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Challenges Accessing Physical Activity from a Transgender Perspective: A Systematic Review

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Abstract

The gender diverse community face numerous barriers that make physical activity difficult to access meaning they are less physically active than their cisgender counterparts, compounding existing health and wellbeing inequalities experience by this group. The current study conducted a systematic review of sporadic literature relating to trans, non-binary and intersex people experience of physical activity with the aim of understanding how individuals negotiate and experience physical activity environments. Systematic searching of 8 databases and screening highlighted 30 academic papers for review. Narrative synthesis of the experiences of trans, non-binary and intersex individuals formed a three-layer model of influence. The first layer encapsulated the systemic and systemic influences such as transphobia and trans moral panic. The second layer included external influences such as others behaviour, gendered spaces and exclusionary policies. The third layer was made up of internal influences such as internalised transphobia and gender concealment. The focus on fitting gender non-conforming individuals into a binary system through gendered spaces, pressures to switch teams and provide 'proof' of gender conformity sets a dangerous precedent of the physical activity space as an unwelcoming and unsafe place for those who do not conform to the gender binary. If there is every a hope to address the health inequalities faced by the trans, non-binary and intersex community, the focus must move away from conformity and the debate of 'fairness' towards true inclusion and creating an environment where gender minorities can feel safe to engage with physical activity.

It is well established in the current body of literature that physical activity is good for health, reducing premature mortality as well as providing primary and secondary prevention of numerous chronic medical conditions (Warburton & Bredin, 2017). Even small amounts of physical activity have been shown to lower the risk of mental health issues in adults (Teychenne et al., 2020) and a scoping review demonstrated that physical activity interventions of varying intensities reduced anxiety and depressive symptoms in young people (Pascoe et al., 2020). A burgeoning body of literature supports the use of physical activity as a treatment for common mental health issues (Kvam, Kleppe, Nordhus, & Hovland, 2016; McNally, 2020; Stathopoulou, Powers, Berry, Smits, & Otto, 2006). Guidelines produced by the World Health Organisation (World Health Organisation, 2020) and the National Institute for Health and Care Excellence (National Institute for Health and Care Excellence, 2009, 2013) recommend the implementation of physical activity as a standard treatment for common mental health issues in adults and children. Yet, certain minority groups face a variety of challenges and barriers when accessing healthcare and leisure facilities in the UK (Hossain & Khan, 2020; Ige-Elegbede, Pilkington, Gray, & Powell, 2019). The disparity and inequality of experience faced by minority groups can be explained by the 'Minority Stress' model (Meyer, 2015); the additional stresses imposed upon minority groups due to marginalisation, oppression and discrimination. One specific group facing barriers to access to physical activity is the lesbian, gay, bisexual, transgender queer and intersex (LGBTQI+) ¹population (Gorczyński & Brittain, 2016). This paper utilises '+' to refer to the encompassing of all sexuality and gender identities existing beyond the named LGBTQI, when using this abbreviation. Additionally, this paper is

¹ LGBTQI+ and its synonyms (e.g. LGBT, LGBTQ, LGBTQIA+ etc.) is an ever-evolving acronym that seeks to act as an inclusive term representing all sexualities and genders. The letters 'LGB' refer to specific sexual identities of 'Lesbian' 'Gay' and 'Bisexual', the T for diverse gender identities existing within the 'Trans umbrella'. 'Q' stands for 'queer', a word that some within the LGBTQI+ community have reclaimed as a celebratory symbol of subverting social norms, and the 'I' represents intersex people. The '+' refers to both sexuality and gender identities existing within the community, but not named within the acronym.

focused on self-identified gender identity, and whilst mentioning biological sex in relation to the ambiguity relating to intersex individuals, biological sex is not the focus.

The 2017 report '*LGBT in Britain - Hate Crime and Discrimination*' produced by Stonewall highlighted through YouGov polling of over 5000 LGBT individuals that the discrimination and abuse experienced by the community extends significantly beyond violent attacks and hate speech (Bachmann, 2017). Many LGBTQI+ people experience personal and systemic discrimination within health, education and public service settings, thus engaging in tasks essential for daily life may be experienced as disproportionately challenging. The LGBTQI+ community experience clear health disparities, such as higher rates of victimisation, mental health issues and substance abuse issues, as well as lower rates of routine check-ups and social support (Mollon, 2012). LGBTQI+ people are more likely to experience mental distress than the general population (Haas et al., 2010), with LGBTQI+ young people being recognised as a high risk group for mental health distress and suicidality (McDermott & Roen, 2016). Literature suggests that despite the increased risk, LGBTQI+ young people are less likely to seek help until reaching crisis point due to a cycle of normalising distress (Hughes, Rawlings, & McDermott, 2018). The potential protective and anti-depressive effects of physical activity on mental health could be of great benefit to the LGBTQI+ community. However, recent research suggests the LGBTQI+ population is less active than the heterosexual population (Brittain & Dinger, 2017). The results of a health survey conducted by the National LGB&T Partnership (2015) found that 58% of LGBTQI+ people did not meet the minimum physical activity levels to maintain good health, compared to 41% in the general population.

