

Socio-ecological analysis of trans people's participation in physical activity and sport

International Review for the
Sociology of Sport
2021, Vol. 56(1) 62–80
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DOI: 10.1177/1012690219887174
journals.sagepub.com/home/irs



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Abstract

The purpose of this study is to explore and provide understanding of trans people's participation in physical activity and sport through the socio-ecological perspective. A total of 43 Spanish trans people (21 trans women, 17 trans men and 5 with 'other self-identifications'), between 15 and 62 years old, participated in semi-structured interviews. Thematic analysis identified six main themes, which highlight the multidimensional relations between individual, social and environmental factors in trans people's participation in physical activity and sport. Results reveal that the importance of body appearance for 'passing' and the fear of being unmasked affect their participation. Trans people also rely on physical activity and sport to accelerate or avoid the side effects of hormone treatment. Social support from family and close friends and health professionals are essential for engaging in physical activity and sport. Experiences in physical education also influence trans people's attitudes towards physical activity and sport. Finally, spaces (e.g. swimming pools and changing rooms), legal requirements and lesbian, gay, bisexual and transsexual teams and leagues are also identified as key socio-ecologic themes. These findings are relevant for health and physical activity professionals, educators, sports organizations and policymakers in facilitating trans people's participation in physical activity and sport and improving promotion strategies.

Keywords

exercise, physical education, recreation, socio-ecological approach, transgender

Introduction

Trans people face numerous barriers when participating in physical activity and sport (PAS) (Jones et al., 2018; Muchicko et al., 2014). Rejection and/or negative experiences

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due to transphobic attitudes, lack of social awareness of their needs, and discriminatory policies predominate in PAS contexts (Devis-Devis et al., 2018a; Hargie et al., 2017; Jones et al., 2017;). Trans people therefore opt for individual and non-organized PAS, which are less demanding in terms of social recognition, and avoid body exposure in PAS spaces (Pérez-Samaniego et al., 2017; López-Cañada et al., under review). In the end, these participation trends perpetuate inequalities and foster the exclusion of trans people from PAS and other leisure environments.

In addition to the biological, psychological and social benefits for the general population (World Health Organization (WHO), 2010), participating in PAS is of particular importance for trans people. PAS can complement and accelerate the effects of trans people's hormone treatments, especially in trans men, to build a masculine body and embodied masculine identity (Elling-Machartzki, 2017; Schrock et al., 2005); alleviate their possible secondary effects, such as cardiovascular risk factors, osteoporosis or osteopenia (Wierckx et al., 2012); and contribute to maintaining the appropriate weight if they decide to undergo gender-confirming surgery (Coleman et al., 2012). PAS can also foster wellbeing, as well as being beneficial for mental health problems – such as control of eating disorders, depression or anxiety – and addictions, of which they are at a higher risk (Fredriksen-Goldsen et al., 2013; Hellman et al., 2002; Millet et al., 2017). Participating in PAS in educational and recreational environments can also favour recognition and social justice in this vulnerable social group (Devis-Devis et al., 2018b; Pérez-Samaniego et al., 2019).

In spite of its importance for trans people, however, there is a lack of knowledge of the personal and sociocultural factors which may complicate, facilitate and influence the experience of their participation in PAS. This is why a socio-ecological perspective (SEP) is progressively gaining importance for understanding PAS involvement and its promotion. SEP overcomes the partial and isolated understanding of personal and sociocultural factors by providing a holistic and interconnected approach (Rhodes et al., 2019). This perspective goes beyond a medicalized view of health and the individual because they are, as well as PAS, multidimensional and context dependent in nature (Freund et al., 2003). When particularly studying trans people's PAS participation, SEP emerges as an appropriate framework of analysis because it moves beyond the pathologization used to understand transgender identities and trans people's lives (Inch, 2016).

According to Bronfenbrenner (1979), an early proponent of SEP, human behaviour both affects and is affected by the interaction of factors at multiple levels in an ecosystem comprising micro-, meso-, exo- and macrosystems. In the microsystem, an individual grows and adapts through the interchange with the immediate environment (e.g. family, friends, schools and relatives). The interrelationships among the microsystem elements constitute the mesosystem. The exosystem is an external level that incorporates elements of the local social environment (e.g. the media, community and social services), which shapes and constrains behaviour. Finally, the macrosystem is the outer environment, which comprises national cultural values, policies and customs.

