 stakeholders from the BPC participated in this study, including policymakers, high-performance directors, sport managers/coordinators, national coaches, head coaches, and classifiers from five sports: para-athletics, para-swimming, para-powerlifting, wheelchair basketball, and goalball. The mean age of the participants was 41.9 ± 10.1 years old and mean years of sporting experience was 18.4 ± 6.9 years. The sample was purposively selected through a maximum variation strategy to guarantee the representation of individuals with high levels of expertise on the topic under investigation (Sparkes & Smith, 2014). The primary researcher contacted the BPC to enlist their help with the recruitment process. The inclusion criteria required study participants to be stakeholders who were actively involved in recruiting, identifying, and developing para-athletes in Brazil. Table 1 presents an overview of the participants, including their role and sex.

5.2. Data collection

Following the approval of ethical procedures granted by the institution review board authorising this research (ECHW_034), 32 face-to-face, semi-structured interviews were conducted. The interview protocol was developed and pilot-tested with a panel of three academics with considerable expertise in the Brazilian parasport context to refine the interview questions and ensure content validity. Revisions in the interview protocol were made based on their feedback. Before commencing the interviews, all participants were given an information sheet about the nature of the research, and the confidentiality of the participants' responses and identity.

Each interview consisted of two parts in which open-ended questions were posed to acquire detailed data about which (para)sport policy factors and stakeholders they perceived as important and influential in the development of each phase of athletic career pathways in Paralympic sports (i.e., attraction, retention, competition, talent identification and development, elite, and retirement). In the first part, participants were asked to identify parasport-specific policy factors, general sport policy factors, and stakeholders that would come 'top of mind', based on their own experiences in developing para-athletes' pathways. This was meant to inductively build the elements that compose parasport policies. In the second part, participants were asked to further elaborate on the policy dimensions of the SPLISS framework. As the policy dimensions of the SPLISS framework were identified in the literature as important policy factors that influence the development of athletic pathways, this framework was used to guarantee that the participants would not oversee any essential factors and to provide depth to the investigation. Within each dimension, we further elaborated on how and to what extent each factor was important for each phase of athletic career pathways in Paralympic sports. Examples of open questions used during the interviews included: 'Which (para)sport policy and which stakeholders are involved in each phase of para-athlete development pathways?', 'What is the role and/or specific characteristics of these policy factors and stakeholders in each of the phases of para-athlete development pathways?', 'What strategies or programmes are used for para-athlete development?', 'At what pathway career phase is each of these (para)sport policy factors and stakeholders most influential?' Based on their responses, follow-up questions were asked to explore how the interviewees interpreted these policy factors and stakeholders as facilitators or inhibitors in the development of Brazilian para-athletes' career pathways.

Table 1

Overview of the interviewed Brazilian Paralympic stakeholders.

Role	Stakeholder Code/Sex
Policymaker (n = 4)	01 (M), 08 (M), 24 (M), 25 (M)
High-Performance Director (n = 4)	02 (M), 03 (M), 06 (M), 07 (M)
Sport Manager/Coordinator (n = 8)	04 (M), 05 (F), 09 (M), 14 (M), 16 (F), 19 (M), 20 (M), 23 (M)
National Coach (n = 9)	10 (F), 11 (F), 22 (M), 26 (M), 27 (M), 28 (M), 29 (M), 30 (M), 32 (M)
Head Coach (n = 5)	12 (M), 15 (F), 17 (M), 18 (M), 21 (F)
Classifier (n = 2)	13 (F), 31 (M)
N_{Total} = 32	N_{Male} (M) = 25
	N_{Female} (F) = 7

5.3. Data analysis

The interviews lasted on average 45 minutes and were audio-recorded. All interviews were conducted in Portuguese and recordings were manually transcribed verbatim in the original language and resulted in a total of 216 pages of double-spaced verbatim transcripts. The next step was to translate the interviews into English to conduct the data analysis and use participants' quotations to illustrate the results of the study. In order to ensure the precision of the translation, the researcher conducted the back-translation technique (Brislin, 1970).