There are a variety of different attitudes, barriers, and facilitators the LGBTQI+ population face when trying to access physical activity and sport, that could in turn have a negative effect on the individual's mental health. A study exploring the experiences of lesbian women highlighted barriers that contributed to lower activity levels, such as fearing ostracisation in changing facilities and the lack of

recognition of same-sex families in family discounts (Brittain, Gyurcsik, & McElroy, 2008). A different study reported half of LGB (lesbian, gay and bisexual) participants felt discomfort about being in a gym environment and experienced pressure to look a certain way to justify their sexuality, creating both practical and social barriers around physical activity (VanKim, Porta, Eisenberg, Neumark-Sztainer, & Laska, 2016). A review of LGBTQI+ exercise literature highlighted LGBTQI+ friendly environments and peer-based facilitation as facilitators of physical activity in lesbian and bisexual women (Rizer, 2015). Despite the current literature being fragmented, it appears consistent that the LGBTQI+ community as a whole experience specific challenges that contribute to inactivity, that are not faced by heterosexual cisgender people².

The body of literature relating to LGBTQ+ physical activity and health is limited, yet there is even less known about the specific needs of the trans population. 'Trans' is an umbrella term used to describe people whose gender identity does not align with the sex they were assigned at birth; this could be in the form of binary trans identities, such as trans man or trans woman, or non-binary trans identities, such as gender-neutral or gender-fluid. Trans, non-binary and gender non-conforming individuals experience actual and perceived resistance as a result of their increased visibility; referred to as 'trans moral panic'. The existence of trans people is often deemed incompatible with 'patriarchy', defined as structures, systems or societies in which male dominance is upheld. Patriarchy values masculinity at the expense of women and femininity, thus creating an oppressor/oppressed power structure. Patriarchal societies rely upon inhabitants performing expected gender roles, identifying non-conformity as deviant or immoral, and punishing those existing outside the binary (Becker, 1999; Hoskin, 2020). Gender diverse people as a collective, like women, are subjugated within patriarchal structures that uphold male-dominance and center around masculinity (Hoskin, 2020). Despite their shared oppressed status,

² Cisgender refers to individuals whose gender identity aligns with the biological sex they were assigned at birth

trans people may experience further ostracisation from some within the women's rights movement. Feminism as a political and philosophical movement demands criticism of gender (with regards to gender roles, stereotypes, and norms) as a means to subvert patriarchal demands. However, there exists a divide between 'trans-inclusive' and 'gender-critical' feminism, with some but not all factions of the latter increasingly associated with the term 'TERFs', Trans-exclusionary Radical Feminists. TERFs espouse a biological sex-essentialist form of feminism, believing the inclusion of trans individuals to be incompatible with the movement (Pearce, Erikainen, & Vincent, 2020). Notably however, the 'TERF' label may be experienced by some as merely descriptive of a particular philosophical position, and by others as an offensive slur (Bettcher, 2017). Consequently, one recommendation is to apply caution using such terms when seeking to have productive conversations across deep differences, especially when otherwise showing commitment to policies of self-identification (Bettcher, 2017).

There is a small body of research that highlights the specific issues faced by trans people when trying to access healthcare. The lack of trans awareness and appropriate training for healthcare professionals, inaccessible gendered services, inappropriately gendered paperwork and fear of not being taken seriously were the most commonly reported issues for trans people when seeking healthcare (Guadalupe-Diaz, 2017; Pryor, 2019; Zwickl, 2019). Little is known about the specific issues faced by the trans community when accessing physical activity, nor the impacts of these experiences on their mental health. In the National LGB&T Partnership (2015) report, 64% of people who identified as gender diverse (gender identities other than cisgender male or cisgender female) were not physically active enough to maintain good health.

When considering the obstacles trans people must negotiate to access basic healthcare, and the difficulties the wider LGBTQI+ community faces when accessing physical activity, it can be suggested that using physical activity as a treatment for common mental health issues experienced by trans people may be much more complex than for heterosexual cis-gender people. The current study aimed to bring

together the disparate body of research on gender diverse people's (defined in this paper as people with binary trans, non-binary trans and intersex identities) experiences of physical activity and sport. By doing so, it aimed to contribute to the development of a better understanding of the reasons for high levels of inactivity, and what issues needed to be addressed to make physical activity a suitable intervention for common mental health conditions in gender diverse people.

Methods

This systematic review was conducted following the PRISMA guidelines (Page, 2020) with the study protocol published through PROSPERO (Reference: CRD42020219480).

Searches

In November 2020 systematic searches were undertaken using the following literature databases: OvidMedline, PsycArticles, PsycINFO, Embase, AMED, Global Health, SportDiscus, Scopus. Additional citation searching was conducted on all research papers selected for review. Seventeen search terms were used to define trans participants (Trans/trans*, Gender/gender*, transgender, transgendered person, transsexual, gender identity, sexual and gender minorities, gender dysphoria, non-binary (nonbinary, non binary), gender diverse, gender nonconforming, female to male transgender, male to female transgender, genderqueer, genderfluid, agender, intersex). Five search terms were used to identify physical activity literature (Physical activity/activit*, exercise, sport, athlete(s)/athlete*, fitness). Additionally, five transgender specific academic journals were hand searched using the same search terms (International Journal of Transgender Health, International Journal of Transgenderism, Transgender Studies Quarterly, Transgender Health, LGBT Health). Search terms, database and specific

journals were selected through consultation with experienced researchers in the field of sport and gender, and in consultation with lay members of the trans community.

Inclusion and Exclusion Criteria

Articles identified during the search process were initially screened by reading the title and abstract to establish if the articles satisfied the inclusion criteria. Further full text screening was conducted for any articles that satisfied the inclusion criteria or where it was unclear from the title and abstract.