Since its conception, the SEP has fostered the understanding and promotion of healthy behaviours, including PAS (Bauman et al., 2012; Devis-Devis et al., 2015; Humbert et al., 2006; McLeroy et al., 1988; Sallis et al., 2006; Stokols, 1992; Thornton et al., 2016). The interconnected domains that influence involvement in PAS include individual (biological, psychological, cognitive, emotional), social (family and significant others)

and environmental (physical and community organizations, policies, culture) factors (Sallis and Owen, 2015). More recently, contemporary social inequality developments have revitalized the interest in the contextual factors of PAS in vulnerable populations (Richard et al., 2011). The SEP has been used to address social problems such as deviance (Su et al., 2016), inequalities (Dietz, 2014), resilience (Wilkinson, 2012) and sexual decision-making (Stevens et al., 2014). It has also been used in analysing several issues related to trans people's health, experiences and social stigma (Stevens et al., 2014; White Hughto et al., 2015). Within this approach, human behaviours and communities are complex systems of interdependencies in which interactions occur (Lawson, 1992).

Personal and sociocultural constituents of western culture suggest that the SEP offers a great potential in the study of trans people's PAS participation. To the best of our knowledge, however, the SEP has not been applied to investigate the multiple factors that affect trans people's PAS participation. Therefore, this paper fills this gap by a multidimensional approach which interrelates individual, social and environmental factors that influence trans people's (non-)participation. The purpose is not to focus on each factor, but to highlight the interrelationships between factors in order to trace their social dynamics on PAS. The social dynamics refer to the behaviour of groups that result from individual and group-level interactions and not from simple aggregations of behaviours (Durlauf and Young, 2001) which, in turn, are aligned with the complexities the SEP helps to understand.

Methodology

Participants

This study is part of a larger research project involving a total sample of 212 Spanish trans people who completed a survey on their PAS participation. Firstly, participants were contacted through lesbian, gay, bisexual and transsexual (LGBT) associations. A snowball strategy was then used, asking participants to facilitate contact with other trans people or groups who might voluntarily participate in the study. At the end of the survey, the participants were offered the opportunity to collaborate in a second qualitative phase in order to get further insights into aspects related to their PAS experiences. From those who voluntarily expressed their willingness to collaborate, the participants in the second qualitative phase were selected according to a purposeful sampling procedure. The selection strategy included different features such as gender identity, age, public identity disclosure and the detailed information on their PAS participation gathered in the first phase of the study. All the informants were living by their desired gender identity when they participated in this research. Forty-three trans participants (21 trans women, 17 trans men and 5 'others') from different regions of Spain, ranging from 15 to 62 years of age (average age of 32.76 years), were interviewed. In the case of underage informants, the initial contact was established through their parents or guardians, who could attend and participate in the interview.

Procedure

Individual semi-structured interviews lasting between 45 minutes and 1 hour were carried out to gather qualitative data. In an initial telephone contact, one member of the

research team explained the purpose of the interview, our relationship with the university and the aims of the research project, and an agreement was made to meet at the interviewees' convenience. At the interview itself, the interviewers updated the informed consent previously gathered during the first phase, and any doubts expressed by the participants were clarified. All the interviews were audio-recorded and fully transcribed verbatim, and transcripts were given to the participants, who were asked to give their explicit agreement to use them as data.

The materials and procedures of the research project were approved by the Ethics Committee of the University of Valencia and informed consent forms were signed either by adult participants or by their parent or guardian if under 18 years of age, authorizing the research team to publish the data. Apart from the informed consent and the use of pseudonyms for anonymity, our ethical concerns dealt with the dilemmas that could emerge during the research process and fieldwork. In this respect, relational ethics, which emphasizes mutual respect and connectedness between researcher and researched, was a key issue (Ellis, 2007). We particularly reflected on the encounter of our own (cis)gender identities in relation to informants and vice versa. In this regard, we always endeavoured to respect each person's particular reality, and were especially cautious about naming the participants' gender. Likewise, we purposely avoided any evaluation, advice, value judgement or expression that could be interpreted as intrusive.

Analysis

During the development of the project, the SEP emerged as both a theoretical framework and an analytical device to provide a panoramic understanding of trans people's experiences in PAS. Once the SEP was identified as a potentially interesting analytical device, a thematic analysis was thus considered suitable to identify patterns of meaning within data (Braun et al., 2016). This type of analysis provides a rich description of the total data set, which in turn highlights the most prominent and important thematic categories in relation to an analytical and theoretical framework.

The analysis involved a combination of inductive-deductive processes according to the following steps. To become familiar with the data, all the interview transcripts were read to generate initial codes. All the significant fragments of text that collected key thoughts or concepts related to socio-ecological factors that could influence physical (in)activity and sport were appropriately coded. Using inductive reasoning, categories and subcategories were progressively identified from the data. These provisional categories were organized and presented in an interrelated manner by providing meaningful themes in accordance with the SEP analytical framework. These themes, although labelled by two or three significative words, integrate influences from different individual, social and environmental factors. In order to complement the inductive procedure, a deductive method was then established to retrieve data according to these themes. Categories were refined and reclassified in order to emphasize relationships between the different socio-ecologic factors that influence trans people's participation in PAS.