The data were entered into the qualitative data analysis software NVivo 11 to organise and manage the thematic analysis. Deductive and inductive reasoning guided the data analysis providing a complete understanding of the topic under research (Sparkes & Smith, 2014). The interaction between both reasonings acknowledges the creative process of interpretation when applying a theoretical framework to participants' experiences (Sparkes & Smith, 2014). The thematic analysis started by taking the policy dimensions of the SPLISS as a coding framework to deductively code the sport policy factors for each of the phases of athletic careers pathways as identified by the interviewees. This approach is known as a top-down or theoretical thematic analysis (Braun & Clarke, 2006). Successively, thematic analysis as an inductive bottom-up approach, that was driven by the data itself (Braun & Clarke, 2006), identified new codes and themes that were not included in the SPLISS framework (i.e., stakeholders and parasport-specific factors). Considering the linkages with the social relational model, when a theme that was not included in the SPLISS framework emerged, a new code was assigned and a description of what the new code meant was added (Braun & Clarke, 2006; Flick & Gibbs, 2007). The data were systematically coded to create a code tree that resulted in an initial set of specific parasport policies and stakeholders (see Table 2). This included all the factors that facilitate or inhibit the development of para-athletes' career and the stakeholders influencing each phase of athletic pathways in Brazil. To alleviate potential researcher bias, the authors resorted the assistance of a group of academics acting as 'critical friends' to identify whether the themes were consciously chosen and properly categorised (Smith & McGannon, 2017; Smith, Bundon, & Best, 2016).

6. Results

This study aimed to identify which sport policy factors and stakeholders influence the development of athletic career pathways in Paralympic sport. The results of this study present an overview of factors and stakeholders that can facilitate or inhibit the development of para-athletes and influence each phase of an athletic lifespan in Brazil, according to the participants (see Table 2). The social relational model of disability guided the interpretation of the factors and stakeholders and their perceived influence in the parasport context. The biological aspects of disability and the social-cultural barriers to participation, which are facets embedded in this context, support the use of the social relational model of disability. The classification system emerged from the interviews as a parasport-specific factor that influences the para-athletes' career in its entirety. Even though classification is widely described in the literature as an essential contextual factor that has many implications for sport policy, in this paper, it will be treated as a factor that can, at a certain point, be influenced by sport policies as the classification system belongs to the environment of parasport systems. The results will be presented according to the sequential phases of athletes' development, from attraction to retirement.

6.1. Attraction phase

The attraction phase is the athlete's first contact with the sport, in which sport opportunities will be available depending on each disability type. Accordingly, in the parasport context, this first contact is, most likely, linked to the rehabilitation process and should aim to increase people's awareness of available sport opportunities for people with a disability. Although organisations such as rehabilitation centres and special needs schools can be considered as primary stakeholders in the process to attract people with a disability to parasport, some problems are identified, as Stakeholder 9 stated:

For athletes with acquired disability, the place where they commonly start in sport is at the rehabilitation centre. However, many of the centres do not even offer sports and do not have professionals who are sufficiently qualified to introduce them to the sports practice, so that is a huge problem! We often lose great opportunities there.

The quote above represents a concern raised throughout the interviews, in which the participants emphasised the enduring and robust connection of the attraction phase to the medical model of disability, in which the disability is perceived solely as a barrier to participation in sport. This is particularly the case at rehabilitation centres, where the biological aspect of the disability is perceived as a limitation to participate in sport. The participants suggested that policies aiming to raise awareness and to qualify the professionals working at rehabilitation centres would facilitate the process to include people with disabilities into the sport practice. In doing so, there would be a larger pool of people with disabilities attracted to the sport and more potential talents to be identified in the next phases of the athletic career.

Coaching provision and education were pointed out by the interviewees as the most influential factors in the attraction phase. For example, "the coaches are one of the main stakeholders of the para-athletes' pathways, from the beginning to the end of their careers" (Stakeholder 23). The participants suggested that investments in programmes and policies aiming to provide qualification for regional coaches at the beginning of para-athlete's pathways seem necessary, "mainly to ensure that those coaches will have expertise and knowledge to coach athletes with any disability type during all phases of their careers"

Table 2

Overview of factors that facilitate or inhibit the development of para-athletes' career and the stakeholders influencing each phase of athletic pathways in Brazil as perceived by the participants.