Table 1: Inclusion/Exclusion criteria

	Inclusion Criteria	Exclusion Criteria
Study Type	Any date Presenting original findings	Not available in English language Non-original findings e.g. reviews, editorials
Participants	Self-identified trans, non-binary, intersex or other gender identity outside the binary male/female Clear separated gender diverse sample (e.g. transgender/non-Binary/genderqueer)	Generic LGBTQI+ sample No clear gender outside cisgender
Physical Activity	Results reporting experiences of physical activity (past or present) Any type of physical activity or sport	No physical activity

Quality Assessment

The critical appraisal skills programme check-list was utilised to assess suitable quality of the studies considered for review (Armstrong-Moore, Haighton, Davinson, & Ling, 2018). As the number of studies identified within the relevant research area was small, low research quality was not used as a reason for exclusion.

Data Extraction and Synthesis

Data from the articles was extracted and entered into an evidence table. The following information was extracted from each article: author/s, publication date, country, number of participants, participant/s gender identity, participant/s age, exercise type, methodological approach, and key findings. A variety of different methodological approaches and outcome measures were used, which made the extraction and analysis of quantitative numerical data impossible. Narrative synthesis was used to conduct this review, allowing for the analysis and coding of a variety of findings into common themes.

Results

In November 2020, systematic searching of eight academic databases was undertaken to identify any academic papers reporting original empirical findings exploring the experiences of trans and non-binary people, in relation to physical activity. Initial searches identified 3499 papers; eligibility screening brought 30 papers forward to analysis. All papers were published between 2008 and 2020, papers prior to this were often outdated in their approach to transgender identities e.g., looking to cure or correct transgender individuals. The majority of the papers included were published in North America (N=18), followed by Europe (N=11) and Oceania (N=1), with the USA (N=13) and the UK (N=11) producing the majority of the publications. The publications covered a range of different physical activities, from elite

sport, to recreational fitness and exercise and school physical education. Papers covered a variety of age ranges, with the majority of the papers focused on adult experiences, (N=18) those 18 years and over, with a smaller number focusing on youth experience (N=5) those under the age of 18 years. Finally, 11 papers focused on a wide range of different transgender identities, both binary and non-binary. The larger proportion of papers (N=17) focused on the experiences of people who identified as binary trans identities, focusing on individuals who have expressed the intention or began the journey of social and/or medical transition from one binary gender to another e.g., male to female. Only a smaller number of studies explore non-binary (N=1) and intersex (N=1) identities in isolation.