Results and discussion

In the SEP, individual, interpersonal and environmental factors are presented as interrelated and mutually influential. In fact, as Sallis and Owen (2015) state, the specification of multiple levels of influence may be difficult to discern specific factors as facilitators or inhibitors of PAS. According to previous research on SEP applied to (in)active people, this perspective traces a concatenated series of decision-making and actions at a personal and social level which help to understand the complexity of social dynamics in PAS (Devís-Devís et al., 2015; Devís-Devís et al., 2014).

Emerging from the analysis, the following six themes show the social dynamics followed by trans people in relation to PAS. Although labelled with meaningful titles which may evoke individual, social and environmental factors, these themes are not compelled to a particular type of factor, but reflect and integrate some of the complex interactions between them.

Body appearance and 'passing'

Due to the incongruence between the biological gender assigned at birth and their gender identities, trans people are often visually recognizable for appearing *improperly* gendered within a binary sex/gender social system (Elling-Machartzki, 2017). This impels many trans people to adopt passing strategies in PAS contexts. 'Passing' refers to individual decisions on body-self presentations that respond to cultural gender normative ideals of masculine or feminine appearance (Hines, 2013; Witcomb et al., 2015). The common goal of these strategies is to be socially recognized as a man or woman, and not as a trans person.

Some typical examples of passing strategies for exercising are the use of certain procedures and devices, like chest binding or false packages (trans men) or bras with stuffing (trans women), to conceal or denote certain body features (Pérez-Samaniego et al., 2019). However, the ultimate strategy is to mould the actual body appearance according to culturally accepted presentations of gender. For example, trans men practise weightlifting and fitness exercises to *burn fat*, especially around the hips, as well as to look fitter and more muscular, as Darío (trans man, 18 years old) and Carlos (trans man, 35 years old) explained:

For example, if you walk a lot your hips get reduced. It is a change that trans guys want . . . well, they do not totally disappear . . . but yes . . . It is true, they [the hips] get reshaped. (Darío)

I would like to be a little more physically fit . . . I'd especially like bigger pectoral muscles . . . This year I'm working on it a little more. (Carlos)

Many participants associated passing as a man or a woman as a form of integration into society. For these participants, the physical effects needed to pass were the main motivation for PAS, and passing in PAS contexts particularly strengthened their self-esteem, as these quotations indicate:

You see yourself in the masculine side [of the gym], and I feel great to see kids born men who are the same as me . . . though I have a better body than them! So for me it is gratifying, because I feel like a man, just a man, integrated among them. (Leonidas, trans man, 24 years old)

For me, the main thing is to have a feminine image, so if you are feminine and you are also discreet, not attracting attention . . . then it helps you to go unnoticed at the gym. (Inma, trans woman, 19 years old)

The concern of passing, however, also brings undesired experiences, particularly when trans people's bodies are unable to match the expectations of the hegemonic binary sex/gender system (Elling-Machartzki, 2017). Then the fear of being unmasked induces unease and feelings of shame:

When you push your body doing sport, you always think 'I'm sure the binder is moving, everyone is looking at me' . . . no matter whether you are a trans girl or boy, you always hesitate . . . I don't know, you are always obsessed with this thought. (Lucas, trans man, 23 years old)

I do not feel comfortable in a bikini, because no matter how much I try to hide that [penis], it always protrudes! And, apart from that, I do not feel comfortable wearing the bikini without breasts. (Ana, trans woman, 15 years old)

The participants with no reassignment surgery were particularly concerned about some sports kit, like leggings or tight shirts, which increased the risk of revealing their genitals. This became a serious hindrance for Rosa (trans woman, 45 years old), who would have liked to do artistic skating, but she refused the humiliating experience of wearing the required garment:

You had to wear leggings and a short skirt . . . you know, I'd love to be able to perform figure skating but . . . I'd like to do it in casual clothes, you know? [. . .] With leggings it is too much!

As Planella and Pie (2015) have pointed out, sports practice requires women's *or* men's bodies. Not surprisingly, trans people normalize their bodies by wearing special clothes to simulate or conceal body parts. Trans women like Ana often stuff their bras and girdles to look more feminine, and special knickers to camouflage bulges. Likewise, Darío explains some hindrances trans men suffer wearing certain accessories:

I have to do it [exercise] with a sports bra, and my boobs move up and down and then it is an uncomfortable issue, so the more invisible and hidden they are, the better [. . .]. Running down the street with your chest bandaged as tight as you can is also annoying.