Attraction Phase		
Sports Policy Factors	Stakeholders	Codes
Coaching Provision & Education	Coaches with disability-specific knowledge, PE teachers	Qualified coaches with knowledge about different disability types and parasport to receive persons with a disability in clubs, schools, rehabilitation centres
Classification System	Classifiers	Need for a reliable classification process from the start to avoid drop-outs and facilitate progress through the next phases of para-athlete' sporting careers
Accessible Training Facilities	Sport clubs, Schools	Improve accessibility at the training facilities as well as access to accessible transportation services
Foundation & Sports Participation (first contact with parasport)	Health personnel, Special need schools, Rehabilitation centres, Support Staff, Caregivers	Creation of opportunities to sport participation in clubs, rehabilitation centres and special need schools to increase the number of people with a disability attracted to parasport
Financial Support	Family	Financial support at the beginning of the para-athlete career to cover costs related to sport participation. High costs of equipment may constrain attraction to parasport Para-athletes rely on private investments (own savings, financial help from third parties or family) Parasport requires expensive adapted sports equipment (prostheses, wheelchairs) and the need for technology
Organisation & Structure of Parasport	NPC, Local Sports Organisations	Involvement of (able-bodied) sports organisations and implementation of policies in the dissemination of information about parasport to promote attraction to the sport
Retention Phase		
Sports Policy Factors	Stakeholders	Codes
Coaching Provision & Education	Coaches with disability-specific knowledge, Sports Federations	Investments in education and training for coaches to improve disability-specific knowledge for coaching athletes with different disability types
National Competition	NPC, Sport Federations	Participation in regional and national competitions from the beginning of para-athletes' career aiming the development of athletic skills
Classification System	Classifiers	Minimum disability, class profile, less competitive sports classes are factors that facilitate the retention of athletes in parasport and the transition to TID phase
Financial Support	NPC, Family	Financial support for stay in the sport, purchase of equipment, and participation in regional and national competitions
Foundation & Sports Participation (Awareness raising)	Sports clubs	The offer of parasport-specific programmes and incentives to increase the awareness in clubs to develop parasports and receive athletes with a disability
Accessible Training Facilities	Coaches with disability-specific knowledge, Sports clubs	Nearby accessible training facilities
Competition Phase		
Sports Policy Factors	Stakeholders	Codes
Coaching Provision & Education	Coaches with disability-specific knowledge	Qualification of coaches to start talent identification of potential athletes during participation in competitions
Regional and national competitions	NPC, Sport Federations	Para-athletes may start participating in competitions in the early phases of athletic pathways. Importance of maintaining a fixed and constant competition calendar
Classification System	Classifiers, NPC	Reliable classification processes in regional/national competition to avoid future changes in international classification. Training for national classifiers to maintain a reliable classification process
Financial support	Sport Federations, Government, Sport Clubs, Family	Financial support to participate in competitions and for suitable equipment to improve training and to participate in competitions
Talent Identification and Development Phase		
Sports Policy Factors	Stakeholders	Codes
Coaching Provision & Education	National coaches	Qualified national coaches to identify talented para-athletes in competitions, during training, sport clubs Following identification access to appropriated training methods according to each disability type

Table 2 (Continued)