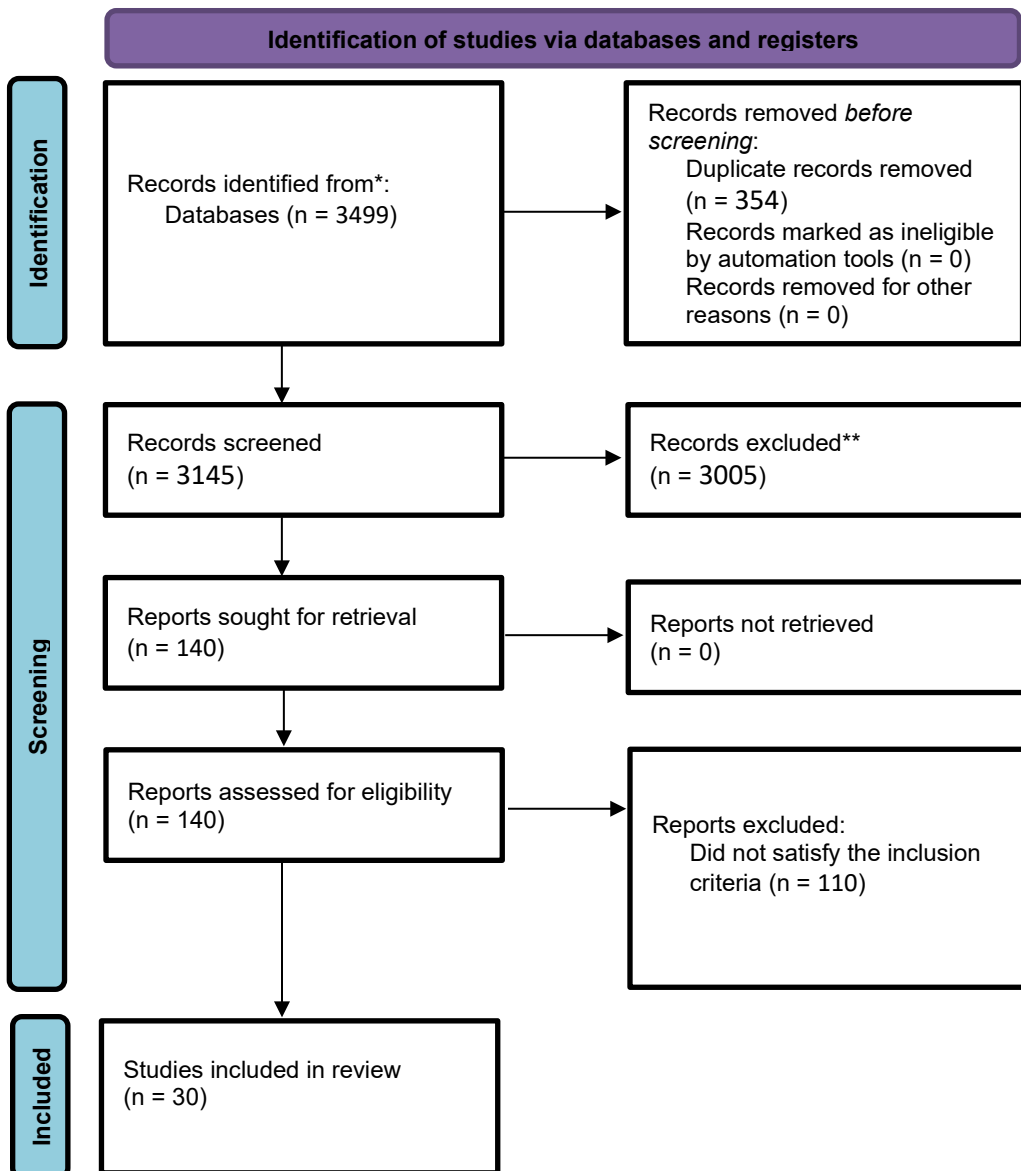


Figure 1: PRISMA Flowchart

Narrative synthesis was used to explore the publications and identify themes of discussion. Three clear layers of influence were identified that impacted on trans and non-binary people's experiences and access to physical activity: systemic influences, situational influences, and internal influences (see figure 2). Systemic influences referred to wider theoretical concepts and societal oppressions that influenced the way trans and non-binary people experience all aspects of their life, including physical activity. Situational influences grouped all the external oppressions caused by specific situations, cultures or individuals that influenced the way trans and non-binary people experienced and engaged with physical activity. Finally, the third layer was internal influences which grouped all the personal beliefs and behaviors of trans and non-binary people that influenced the way they experienced physical activity.

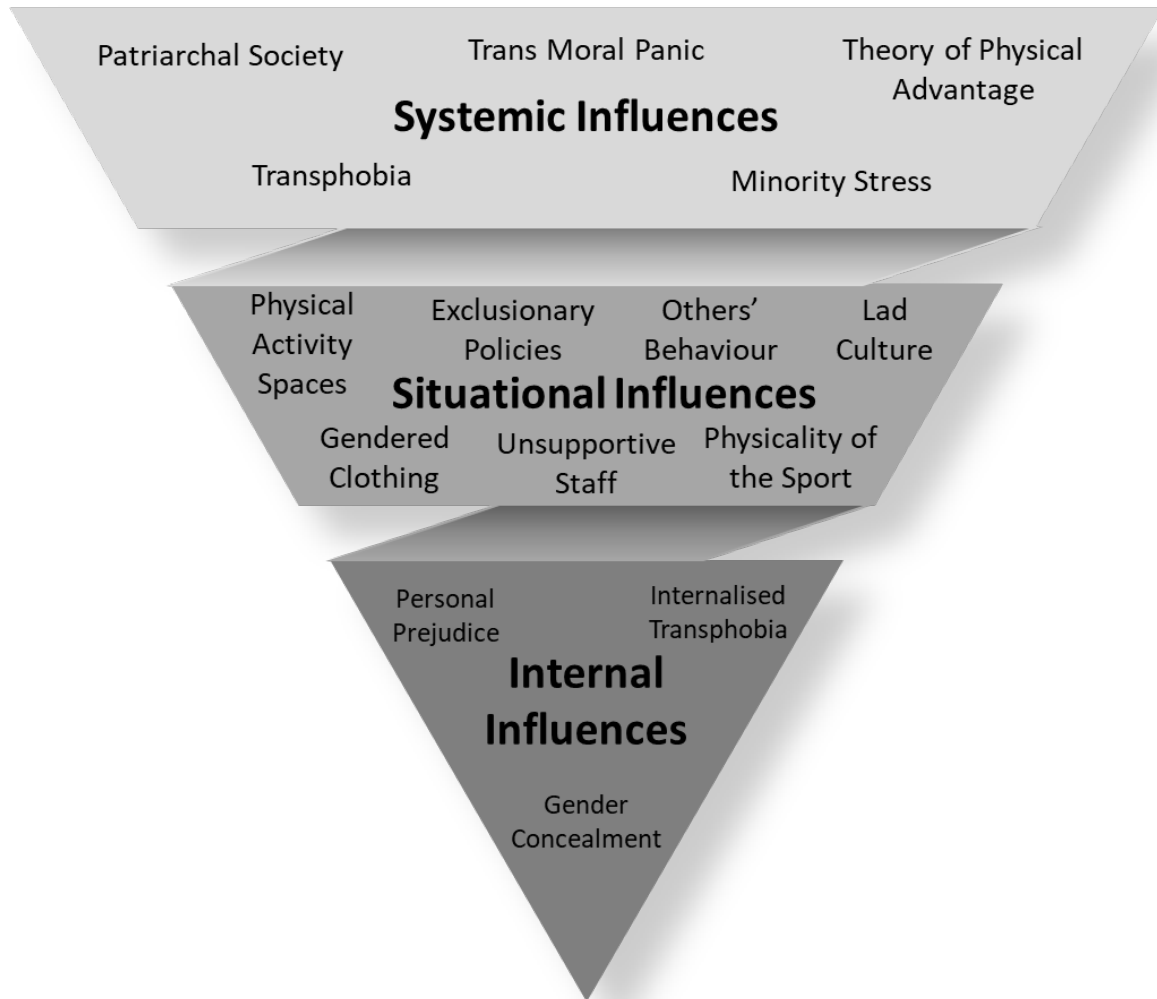


Figure 2: Three layers of influence on trans and non-binary people's experiences of physical activity