This quotation illustrates the discomfort trans men may feel when they use bandages, binders or sports bras to mask the 'feminine' features of their bodies, particularly chests, and how these garments restrict their participation and performance.

Hormone treatment

Almost all the participants underwent hormone treatment to reduce the secondary sexual characteristics of biological sex. Trans women take oestrogens to reduce facial and body hair growth, increase subcutaneous fat deposits and fat distribution around the hips and buttocks, grow breasts and reduce their muscle mass. Conversely, trans men take testosterone to redistribute their fat, increase muscle mass, grow facial hair and deepen their voices (Seal, 2007). According to Ettner et al. (2007), the effects of hormone treatment reduce trans people's body dissatisfaction and align them closer to their desired body.

Trans people from our sample, mainly trans men, show a predominant instrumental use of PAS for reinforcing or mitigating the side effects of hormone treatment. During their transition, trans men often get involved in individual fitness activities in order to support the hormone treatment in building a masculine body and identity (Elling-Machartzki, 2017; Schrock et al., 2005). In the interviews, trans men stressed the importance of PAS to increase and accelerate the effects of their hormone treatment:

From girl to boy, no matter how much hormones you take [. . .] the change is not as noticeable as if you do [training . . .]. I go out running and I notice that I have more endurance and so, probably 'because of hormones'. [. . .] I want to have a [masculine] appearance [. . .] Then of course, when I saw the results I moved up a gear with weight lifting and running. (Fernando, trans man, 48 years old)

Hormone treatment also awakens trans people's fear about the potential reaction of people in sport contexts due to the body changes they evoke. Hanna (trans woman, 27 years old) states this fear in the following quote: 'I'm afraid, when I take hormones, of how my mates may react. I know there are people who react OK, but other people react worse, and it stops me from participating in the gym.'

Some participants indicate the difficulties in competitive sport participation when they start the hormone treatment, as Beltrán (trans man, 23 years old) expresses:

I wanted to compete, but if I'm taking hormones, I cannot compete any more . . . If I'm taking hormones I cannot compete as a man because my sport level in the men category is poor and I cannot compete as a woman neither. I'm then in a limbo.

Simultaneously, most informants were conscious of the adverse health side effects from endocrine treatments, such as liquid retention, hepatic difficulties, bad blood coagulation, insomnia, psychological stress or overweight (Bourgeois et al., 2016). They were aware of the positive influence of PAS in mitigating the physical and psychological side effects of hormone treatment, as Laura (trans woman, 14 years old) remarked: 'I have to do a lot of sport . . . a lot of cardio and stuff like that so that hormone treatment does not affect me.'

Likewise, the encouragement to exercise received from health professionals was often a key factor for most interviewees, especially trans women, who held doctors' recommendations in high regard:

When you take hormones it's the first thing that he [the endocrinologist] tells you, you should do sports and control your weight because hormones make you retain liquids and make you put on some weight. (Inma)

I think that [PAS] has helped me a lot to redistribute body fat, because even the endocrinologists tell you, if you can play sports, it's better because it helps you to reshape your body. (Almudena, trans woman, 26 years old)

Trans people's reliance on their endocrinologists highlights the importance of these professionals in promoting PAS. This is particularly important in the early stages of the transition process, considering the effects of PAS on hormone treatments (Wierckx et al., 2012). Although the participants did not mention them directly in the interviews, the role of other health professionals in attending trans people may also enhance the possibilities of PAS promotion and extend their psychological and social benefits.

Family and friends

The positive and/or negative influence of family and close friends in PAS participation is often regarded in studies framed in the SEP (e.g. Devís-Devís et al., 2015; Humbert et al., 2006). Throughout the interviews, informants frequently outlined the positive role that their relatives and close friends played in facilitating participation in PAS. Beltrán, for instance, cited the importance of his relatives in enjoying sport at the beginning:

My parents always encouraged me to do lots of sport, and then I kind of got into it, and I liked sports and I tried them. [. . .] And something that glues us together now is hiking in the mountains. So . . . in my family sports, especially outdoors like cycling and hiking . . . I've got and I've learned to enjoy those two things from my family.

As feeling safe and confident while doing exercise is essential for trans people, they thus choose to do activities or sports with close friends or people who respect them. Laura spoke about her good experiences with her colleagues at the dance academy where she practised modern dance:

[My dance mates,] they've always respected me and . . . yes, they do . . . and even though I am a transsexual girl they do not take me apart from the other girls [. . .] and I have never felt discriminated [against] in dancing.