Talent Identification and Development Phase		
Sports Policy Factors	Stakeholders	Codes
National Competition	NPC	Promotion of more national competitions to increase talent identification
Classification System	Classifiers, Coaches	Classification influencing the identification of talented para-athletes and the transition to elite phase
Talent ID & Development	NPC, National coaches	Development of evidence-based processes to identify new talents specific for parasports
Financial Support	NPC	Investments in the development of structured TID programmes specific for parasport
Athletic Support	NPC, Sport Federations	Investment in coach qualification to improve talent identification Talented para-athletes start to receive more support to maintain in sport and transition to elite phase
Elite Phase		
Sports Policy Factors	Stakeholders	Codes
Financial Support	NPC, Government	Financial support is essential for elite para-athletes to be focused and to devote themselves exclusively to their sporting career Financial support to invest in team structure, qualified personnel, participation in international competitions, training facilities and equipment Investments in courses and training for coaches (improve training methods) and classifiers (ensure reliable national classification)
Coaching Provision & Education	National Coaches	Provision of qualified national coaches to develop efficient training methods tailored to each disability type to deliver successful elite para-athletes
Organisation & Structure of Parasport	NPC, Government	National government through the Ministry of Sports funding Paralympic sports (in a smaller proportion than Olympic sports) National Paralympic Committee as the organisation responsible for elite parasports
(Inter)national Competition	NPC, Federations, Classifiers, IPC	Participation in an international competition aiming the development of para-athletes in the elite phase Vital to get to know the opponents, develop psychological skills (e.g. coping with stress), test the training methods and focus on medal-winning
Accessible Training Facilities	Qualified Coaches, NPC Support staff team, Medical/health team, Sport Scientist	Appropriate training facilities and access to high-quality equipment and technology
Classification System	Inter(national) Classifiers	Investments and supports provided to a para-athlete are directly influenced by their classification - athletes with more chances of winning medals receive more investments
Athletic Support	Support staff team, Medical/health team, Career Manager	Team structure as a multi-disciplinary team providing the necessary support for elite athletes (coaches, physiotherapists, physiologist, psychologist, nurses, doctors)
Scientific Research	Universities, Sport Scientist	The use of scientific research to boost results and aiming to integrate it with practice Development of programmes focused on coach education - development of courses and qualification programmes
Retirement Phase		
Sports Policy Factors	Stakeholders	Codes
Financial Support	Government	Financial support for the preparation to career transition (education, job qualification, financial guidance)
Post-career Support	NPC, Universities	Development of career transition programmes specific for parasport based on the para-athletes' needs
Classification System		Changes in classification or ineligibility resulting in premature career termination

(Stakeholder 14). The same idea was shared by Stakeholder 2, who highlighted that “it is important to have a qualified first coach because the first contact with the sport can influence the full experience of an athlete”. Yet, the interviewees also emphasised the importance of an efficient foundation with good coaches in the attraction phase because it influences the later development of a para-athlete pathway. For instance, “if the foundation is not stable, there will be no good results in the future. For all phases of an athlete pathway, good professionals are needed, but at the foundation, it is even more important” (Stakeholder 17). Based on that, Stakeholder 1 complemented by stating that “ironically, the foundation coaches are usually low paid or even volunteer-based. This happens in both Olympic and Paralympic sports systems.”

The interviewees highlighted that the classification system plays an essential role in all phases of para-athletes' pathways. The interviewees highlighted the importance of the correct classification from the start to avoid drop-outs and facilitate progress through the phases of sporting careers. There was a consensus among the participants that policies should aim to improve the national classification process, in which the National Paralympic Committee (NPC) should promote classification courses to qualify national classifiers. In doing so, the NPC can deliver a reliable classification process avoiding future changes for individual athletes. Another strategy that the NPC and sport federations should adopt is the promotion of international competitions earlier in a para-athlete's career. Stakeholder 1 explained:

What is commonly done is to ensure that they [para-athletes] will have an international classification as soon as we see potential in that athlete. The other way around can be traumatic because even if you have a good athlete, with the wrong classification, he/she will not be able to perform at the later stages.

Regarding the financial support, the following statement exemplifies that there was a consensus among the participants that during the first phase of a para-athlete's career, "they usually rely on personal funding to afford the costs related to sport participation, due to the high costs that it encompasses" (Stakeholder 3). Those costs are mainly related to the "acquisition of expensive equipment" (Stakeholder 23). On that note, Stakeholder 5 highlighted the complexity of requirements for adapted equipment adds in the attraction phase:

The need for adapted equipment is indispensable for some parasports, and at the same time, it is neither easy nor cheap to purchase. In wheelchair sports, for example, basketball, participation will not happen if the athletes do not have the specific wheelchair to play wheelchair basketball. In para-cycling, the handbikes are tailor-made for each athlete depending on the disability type. In athletics, an athlete with leg amputation will need a prosthesis to run. All equipment is custom-made, so costs are very high, which makes it often impossible to have such equipment in the attraction phase.