The first layer of influence discovered in the current review findings encompasses the societal and systemic influences that shape the way an individual from the trans and non-binary community experience and interact the world. Transphobia, the dislike, or prejudice towards trans and non-binary people, can come in many forms beyond the direct discrimination and abuse that the term brings to mind. The misrepresentation of trans and non-binary people as a threat to the freedoms, rights, or safety of others, often accompanied by subsequent trans moral panic, is a common way of undermining the importance of recognising the trans experience. The social perception of trans and non-binary

people as a threat was evident throughout the papers reviewed, which reported social marginalisation (Herrick, Rocchi, & Couture, 2020; Greenspan et al, 2019), misrepresentation (Elling-Machartzki, 2017) and direct physical and emotional abuse (Cunningham and Pickett, 2018; Krane, 2019; Hartmann-Hews, Menzel, & Braumuller, 2020), that resulted in gender diverse people self-excluding from everyday activities such as physical activity to protect themselves (Hargie, Mitchell, & Somerville, 2015). Minority stress theory was often used to frame the trans experience in physical activity and provide context for the unique experiences of social exclusion faced by the trans community. Whilst parallels can be drawn to other minority group experiences, the fluidity and ever-changing nature of gender identity and gender expression often invites criticism in a way that ethnicity, disability, and other identity markers do not (Hargie, Mitchell, & Somerville, 2015).

There was a clear discussion of the social stigma and victimisation related to transgender identities, sometimes known as trans moral panic. Several studies described participants experiencing discrimination and abuse at the hands of others under the guise of public safety, with gender non-conforming bodies framed as a threat to the safety of children and female only spaces (Erikainen et al, 2020; Elling-Machartzki, 2017). This links closely with the potential connections to patriarchal societal systems; demonstrated in sport by the sustaining cultural narratives of binary sex and gender which prioritises masculine males and feminine females as the ideal (Kauer & Krane, 2013). This is further illustrated by the apparent focus on the perceived unfair advantage of trans women, evident in the discrimination and abuse faced by some trans women, but much less concern about any perceived biological (e.g. increased testosterone) and/or sociocultural (e.g. comparatively greater funding, accessibility and promotion associated with male sport) advantages experienced by trans men (Cohen & Semerjian, 2008; Hartman-Tews, Menzel & Braumuller, 2020; Klein, Paule-Koba & Krane, 2019; Travers & Deri, 2011).

The second layer of influence contained the influences that were external to the individual and instead specific to certain situations, places, or experiences. Most notable was the way in which trans, non-binary and intersex people experience and negotiate changing spaces and toilets. Changing spaces and toilets were consistently mentioned as problematic, causing individuals to feel uncomfortable, unsafe and acting as a clear barrier to physical activity engagement (Caudwell, 2014; Greenspan, 2019). A study by Herrick and Duncan (2018, p. 329) details the experiences of Taylor, a 25-year-old white queer trans woman, who experienced extensive negative experiences when using female only spaces resulting in her feeling her only option is to use male spaces despite feeling unsafe, *“When I have to go through a space that is inherently unsafe for me, to do it. Because I’m technically, whatever that means ‘man’. So, I’d be using the male change room, which is not safe”*. Further, policies and procedures that focus on binary-gendered spaces and sports create an exclusionary environment in which those who identify outside the binary male/female are forced to ‘choose a side’ or ‘prove themselves’ through physical and medical testing that is embarrassing, stressful and even traumatic (Klein, Krane, & Paule-Koba, 2018; Hargie, Mitchell, & Somerville, 2015). The behaviour of others was consistently mentioned as a strong influence on trans, non-binary and intersex peoples’ engagement in physical activity, ranging from ignorance (Farber, 2017) and transphobic microaggressions (Devis-Devis et al., 2017) to overt abuse (Elling-Machartzki, 2017). This was most evident in the discussion of ‘lad culture’; the overt and sometimes toxic masculine environment seen in some men’s sporting environments (Erikainen et al., 2020; Phillips, 2009). Gendered clothing also presented a barrier for many trans, non-binary and intersex people to engage in physical activity. This was especially evident when considering the tight or revealing nature of exercise clothing such as swimwear. Many trans, non-binary and intersex people mentioned the impacts of wearing swimwear something that made aquatic sport inaccessible to them, with others mentioning having to compromise their sporting ability and comfort by wearing clothing that would make swimming difficult e.g. baggy t-shirts (Jones et al., 2017). Gendered clothing was also mentioned

by young people in relation to school sports kit; Finn, a trans man, explained that gendered sports kit was one of the reasons for disengaging with physical activity at school, *"I don't understand the logic of wearing a skirt to play sport, it just doesn't make any sense (laughs) I just don't get it, I never will"* (Caudwell, 2014 p405). Negative experiences of physical activity in schools extended beyond the kit, several studies detailed the inaction and invalidation many trans, non-binary and intersex young people faced at the hands of unsupportive teachers or coaches and how this often resulted in disengagement from physical activity in and out of school (Caudwell, 2014; Greenspan et al, 2019; Herrick, Rocchi, & Couture, 2020). Some experiences were profoundly damaging on the wellbeing of the individual, for example the experiences of Angela, a trans woman competing in women's ice hockey, *"Angela had faced a challenge by the league director of this men's/coed league months earlier when it was demanded of her by the league director that she "drop her pants" to show her genitalia"* (Cohen & Semerjian, 2008 p147).