Although PAS are considered important for personal empowerment and social inclusion (Coalter, 2007), most participants, particularly women, refused group activities because they do not feel comfortable with strangers, as Gloria (trans woman, 26 years old) explained:

I'm not a person used to doing sports for a number of reasons. It's partly my own responsibility, partly because I have to interrelate with other kids . . . In sports it happens to me like at school, I feel forced to go to a place and I feel uncomfortable there with other people.

This quotation illustrates the difficulties and extra challenges of PAS participation for trans people, as others have previously indicated (Pérez-Samaniego et al., 2019; Travers, 2008). Many sports contribute to (re)construct and (re-)inscribe gender inequalities. In particular, traditional team sports reinforce fitness and abilities socially related to hegemonic forms of masculinity (speed, strength, risk or power) and femininity (empathy, solidarity, elasticity or aesthetics) (Beltrán-Carrillo et al., 2012; Buzuvis, 2012).

Social inequalities and gender stereotypes are also transmitted by parents and significant others (Fredricks and Eccles, 2005). This is particularly critical in the case of trans people's parents, who 'noticed something wrong was going on' (Darío), ignoring or denying their children's gender identities. For instance, Naím's parents did not allow him to do martial arts when he was a child:

My parents said that this [judo] was not for girls . . . and I yelled: 'please, let me do judo' . . . it was what I wanted the most to do. Martial arts always caught my attention, but they never let me do any of them. (Trans man, 20 years old)

Likewise, other parents rely on stereotyped sports as a way to reinforce youngsters' assigned gender. These parents eventually forced their children to engage in undesired activities, as Alex ('other', 32 years old) said in the following quote:

My parents have never come to see me in all my exams, including judo and taekwondo and my competitions. Yet, when they forced me to do all that gymnastics shit, wearing that bloody leotard . . . my mum used to say 'I am so proud'. . . I hated it the most! They thought they were supporting me, but I felt humiliated by their support.

Alex's mother's reinforcement of her child's female role reveals the problem that certain PAS may represent in the bond between some parents and their children before gender disclosure. Those parents who neglect their children's gender may rely on certain stereotyped social PAS features consistent with their assigned gender to *correct* the situation. Meanwhile, trans youngsters aim to make the opposite use of PAS, precisely to reinforce their gender and independence from their parents' judgements. The result in any case might be acute discomfort and conflictive relationships.

Physical education

It is assumed that physical education (PE) plays a significant role in PAS promotion, but this is often an awkward subject for trans people. As previous studies have revealed, most of the negative experiences of trans people in PE are a consequence of the strong (re)production of gender binarism by teachers and peers during classes (Caudwell, 2014; Devís-Devís et al., 2018a; Sykes, 2011). Trans people are affected by many teaching decisions regarding gender segregation in activities, groups, assessment and spaces (e.g. changing rooms), as Ana indicated:

I disliked the subject because they classified us a lot [in gender groups] . . . and you had to put up with the silly bullshit things boys did in the changing rooms. I finally hated the subject and everything related to it.

In many cases, this gender segregation underpinned multiple situations of discrimination, exclusion and rejection by the trans people's' classmates, as Gloria expressed in the following quotation:

I haven't got good memories of PE classes. It wasn't because of sports, since I did practise it, but rather because of situations in which certain kids were teasing me, and finally, I didn't want to do it.

Lucas remembered 'how clumsy he was in the classroom' and how his hateful experiences became one of the reasons for avoiding exercise at present:

I felt it [PE] was negative. I think I don't like sports because of that. I know it is good [for my health], but I hate it [. . .]. It is shit and I have bad memories. I hate it.

Teachers should ask students and offer a wide range of activities [. . .]. If PE is a horrible subject for you . . . in the future it will be hard for you to engage in exercising [. . .] It will be difficult to engage in sports because you will think that, it was hard at school!

In heteronormative PE contexts, trans youngsters are generally 'located as extraneous human beings in relation to their cisgender schoolmates' (Devís-Devís et al., 2018a: 114). However, trans men were keener to refer to good experiences in PE classes. For instance, they mentioned how peers and teachers positively valued their sports performance in PE, and also talked about their positive role to foster participation in out-of-school organized sports:

I've always felt comfortable doing sport [in PE] because I was in my element and I liked what I was doing, I was at ease [. . .]. I always earned an outstanding mark [in PE]. (Jorge, trans man, 42 years old)

I remember one PE teacher that even took us for athletics and competitions. He was hard but he transmitted a sport-centred lifestyle. He created an athletics group. We went to the university track and field stadium to compete. I enjoyed it a lot. (Paco, trans man, 39 years old)

The former quotes denote how the traditional male-orientated PE provides trans men with more opportunities to *do* gender. Conversely, it can also be seen as a hindrance for other trans youngsters, particularly trans women or queer men (Landi, 2019). However, as Landi (2018: 11) rightly remarks, in educational settings 'PE needs to be a place where queers can flourish, experience pleasure, and be successful.' These complexities reveal the need to critically discuss the role of PE in relation to gender identities which defy heteronormativity.