Concerning the organisation and structure of parasports, the interviewees generally perceived a lack of involvement of sport organisations (e.g., able-bodied sport federations, sport clubs) in the dissemination of information about parasport. Therefore, the NPC acts as a primary stakeholder in this phase and takes the lead in promoting parasport participation through the development of programmes to attract people with a disability to parasport. A typical response highlighting the latter was (Stakeholder 8):

The development of sport programmes aiming to attract people with disability to parasport should not be the exclusive responsibility of the NPC. The clubs or federations should also take up this responsibility. However, if the NPC does not do it, nobody does it.

6.2. Retention phase

The interviewees have described the retention phase as the phase during which policies and programmes are developed in order to maintain the athletes in the sport and further implement strategies or systems to identify talented athletes in the subsequent phase.

Following the attraction to parasport that best fits the disability and the functional abilities of the para-athletes, the sport participation in the retention phase, most of the times, "will switch from the rehabilitation centres and/or special needs schools to the sports clubs" (Stakeholder 5). However, the "clubs must be prepared to receive people with disability in their activities offering parasports programmes and incentives to increase the number of people with disability practising sports" (Stakeholder 24). Stakeholder 6 explained that:

After the attraction phase, the centres and schools have to send that potential para-athlete to a sport club. Then, they will search for a club, and the social barriers come into place. It is always challenging to find a club that would accept athletes with a disability after their rehabilitation. The best scenario is when the club can work and develop this para-athlete.

Similar to the attraction phase, the financial support in the retention phase is related to the lack of funding and high costs involved in parasport participation. However, besides the need for adapted equipment, in this phase, the need for guides and clubs with qualified professionals become more critical and necessary. As highlighted by Stakeholder 30:

For a para-athlete to stay in the sport, some support services are needed. He/she will need access to a club, will need funding, different kind of support depending on the disability type, for example, more support staff, guides, adapted sports equipment, and differentiated medical support. Taking athletics as an example, for the athletes with a visual disability, they will automatically need the athletes-guides.

Coach provision and education still play a vital role in the retention phase. According to the interviewees, "coaches can help the para-athlete to develop better athletic skills, therefore, improving their progress in the sporting pathway" (Stakeholder 15). All the participants agreed that having a training structure in which the clubs can offer equipment, sport material, and accessible facilities are essential for the development of para-athletes, but they also agreed that coaches with disability-specific knowledge are what has dictated positive influence on results in many parasports.

In the retention phase, the classification system will bring aspects that influence the transition to the next phase, the TID of para-athletes. Minimum disability, class profile, borderline characteristics, and less competitive sport classes will be some of the factors that influence the development of policies to keep athletes with a disability in sport and will further influence

the identification of potential talents. For example, Stakeholder 2 suggested that “even two athletes with a similar disability and equal genetic potential, but one of them does not have that ideal class profile, he/she may not manifest the best-expected performance for that particular class”.

6.3. Competition and talent identification and development phases

Participation in competitions is usually an essential part of the para-athlete career and can often start in the foundation phases of athletic pathways. Competition is also where most of the para-athletes are identified as a potential talent. Therefore, competitions and talent identification phases are concerned with identifying and developing talented para-athletes. All factors are focussed on the development of structured talent identification programmes to prepare coaches to identify talented para-athletes and to promote national competitions to generate a pool of para-athletes for talent identification. Furthermore, TID is connected to coaching provision and the promotion of national and/or regional competitions. Respectively, in the TID phase, policies should be generated that “aim to create evidence-based processes to identify new talents considering the different disability types” (Stakeholder 19). Coaches with disability-specific knowledge “is the main stakeholder with the expertise to identify talented para-athletes” (Stakeholder 2), and national competitions “is where most of those talents will be identified and should be prioritised on a strategic plan of a nation” (Stakeholder 10). Stakeholder 1 summarised how the three factors work together and represent a successful strategy in the context of Brazil:

Every year the national coaches come to the competitions as observers so they can use their expertise to find potential talents. This formula has been working well so far because some of our latest Paralympic medallists came from the school games or national competitions and the coaches have pointed them out as talents. After the identification, the coaches invite them to train with the national team so that they can observe them closely.