The final layer contained all the influences that were internal or personal to the individual; encapsulating the feelings of internalised prejudice and transphobia experienced by many trans individuals across the papers reviewed, e.g. *"For me, the biggest issue was self acceptance. I felt like I was cheating. I still sort of do a little bit. I didn't feel like a male playing a female sport, but I felt like I wasn't necessarily a normal woman. You know, and I guess I felt really challenged by my own personal femininity, and I felt like I was cheating because I had played guys sports for so long as a guy."* (Cohen & Semerjian, 2008 p141). Additionally, some participants practiced gender concealing behaviour in an effort to fit in, or to feel they were closer to what they perceived as societal norms; *"Some of those who had used women-only facilities described practices of gendered self-editing to avoid harassment, including adjusting one's gendered self-presentation via clothing and behavior to 'look like they belong.'" (Erikainen et al, 2020). Body image, body dissatisfaction and dysphoria were common themes when relating to internal influences faced by trans, non-binary and intersex people when engaging in physical*

activity. For example, in Jones et al. (2017) participants discussed experiencing heightened awareness of body parts that were incongruent with their gender identity during running or jumping, resulting in feelings of discomfort or avoidance of physical activity. In Greenspan et al., (2019) participants explained being uncomfortable about being seen by others in the locker room.

Alternatively, some studies reported trans, non-binary and intersex people using physical activity as a way to gain acceptance and comfort with their body through body sculpting, muscle building and voice training (Cooney et al, 2016; Elling-Machartzki, 2017; Farber, 2017; Jones et al. 2017). This was particularly prevalent in trans men when discussing gaining a more masculine shape, e.g. *“Many interviewees attested that much advice on the message board revolved around building a strong upper body. Interviews and online discourses also demonstrated that many transgender men involved in fitness aimed to build a large chest but faced difficulties in terms of binding, top surgery and chest dysphoria.”* (Farber, 2017 p259)

Discussion

The findings of the current review bring to light the ever-present societal oppression of minority groups, in this case gender diverse people. There is a level of consistency in the experiences across the studies reviewed, describing experiences of marginalisation, discrimination and hostility experienced by trans, non-binary and intersex people when engaging in physical activity. To understand the experiences of gender diverse people when engaging in physical activity it is important to understand the wider landscape of oppression that has framed this community’s experiences. The legacy of legislation such as section 28 of the Local Government Act, which prohibited the promotion of homosexuality by local authorities between 1988 and 2000, has been catastrophic for the knowledge and understanding around sexual and gender identities outside of heterosexual and cisgender. Without the opportunity to learn about gender diversity, generations of people in the UK have little to no knowledge of the

experiences of gender diverse people. This is likely to have contributed to attitudes of ignorance, fear and even hostility that may not have existed if the wider society was given the opportunity to see and humanise gender diverse individuals. Further legislative attacks on the rights of gender diverse people, such as the shelving of plans to reform the gender recognition act designed to give legal recognition to people with non-binary identities (Government Equalities Office, 2020), all add to the challenges faced by gender diverse people, when negotiating all aspects of life. Within a western societal context, the focus on a restrictive binary system, oppressive and exclusionary legislation and policy, and the lack of knowledge and understanding of gender diversity have all coalesced to create an incredibly challenging environment for gender diverse individuals to live their everyday lives.

Sport has traditionally been dominated by men. Labelled a 'male preserve' by Nancy Theberge (1985). This dominance has been exemplified firstly by higher rates of participation among men than women, particularly within organised sport, and secondly by the lack of female leaders in sport administration and organisation; positions which have historically been held almost exclusively by men (Theberge, 1985). Male privilege can be felt within sport at a sociocultural level, and gender confirmative policies support patriarchal systems that center masculinity and men and are oppressive to cisgender women, femininity and gender diverse individuals. Cisgender people whose appearance, gender expression, sexuality or choice of sport subverts the norm may also experience discrimination in sport and exercise environments, as a result of not meeting patriarchal standards. Cisgender women are historically underprivileged and their safe spaces (including women's sport) hard-won and poorly resourced. Thus, a gender-critical approach may suggest that the request to widen the inclusivity of previously sex-segregated spaces can be felt as a concession of hard-fought ground won from men, the true holders of power. However, Travers and Deri's (2010) exploration of athletes' attitudes to radically inclusive policies within US Lesbian softball leagues demonstrates how widening accessibility within sport and exercise is often welcomed. Athletes of all genders who experience oppression under

patriarchal systems described positive aspects to the inclusivity of their league. In contrast, gender conforming policies of inclusion tend to reify, rather than challenge the sex binary (Cavanagh & Sykes, 2006) and are therefore not considerate of, nor applicable to non-binary or intersex people.