(Un)safe PAS spaces

Sport spaces and facilities are hyper-normative zones that operate as a tyranny for trans people because of the hegemonic influence they exert on gender issues (Doan, 2010). Most participants, particularly those who found it more difficult to pass, avoided public

facilities or practice spaces. Quite often, trans people choose individual activities like jogging or cycling due to the fewer opportunities for social interaction. Some trans men built their own gyms at home to avoid public ones, as Yeraí (trans man, 20 years old) indicated:

No, I never go to gyms. Before chest surgery, I was too anxious. And now [after surgery], I rather prefer to exercise alone at home. I do not feel comfortable with many people and so [...] that's why I have the gym at home. I have the weights and a punch bag at home, and I practise with tutorials.

As Fagrell et al. (2012) state, the public exposure of one's body and the social reactions to it are key issues in understanding how the social processes of body regulation are produced. Not surprisingly, swimming pools and changing rooms were referred to as by far the most unsafe spaces. For the few trans people who make use of them, body exposure in swimming pools causes acute discomfort, as Alex expressed:

I really like the water but, of course, with the problem of the swimsuits . . . swimming pools are much more normative [spaces] . . . then I feel a little uncomfortable, [...] in the swimming pool, as I have breasts and I go . . . [topless], well I feel a little self-conscious.

Likewise, many trans people experience embarrassment and stress in changing rooms since they are gender binary infrastructures where people show their naked bodies (Elling-Machartzki, 2017; Hargie et al., 2017). The participants particularly complained about the lack of privacy in changing rooms and that it was impossible to preserve any privacy. Carlos suggested mixed locker rooms, 'with shower cubicles where you can preserve your privacy if you are a bit shy'. As Jones et al. (2017) suggest, leisure centres and sports clubs should consider the non-binary design of spaces, as they could help trans people, along with other people particularly concerned with their body intimacy, to feel safe.

For three of our interviewees (Marisa, trans woman, 42 years old – swimming; Darío – football; and Llurena, trans woman, 32 years old – hiking) LGBT teams provided a safe, friendly, social and skill-developing environment for practice. They remembered being included, sharing affinity and empathy with the rest of players, as Darío and Llurena expressed:

You feel integrated into a group, you see people who are just like you, who have the same problems, and protest against the LGBT phobia. [...] There is always companionship, they pass you the ball, everyone plays, teams exchange, we always stay longer, we have a drink and comment on the game . . . for me, this is very rewarding. (Darío)

[In the LGBT team] there are lesbians, as well as heterosexuals, bisexuals and so on, and then I, who did not match with anyone, did not stand out much in the end! [laughs] [...] I chose this LGBT club because in my case as a trans person, a woman in this case, at that time I was not reassigned. Then my body, at least the genital part, could induce doubts, some little problem, and then I chose that team because I thought it would be easier for me not to get stuck [...]. Having a safe space in which you do not have to think, do not have to think over and over, you just practice sports, just play. (Llurena)

These quotes reveal that LGBT teams and leagues are environments of practice that may provide a feeling of empathy and security for trans people's PAS participation, far from the negative consequences that binary-based sports organization may have for some. However, as has been indicated in previous studies, a trans person's participation may also be problematic in LGBT teams which voice oppressive discourses against the 'T', mainly because of trans women's supposed advantage in competitive sports (Caudwell, 2014; Lucas, 2009). Integrating trans people would therefore entail a comprehensive acceptance of gender diversity in any PAS environment. In this regard, from an environmental perspective, LGBT teams and leagues must be seen as an advance, but they are not the entire solution to the barriers preventing trans people's participation in PAS.

Legal recognition

Legal recognition of gender identity is of the utmost concern for trans people (Soley-Beltrán and Coll-Planas, 2011). Though still scarce, recent regulations in Spain, addressing trans people's right to get involved in different social domains, represent important legal steps forward to tackle transphobic attitudes and discrimination (e.g. Law 8/2017 – Valencian Community – and Law 3/2016 – Madrid). However, some legal requirements, such as the National Identity Card (NIC), still represent a serious hindrance for trans people's participation in PAS.