The classification system has a considerable influence on the talent identification phase and the transition to the elite phase. According to Stakeholder 3, “since the beginning of a para-athlete’s pathway, the identification of talent goes side-by-side with the classification system”. In Paralympic sports, the classification is involved in many aspects. As Stakeholder 4 pointed out, “the athlete may even have the physical potential, but if classified in a class where he/she is no longer a talent because the class is too strong or has many athletes participating, possibly, he/she will lose the chances of receiving investments”. In some cases, “the athletes will not be supported financially, for instance, because the class is very competitive and there will not be any chances of winning medals, which can end his/her career. He/she could be a talent, but depending on the class, might not be” (Stakeholder 13).

6.4. Elite phase

The elite phase’s focus lays on the achievement of national and international sporting success through the implementation of policies aiming to support the athletes.

Financial support is essential for elite para-athletes to be focused on and to devote themselves exclusively to their sporting career. During the elite phase, which is the most prolonged phase of a para-athlete’s pathway, “financial support is important not only to invest in team structure, qualified personnel, participation in competitions, training facilities, and equipment, but also to invest in courses and training for coaches to improve training methods, and for classifiers to ensure reliable national classification” (Stakeholder 1).

In order to achieve good results in international competitions, some support services are essential in this phase. According to the interviewees, “training facilities, access to good equipment and technology, as well as a team structure with qualified professionals as a multi-disciplinary team (e.g., coaches, physiotherapists, physiologist, psychologist, nurses, doctors) are vital during elite phase” (Stakeholder 4). The importance of coaching provision and education was also frequently mentioned by the interviewees, and some aspects related to the different disability types and the classification were highlighted by Stakeholder 3:

Concerning the different disability types and sport classes, the main difficulty for the athletes in lower classes [more severe disability], is that those athletes would depend much more on how good (or bad) the foundation and primary learning of their athletic skills was early in their pathways. In order to be able to have proper development, the professionals involved must be well prepared and qualified. They must know how to work with athletes according to the type and origin of their disability. For instance, swimming has grown a lot lately in Brazil, and the coaches are more interested in learning how to work with athletes with a more severe disability. As a result, the coaches are becoming more qualified and able to develop training for athletes in the lower classes.

Scientific research was pointed out by the interviewees as influential because “the use of scientific research can boost the results, but only if it is integrated with practice” (Stakeholder 16). However, the participants perceived that the scientific research influencing the para-athletes’ pathways is more related to the “development of programmes focused on coach education, in which courses and qualification programmes are delivered mainly through the NPC and initiatives from some universities” (Stakeholder 2). The universities were also perceived as a “space to disseminate and promote discussions about

parasports at the higher educational level through the integration of disciplines about parasport into physical education university-level courses and the development of parasports programmes” (Stakeholder 5).

Lastly, the classification system in this phase exerts a significant influence on elite para-athletes’ development, mainly when it is related to investments and support towards a para-athlete, “since it [investment and support] is directly dependent and influenced by their classification” (Stakeholder 4). The experts agreed that the classification, most of the time, dictates whether a para-athlete will receive funding or will be further supported by the NPC or federation. According to Stakeholder 1, “at the elite level, the focus is on winning medals, and the para-athletes who have a classification that would provide him/her bigger chances of winning medals essentially will receive more support”. Several interviewees also emphasised the negative influence of changes in classification during para-athlete’ pathways. For instance, Stakeholder 7 highlighted the following:

The issues of reclassification [when there is a change in a classification], especially when it happens at the elite phase, will have an impact on costs. For example, who will the investment be directed to? Well, usually to the athlete who is identified as a talent, so if the NPC or federation starts to invest in the athlete, and after three years he/she is no longer on the top of that class because a reclassification happened, this will always be a risk, and I do not know if committees or federations want to make this kind of risky moves.

6.5. Retirement phase

The last phase of a para-athlete’s pathway is influenced mainly by financial support, post-career support, and the classification system. Financial support will be necessary for the preparation to a career transition out of sport performance, for instance, investments in education, job qualification, and financial guidance to the athletes from the earlier stages in their sporting careers. As Stakeholder 18 stated, “when the athletes reach the retirement phase, it is ideal that they already have a plan to facilitate the transition to the job market. For example, some athletes have only been swimmers during a big part of their lives, so the change from being an athlete to becoming an employee in a company can be a scary moment in their lives”. Stakeholder 1 highlighted the following:

For the retirement phase, as the NPC, we ask if they want to stay involved within the sport even after retiring, as a coach or doing administrative tasks. Some international athletes are working on organising events or becoming referees, volunteering, etc. We expect to receive more money from the government to invest in their post-athletic career. Also, more than that, invest in their post-career while they are still active as athletes, providing education, languages skills, working to develop their strengths further so that they can apply for jobs in the future.