The literature reviewed in this study highlights the number of challenges to accessing physical activity for gender diverse people that are caused by conformity to the gender binary in sport and physical activity systems and spaces (e.g., exclusionary policies, gendered clothing, and problems with changing facilities). The majority of policies that have sought to address gender diverse inclusion within sport and physical activity have focused on how they 'fit' or 'do not fit' within these binary systems and spaces. These policies often use inclusion/exclusion criteria that specify the stage of medical transition at which someone may be eligible to take part in men's or women's sport (e.g., International Olympic Committee (IOC), 2015). As demonstrated by the results of this systematic review, this notion of determining how to best 'fit' gender diverse people into binary systems and spaces raises a number of tensions for many gender diverse people trying to access physical activity. Perhaps most noticeably, this approach to inclusion ignores and excludes non-binary people and others whose gender identity lies outside of the gender binary. However, it also raises tensions for trans women and trans men who do not desire medical transition, or whose transition pathway does not align with the requirements of the policy. In essence, this attempt to 'fit' gender diverse people into binary, cisgenderist (see Peel & Newman, 2020, for a detailed explanation of cisgenderism) categories promotes a detrimental 'one size fits all' approach to gender diverse identities, imposing a universal set of assumptions to all gender diverse people which are used to determine who is included or excluded from sport and physical activity opportunities. These assumptions serve to reinforce the idea of 'fitting' trans people into one normative narrative, rather than celebrating difference.

An alternative approach to making sport and physical activity inclusive of gender diverse people is to look towards a total re-envisioning of how people are categorised in sport and physical activity

systems and spaces, rather than continuing to try to ‘fit’ gender diversity into two rigidly defined categories of female and male. Examples of this in the context of competitive sport include various performance-related categorisations that have been suggested as alternatives to the sex-segregation that currently dominates mainstream sport (e.g., Harper, 2017; Kerr and Obel, 2017; Shin, 2017). See Newman and Witcomb (in press) for further discussion of non-sex-segregated competitive sport. Sex-segregated activities in physical activity settings do exist (e.g., women-only gyms or exercise classes), but are less common than in competitive sport, which is nearly always sex-segregated. Therefore, the re-envisioning of these systems and spaces has been less of a focus in gender diversity inclusion.

Whilst there are less sex-segregated activities in physical activity settings, non-sex-segregated physical activity spaces such as gyms have been found to reinforce heteronormative expectations for men and women (Coen, Davidson, & Rosenborg, 2020) and perpetuate gendered body ideals – strength as the masculine, and thinness as the feminine, body ideal (Ginkel, 2020; Salvatore & Marecek, 2010). These highly gendered, binary and cisgenderist aspects of popular physical activity settings therefore pose barriers for gender diverse people. One method of promoting engagement in physical activity has been the use of exclusive spaces for gender diverse people, for example ‘transgender and non-binary swimming groups’ (Caudwell, 2020)³, which allow gender diverse people to feel safe while engaging in physical activity by removing the high levels of public surveillance and associated barriers that they would otherwise face in binary, cisgenderist spaces. How gyms, swimming pools, and other physical activity settings can make facilities more accessible and inclusive of gender diverse people, without the use of exclusive spaces, is a noticeable gap in the extant literature, as reviewed in this study. We further discuss the opportunities and challenges of exclusive versus inclusive physical activity systems and spaces later in this discussion section.

³ This paper is highly relevant to the review but is not included as it was not published at the point the searches were undertaken

One aspect of gender diverse peoples' experiences in accessing physical activity settings that has been well documented is that of toilet and changing spaces. Historically, gaining sex-segregated toilet and changing facilities for women in public spaces was a hard-won battle that took decades to achieve (Jones & Slater, 2020; Molotch, 2010) and viewed by many women as a necessary 'safe space' from men and male violence (Jeffreys, 2014; Ramster et al., 2018). The vulnerability associated with using the toilet, washing, and dressing, as well as additional privacy needs for some religious women that occur within these facilities, heightens women's fear of male invasion and attack. For this reason, the hostility experienced by gender diverse people, and prejudice exhibited by cisgender people, may be at its greatest and most volatile when discussing bathrooms and changing rooms. Designing infrastructure that eschews sex-segregation for inclusivity with purpose-built all-gender spaces is often viewed by gender diverse people as a more preferable solution than redesigning existing gendered spaces (Erikainen, Vincent & Hopkins, 2020; Jones & Slater, 2020). Cost is often cited as a motivation to avoid 'retrofitting' previously sex-segregated spaces, or purpose-building all-gender facilities, instead encouraging gender diverse people to use disabled facilities which are then rendered as 'genderless'. The appropriateness of combining the use of 'all-gender' spaces with those intended for disabled people must therefore be considered; whilst both groups require safe changing and bathroom facilities, a varying number of functional requirements exist in disabled spaces not related to gender (e.g., specialist toilets and sinks, sufficient space, changing benches and hoists). Furthermore, the conflation of gender diverse and disability spaces creates a situation that could exclude both parties from a space that is intended to meet their needs.

Providing 'safe spaces' for gender diverse people to engage in physical activity is a tool for inclusion that has been successfully used in many sport and physical activity contexts for LGBTQIA+ people more broadly, perhaps the most renowned example being the Gay Games (Federation of Gay Games, 2020). Caudwell's (2020) study of exclusive swimming sessions for gender diverse people

demonstrated the value that private spaces such as these can provide, giving participants a freedom to engage in activity in a setting that removed many of the systemic, situational, and internal influences we found to be barriers to physical activity in the current review. Whilst spaces such as these have been found to facilitate gender diverse sport and physical activity engagement (Jones, Arcelus, Bouman et al., 2017), they can also be viewed as a way of further segregating or marginalizing gender diverse people within sport and physical activity. We posit an additional concern that whilst these spaces are highly valuable, an overly narrow focus on them, or a belief that they are the only way in which gender diverse people can access physical activity, may contribute to an absolution of responsibility from other physical activity organisations, providers, and further stakeholders to work towards greater inclusion of gender diverse people within their own spaces.