In Spain the NIC can be requested to get access to PAS facilities or to join in sports competitions. According to the Spanish Organic Law 3/2007, changing the gender on the NIC takes a long time and many legal requirements (including two years of demonstrated hormone treatment). Not everybody completes these requisites, so that the NIC does not reflect the gender identities of many trans people. This is mentioned in the interviews as one of the most important barriers for PAS participation, particularly at the beginning of the transition. Raúl (trans man, 25 years old), for instance, could not sign up for a male football team due to having the wrong gender on his NIC.

The lack of an updated NIC, however, did not mean automatic exclusion from PAS facilities. Eventually, participants who had not achieved the legal recognition of their gender identity counted on the understanding and compliance of managers, workers and other facility users:

I've never [had any problems], I've never even had to explain anything. Anyway, those who run the sports club know me and love me a lot, so they have never said anything. And on the NIC there is another [male] name, that is not 'Laura', but they corrected my name on my sports card. (Laura)

The only person that I needed to tell was the receptionist, and there was no problem. So, if instead of the [male] name that figures on my NIC, they put 'Inma', so . . . great! (Inma)

Paradoxically, changing the NIC may also obstruct participation in PAS, as in the case of Jorge, whose gender was tacitly accepted by a female football team until he was forced to quit once his male identity had been recognized on his new NIC:

Before [changing his NIC], when I was playing with the girls, they knew it, more or less . . . And, well, it was pretty good. But once you change the name on your NIC, you cannot play [in a girls' team] anymore.

Despite advances in the recognition of trans and intersex participants in PAS contexts and sports organizations, public acceptance of this population is not widespread (Larson, 2011). The strong binary structure in PAS environments harms trans people who, in most cases, give up enjoying and achieving the social benefits involved in these activities.

Conclusions and implications

Using the SEP as an analytical and theoretical device, this study provides evidence and insights into trans people's involvement in PAS, putting a focus on the interaction between individual, social and environmental factors. The results reflect the importance of body appearance for passing, and how the fear of being unmasked affects participation. Likewise, trans people rely on being physically active to accelerate or avoid the side effects of hormone treatments. Family and close friends' support is essential for trans people's confidence in PAS participation. The influence of health professionals, particularly endocrinologists, is key for trans people's intention to get involved in PAS. PE experiences also influence trans people's attitudes towards PAS during and after their schooldays. Some highly binary-gendered facilities and places, namely swimming pools and changing rooms, are particularly problematic, while LGBT teams and leagues provide an alternative to the rigidity of sex-segregated PAS. Finally, legal requirements for participation, such as those represented by the NIC, indicate some of the problems and contradictions in facilitating PAS participation among trans people.

Two limitations are worth considering when interpreting these findings. First, we have obviated general sociodemographic factors, such as age, education or socioeconomic status, which are also important to understand involvement in PAS. Likewise, we have not taken into account the stage in the transition process in trans people's PAS participation and their different experiences before, during and after transition. Second, the focus on SEP may have underestimated other important features in understanding the involvement of trans people in PAS, such as behavioural (personality, attitudes or self-efficacy) or cultural factors (e.g. relationship of specific PAS practices with hegemonic forms of gender).

In spite of these limitations, it is worth noting the strengths of this study and its implications. Using the SEP enhanced the analytical generalization of the study's results. According to Smith (2018: 5), analytical generalization occurs in qualitative studies which 'generalise a particular set of results to an established concept or theory'. In this regard, using SEP is important, first, to provide a new and deeper understanding of the involvement of trans persons in PAS, and, secondly, to integrate trans populations into the scope of SEP research, which has widely and extensively contributed to understanding PAS in many different populations. Analytical generalization is also an argument to extend the conclusions and implications of this study beyond the Spanish cultural context in which the study was developed. In this sense, this study contributes to expand the SEP-framed literature on PAS, as it provides new understanding of the multidimensional relation between individual, social and environmental factors.

Although interaction between factors is generally outlined as a strength of SEP, its application to PAS is often presented in segregated factors. In fact, the segregation of factors is a common critique since the potential analysis of SEP has mainly been reduced to some links to physical environment (Rhodes et al., 2019). Some authors from anthropology, human geography and political ecology refer to the neglecting of certain variables and political emphasis within SEP analyses, especially those of social, cultural and economic character (Fabinyi et al., 2014; Turner, 2014; Welsh, 2014). The results of this paper show how in order to manage their participation in PAS, trans people face interwoven interpersonal and sociocultural issues (body passing, fear of being unmasked, hormone treatment, friends, health and PE professionals) in several social contexts (family, gyms, sport teams, PE and health system, legal requirements). This, according to Ungar (2002), provides a deeper social focus or a *social*² character, as Stojanovic et al. (2016) name it when the social features are at the forefront of SEP studies.