The development of career transition programmes based on the para-athletes’ needs is the main factor influencing this phase, and it relies heavily on the NPC that develops those career transition programmes, as well as the universities that are engaged in the post-athletic career phase to promote education and qualification to para-athletes. Stakeholder 6 explained the following:

The athletes that are about to retire; they need to be aware that their career as an athlete will come to an end. However, it does not end there, it will be the end of their athletic career, but the beginning of a new professional career. Moreover, the most critical part of the career transition program is that it does not start when the athlete is about to retire. The idea is that he/she starts to become aware of the importance of their education from the early stages of the pathway. Besides, the career transition programme cannot be seen only as a training, but also as psychological and emotional preparation for the athlete to leave the athletic career without suffering any further psychological and emotional trauma.

The classification in this phase is perceived as a parasport-specific reason for retirement and will influence the transition out of elite parasport. The main reasons are the changes in classification or ineligibility, resulting in premature career termination. According to Stakeholder 26, “in some cases, the progression of disability, for example, progressive and degenerative disability, can cause changes in the classification, and those changes do not mean success, most of the times they mean a premature career termination”.

7. Discussion

Taking an in-depth look at stakeholders’ experiences and perceptions, this study provided an overview of the sport policy factors and stakeholders that could influence the development of para-athletes’ career pathways in Paralympic sport. The social relational model was used in this study as a lens through which to explore the data, in particular by framing the analysis of the discourses on the individual in the social context instead of focusing on the disability as a barrier to sport participation. This is in line with the literature that connects the social relational model of disability with the broader sporting context (e.g., Townsend et al., 2016, 2018; Wang, 2019; Wareham, Burkett, Innes, & Lovell, 2017). While this study has attempted to address the gap surrounding the multifaceted interaction of sport policies in developing para-athletes’ pathways, this is only an explorative contribution to the theoretical conceptualisation of athlete development in the context of parasport. Accordingly, this study did not intend to develop a para-athlete development model; instead, stakeholders’ perceptions were explored in order to draw recommendations based on

their observations and experiences as the main actors responsible for recruiting, identifying, and developing para-athletes. Similar to previous work by Wareham, Innes, and Lovell (2017) and Wareham et al. (2018), stakeholder's opinions reflected a combination of policy, medical and biological, and social factors when discussing para-athlete development, which underpins the multifaceted description of the social relational model of disability. This theoretical lens appeared to be relevant in the context of this study. Townsend et al. (2018) opened the dialogue on how the use of such lens could be an asset to elucidate, as well as to challenge, the current construction of disability and how it can influence the development of athletes with a disability. This entails that the stakeholders involved in the parasport domain will determine how policy towards parasport will be shaped and implemented based on how their position and understand disability.

The participants perceived coaching provision and education as the most influential sport policy factor throughout the athletic lifespan of a para-athlete. This entails that coaching provision and education as a policy dimension, and coaches with disability-specific knowledge as key stakeholders, are highly involved during most of the phases of para-athletes' pathways. Their role extends beyond offering training and guidance from mass participation to the elite level. On that note, the results of this study suggested the need to provide inclusive policies and practices that support the involvement of coaches with disability-specific knowledge from the beginning of para-athletes' sporting careers. This point was also raised as a key concern by the coaches themselves in the study from Wareham et al. (2018), as coaches reported that without disability-specific knowledge they would either be unable to coach an athlete with a disability or risk injuring the athlete. This is also in line with the study from Townsend et al. (2016) who stressed that strategies to improve the quality of coaches in parasport should include, for instance, the promotion of appropriate training and education for coaches, not only at the elite level but also at the foundation level, to create more inclusive and high-quality coaching environments. Investments in training for national classifiers, in order to guarantee more reliable national classification in different parasports, could also be valuable in identifying optimal para-athlete pathways. Notably, support programmes for para-athletes who want to attain leadership roles or become a coach after retiring from an athletic career are rather scarce in the Paralympic movement (Itoh, Hums, Arai, & Ogasawara, 2018). Policies and programmes to encourage more coaches with disabilities to be involved throughout the para-athlete's life cycle appear to be equally beneficial.