Responsibility (and the question of individual responsibility versus collective responsibility) forms part of a much wider, ongoing debate in health behaviour change research (e.g., Brownell, Kersh, Ludwig, Post, Puhl, Schwartz et al. 2010). The results of this systematic review have demonstrated how systemic, situational, and internal influences pose as challenges to gender diverse participation in physical activity. Future work to promote the inclusion of gender diverse people in physical activity should take into consideration the notion of collective responsibility, focusing on how to address both systemic and situational influences raised in this review and hence develop and foster safe, inclusive spaces for gender diverse people. This is the recommended alternative to assuming gender diverse individuals take individual responsibility to tolerate threats to their physical and/or emotional safety in order to be physically active. Furthermore, an individual responsibility approach would serve to focus only on the internal influences on physical activity engagement and ignore the systemic and situational influences that this review has shown to be so prominent in the experiences of gender diverse people in sport and physical activity.

Conclusion

This systematic review aimed to bring together the extant research on gender diverse peoples' experiences of physical activity and sport. By doing so, it aimed to contribute to the development of a better understanding of the reasons for high levels of inactivity, and what issues need to be addressed to make physical activity a suitable intervention for common mental health conditions in gender diverse people. The results of the review demonstrated that this body of literature is currently small and disparate, with closely related research excluded from this review focusing on a generic LGBTQI+ sample rather than gender diverse people's experiences specifically. Whilst we were inclusive of transgender, non-binary, and intersex people in our review, much of the extant literature focusing specifically on gender diverse people largely centered the experiences of binary transgender people (e.g., Jones, Arcelus, Bouman, & Haycraft, 2017). As such, there remains a lack of information around the experiences of non-binary people, intersex people, and other gender diverse people whose identity lies outside of the gender and/or sex binaries. Additionally, within some of the literature reviewed (e.g., Kulick, Wernick, Espinoza, Newman, & Dessel, 2018) different identities within the participant sample are not specified or differentiated between, making it difficult to assess the experiences of, and understand the needs of, different identities within the gender diverse population. It is also important to acknowledge that the studies included in this review, like the majority of the extant literature, were conducted in more economically developed countries (MEDCs). Resultantly, participants are likely to be representative of a white, MEDC sample, and may not be representative of LGBTQI+ people who exist as racial and/or religious minorities, or those living in less economically developed countries (LEDCs).

The current review also highlights the tendency within research to group gender diverse experiences in competitive sport and other non-competitive physical activity contexts together. A considerable proportion of the literature reviewed addressed and examined these collectively, rather than making any clear distinctions between them (e.g., Hargie, Mitchell & Somerville, 2017). There is

also an overall skew, both within the literature and wider media and public focus, on the topic (towards a focus on gender diverse inclusion in competitive (including but not limited to) elite sporting contexts over recreational, non-competitive or other physical activity contexts (see: Magowan, 2018). The lack of focus on non-competitive physical activity contributes in part to a lack of information around the potential impact of physical activity on mental health within the reviewed literature. There are complex and often conflicting considerations to be made when studying LGBTQI+ health and physical activity behaviour. Exercise and physical activity are demonstrated to improve mental health and be associated with higher levels of body image and self-esteem. However, LGBTQI+ youth are more at risk of experiencing low body image and low self-esteem yet are less likely to be physically active (Clark & Kosciw, 2021). Regular engagement in exercise and physical activity is also associated with physical health benefits (e.g., reduced risk of obesity, cardiovascular disease, diabetes etc.) though gender diverse youth experience higher prevalence of eating disorders and are more likely to be both obese and underweight compared to their cisgender peers (Bishop et al., 2020). These contradictions make exploring a complex and varied population even more complicated and requires researchers take due care and consideration when discussing study outcomes, so as to reduce potential bias.

Significant divides exist within the literature and society with regards to perceptions of and approaches towards diverse gender inclusivity and gender-criticism. The current study has adopted a gender inclusive approach, whilst being mindful of the potential for divergent views that may also need consideration. Furthermore, the majority of discourse surrounding perceived advantages of transgender athletes (specifically of trans women compared to cisgender women) exhibits a narrow, biological focus on the role of testosterone, and neglects to consider sociocultural advantages associated with male sport participation.

The results of the current review bring together the extant research on gender diverse peoples' experiences of physical activity and sport, highlighting the need for further work and research in this

area. Specifically, more in-depth research into the experiences of different, distinct gender diverse identities is necessary to understand their needs regarding access to physical activity. In particular, the needs of non-binary and intersex people are less well represented by the current research field, thus further exploration is needed of the physical activity experiences of these populations, their use of physical activity spaces, and any impact upon mental health and wellbeing. More broadly, further exploration of gender diverse experiences of non-competitive physical activity contexts is also required. One major contributor to these contexts is the fitness industry (e.g., gyms, personal trainers etc.) which has not yet been specifically examined in relation to gender diverse inclusivity. Additionally, there is scope for further exploration of gender diverse inclusion and its links to patriarchal systems of oppression, and how gender diverse inclusion could be used to question this and create a fairer system for all.

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