The focus provided in the relations between factors presented in this study is also an argument for the intersectional generalization of the results. Intersectional generalization is achieved by works that explore deeply and respectfully with a community to record the particulars of oppressed people/communities (Smith, 2018). That type of generalization is also about producing ‘work that tracks patterns across nations, communities, homes, and bodies to theorize the arteries of oppression’ (Fine et al., 2008: 174). Importantly, the social dynamics traced in this paper facilitate the visibility of social gaps and hidden issues that affect the (non-)practice of PAS in trans people and, probably, other vulnerable populations. Moreover, the social dynamics of (non-)practice trace how trans people’s behaviours and decisions result from complex interrelation between interpersonal, social and environmental factors, thus gleaning ‘theoretical lessons about social oppression and forms of resistance’ (Smith, 2018: 7). This is an advancement in the reconstruction of trans people’s PAS participation, since SEP enables us to detect issues corresponding to different factors, trace the trajectories of their complex interrelations, and also interpret them in relation to other sociological perspectives.

For instance, the desire (individual-cognitive issue) of a trans person to appear as ‘properly’ gendered (cultural-environmental issue) is behind their decision for passing in PAS contexts which, in turn, strengthens – or weakens – self-esteem (individual-cognitive issue). The interrelation between these individual-environmental-individual issues traces a social dynamic that remembers the symbolic interactionist metaphor of the ‘looking-glass self’, introduced by Cooley (1902) in the understanding of identity construction, since it reflects how trans people think they appear to others, and this affects their actions. This metaphor can also be spotted when some trans people refer to their fear (individual-emotional issue) of being unmasked (community-social issue), which induces feelings of shame (individual-emotional issue). Likewise, a combination of SEP factors is also remarkable in the delays and paperwork involved in obtaining legal recognition by an NIC (policy-environmental issue) which facilitates – or hinders – access to PAS (community-social issue) and, sometimes, affects the decision to stop or delay transition (cognitive-individual issue) in order to keep on with sport. This dynamic shows how agency and structure (Giddens, 1984) affect trans people’s deliberations and personal strategies to get involved in PAS.

Another important cross-cutting issue that appears in different themes is the role that PAS play as ‘technologies of the self’. For Foucault (1988: 18), technologies of the self

'permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves'. For instance, PAS can be considered as technologies that trans people use to change gender power relations that allow them to fulfil their gender identities. However, in a similar way to that indicated by Johns and Johns (2000) in the context of disciplined practices of dietary intake by athletes, trans people's technologies of the self may also become technologies of power and domination. This especially appears in those trans people who only acknowledge a dichotomized 'true' embodied identity of man *or* woman. In those cases, the value conferred on PAS and the motivation and satisfaction of their practice is reduced to specific outcomes (e.g. construction of hypermasculinized/feminized body) that reflect compliance to the social stereotypes explicitly or implicitly imposed by heteronormativity and gender binarism (Travers, 2006).

Trans people, families, close social environments, professionals and policymakers can benefit from the understanding of social dynamics of trans people's participation in PAS. In fact, between the interstices of these dynamics it is possible to identify key issues to intervene in PAS promotion. Trans people can gain awareness of the diversity of experiences and the controversial factors that affect their participation. Family, peers, and health and educational professionals have an essential role in the promotion of positive attitudes towards PAS. Sports managers and policymakers need to accept their responsibility in creating adequate environments to stimulate and facilitate PAS participation among trans people. A coordinated and multilevel agenda among these actors would enhance the potential success and impact of programmes for promoting PAS among this population.

The recognition of trans people's right to participate in PAS in similar conditions as cisgender people is a *conditio sine qua non* for the promotion of PAS among trans people. Sport policies and educational programmes that foster their involvement in PAS must be considered a necessary and important social advance. In this sense, it must be taken into account that policies affecting the social recognition of trans people are controversial, as they are the ultimate expression of the acceptance of gender diversity. Not surprisingly, they are typically promoted by politicians and political movements willing to stress their commitment to a politics of recognition and social justice. Moreover, as intrinsically embodied practices, PAS can do a lot to improve acceptance and social recognition of people and groups with controversial body-selves. Keeping this in mind, being inclusive and supporting the participation of trans people would make PAS worthier of being promoted.

Acknowledgements

The authors wish to thank the participants for their collaboration in this study, and the editor and the anonymous reviewers for their useful comments and insights.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was partly supported by Ministerio de Ciencia e Innovación

[Grant Number EDU2009-06815-E/EDUC and Grant Number DEP2011-28190]. It was also supported by two predoctoral contracts funded by Ministerio de Economía y Competitividad [Grant Number BES-2012-052493] and Ministerio de Educación, Cultura y Deporte [Grant Number FPU13/03247].

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