In order to be able to intervene in policy development and implementation, policymakers and stakeholders involved in policy processes need to critically position disability within policy decision making to deliver successful para-athletes' pathways. This requires decisions built from critical analyses (Chalip, 1995). Accordingly, in addition to the prevailing strategies to maintain talented para-athletes at the elite level for as long as possible (e.g., sufficient funding and planning, provision of quality and accessible facilities, qualified coaches, and a pool of talented para-athletes in different sport classes to promote national competitions), the policy agenda that contours the parasport system needs to consider the factors inherent to this context. One example is the classification system, which is an element that potentially influences the identification and development of athletes and may affect how policies are implemented towards the elite level. Based on the results of this study, we can, therefore, argue that the policy agenda to develop para-athletes' career pathways may be dependent on the athlete's sport classification.

The findings of this study can be considered as a first step towards the identification of factors that should be taken into consideration when developing athletes with a disability or developing specific sport policy models to parasport. While critically analysing and positioning disability in the sport context, the framework used in this study to cluster policy dimensions (De Bosscher et al., 2006, 2015) primarily focusses on organisational structures of a nation towards medal-winning performances. Within those structures, stakeholders have to operate to successfully delivery pathways tailor-made to the specific needs of a population or context. Structural approaches marginalise the individual to a whole, making it challenging to deliver tailor-made sport policies to the parasport context, given the complexity and heterogeneity that are intrinsic to the participation of people with disabilities in sport. Therefore, based on the findings of this study, we may suggest that para-athletes need tailored support in all policy dimension of this framework due to the different set of factors that are present in parasports that have not been found in able-bodied sports. It is recommended that future research improve the understanding of the specific organisational factors in parasport.

The purpose of this study was to have a managerial perspective on the parasport system to identify which sport policy and stakeholders could influence athletic career pathways in Paralympic sport. The para-athletes were not interviewed in this study, and therefore, they were not able to add any other factor(s) they might have considered of importance. Para-athletes' opinion and experience of transitioning through the career pathways would complement the current findings and offer additional insights on useful strategies and support services for para-athlete development. As para-athletes are central actors in athlete development pathways and all programmes are built around the particularities of the athletes' needs, views, and perceptions (as primary users), their input could provide valuable insights into how NPCs and sports organisations can improve and support career pathways. Future research is recommended to include para-athletes in their scope, as a means of examining their views on how NPCs or sports organisations could better develop and implement policies that contribute to efficiencies in para-athletes recruitment, identification, and development. It is also essential to note that the stakeholders who participated in this study engage in a professionalised high-performance parasports system. Therefore, their perceptions incorporate a particular set of presuppositions, beliefs, and values. Consequently, the sample of stakeholders

may likely have influenced the findings of this study, especially the coaches, who represented a large share of the sample.

8. Conclusion

The current study was informed by the social relational model of disability and by best principles in the elite sport policy literature that can be used to support para-athletes. The results of this study suggested that understanding the concept of disability is notably essential when stakeholders have to think strategically and adapt management principles from able-bodied sporting contexts.

This study provided several implications for stakeholders involved in the design and provision of para-athletes pathways, from attraction to retirement. The findings from this study suggested that the way disability is understood could serve as a departure point for policy implementation, which may vary in order to reflect para-athletes' specific needs. In that sense, the leading example can be drawn from the classification system, which is dependent on individual characteristics (i.e., disability) as well as external characteristics (i.e. chances of winning medals). In other words, it is possible to acknowledge that athletic careers in parasport are disability-specific driven. It is recommended that the support services that are provided to the athletes, as well as, the policy agenda, should be tailored to each disability group and athlete's sport classification. In addition, the need to integrate athletes with a disability into a broader sporting environment should also be acknowledged while considering social and contextual factors. Finally, we hope that our study further stimulates a broad discussion, as we invite readers and future researchers to consider how our findings may be translated into their context.

Declaration of Competing Interest

No potential conflict of interest was reported by the authors.

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