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Biographical note Suzanne Everley

Suzanne Everley is a Reader in the Sociology of Physical Education and Activity and Head of Sport Social Science at the University of Chichester. Her research interests focus on children's experiences of physical education, physical activity and health. Her work is ideographic utilising drawings, photographs and interviews to understand the basis on which children's experiences are constructed in educational settings, both primary and secondary.

Suzanne has been involved in initial teacher education for 15 years and teaches the sociology of sport, physical education and activity at undergraduate level. She has published book chapters relating to visual methodologies in understanding experience, teaching approaches in physical education and cross-curricular teaching.

Keen to share practice, she regularly presents nationally and internationally and is convenor for the British Educational Research Association's Special Interest Group in Sport Pedagogy and Physical Education.

Understanding Gendered Physical Activity of Children: challenging binaried representation
in school-based research

Introduction

Schools are seen as the natural conduit through which health behaviours should be developed and embedded into daily practice; therefore, Government targets policy to include reference to their role in achieving this (DHSC 2015). Part of the current political focus is on the lack of physical activity of children. Herein, there is significant attention afforded to what is perceived as essential differences between 'girls' and 'boys' participation in movement (Scholes & Mindell, 2016). Primary schools have been criticized as being gendered within early years teaching environments and as prioritizing hegemonic masculinities in teaching and learning contexts (Warin & Adriany, 2017). Exercise and activity interventions have consequently focused on how girls and boys as distinct groups might be encouraged to engage in physical activity. Yet, as we continue to face problems in encouraging health behaviours (S Everley & Everley, 2018), considering children to be dichotomised into groups supposedly homogenized by their shared sex could actually be limiting the impact of targeted programmes in school.

The issue here is twofold. Firstly, as gendered identities are socially constructed and processually enacted (C Paechter, 2007) they significantly frame experiences in school (Hamilton and Jones, 2016, Hamilton and Roberts, 2017). Secondly, children are becoming inactive at an earlier and earlier age (Farooq et al., 2017). Understanding how gendered identities interact with engagement in physical activity could help design more nuanced and effective health interventions. When gendered identities are acted out in a school context, such learning is affected by the wider, potentially gendered learning environments that children experience (Kerr, Vuyk, & Rea, 2012) and in particular the teacher-student interactions which reinforce and legitimise gender difference (Consuegra & Engels, 2016). Challenging such conceptual organisation could also prevent the social exclusion of

some children who do not conform to gendered expectations in active behaviours (S Everley & Everley, 2018; Suzanne Everley & Macfadyen, 2015). My interest is in, therefore, the nature of children's embodied experience of gender and social relations associated with the expression of gender in physical activity.

As alluded to above, the body of research in this activity/gender environment has unsurprisingly demonstrated a tendency towards 'continuity rather than change' (Larsson, Quennerstedt, & Öhman, 2014). Thus it is possible to speculate that this may result from continued application of the same methods of research which fail to uncover possibilities of problematizing the issue of health education for children in new ways. Explorations of the nature of the embodiment of 'gendered subjectivities' (Ingrey, 2013) with adolescents have been conducted but there is a distinct lack of such consideration within children of primary school age. Studying this group may be of particular significance as it could identify the origins from which stereotypes begin to frame experience (Suzanne Everley & Macfadyen, 2015).

This paper is therefore constructed with two key concerns in mind: firstly, with respect to the nature of gender in relation to embodied experiences of physical activity in and out of school, and secondly, to the research methods that might facilitate expression of children in order to develop our understanding of gender beyond the binaried femininities/masculinities, girls/boys assessments that have previously been applied. Beginning with a discussion of the representation of gender in physical activity of children the work is contextualised with an exploration of gendered performativity and embodiment as process.

The embodiment of gender

Discourses of femininity present girls as 'passive, neat and built on appearance' (Hill, 2015) with an implied assumption that this will be affirmed through particular behaviours.

Conversely, boys will be defined as the opposite of this, and similarly pursue the affirmation of such rhetoric. This phenomenon has been a particular concern in children's physical education and activity because the embodiment of power has been seen to affect health behaviours and an individual's ability to engage in wider social life. The legitimisation of gender inequality through structured difference in cultural preferences necessarily impacts on children. However, if power exhibited in displays of femininity and masculinity is 'relational, contextual and fluid' (Raftery & Valiulis, 2008) it is unlikely to be consistent for all boys and all girls as separate groups. Therefore, potential exists to actually break down barriers presented through categorization by sex.

Educational settings such as school physical education (PE) and sport are important sites in shaping young identities, supporting well-being and promoting physically active lifestyles. It is concerning therefore that extensive research exists to highlight how dominant and normalised school practices around gendered bodies and physical abilities can be counterproductive to these espoused ideals (Paechter 2006; Azzarito & Solmon 2005). Pressure to conform to particular versions of dominant gendered bodies is reported across both boys and girls (Casey, Mooney, Smyth, & Payne, 2016) conceptualisations of which inevitably lead to associated behaviours and limited engagement.

However, if schools can be ‘disciplining sites’ for such young bodies (Webb, McCaughy and Macdonals 2004, Hill 2015), it is arguable that they also have the potential to challenge stereotypes. Indeed, Hill (2015) suggests that particular kinds of bodies have status or value and are ‘culturally intelligible’ and it is the potential to impact on such intelligibility, challenging gender stereotypes that schools may be able to support children in freeing up identities in order to act in a way of their choice with their peers. Nevertheless, embedded within such action would be the need to contest deeply entrenched expressions of power between and within the sexes (Francis & Paechter, 2015). Within a school context, this involves the gendered interactions between pupils, teacher and pupil and cultural environments (Ward & Quennerstedt, 2016) such as those framed in physical education and free play contexts. These interactions ultimately determine associations with what is considered appropriate for ‘girls’ and ‘boys’ in activity and indeed, how physical behaviours act as indicators of being ‘male’ and ‘female’.

There has been a prevailing discourse of conflict and negotiation between constructions of what it is to be female and that of having an active body within a range of feminist studies (Ivinson & Renold, 2013) – this has arguably transferred to discussion of girls’ engagement with physical activity. Such arguments can also be transposed, somewhat ironically, onto the engagement of boys in physical activity and the need to create masculinized identities; this prioritises the particular types of pursuit and embodiment of gender over others that may be highly problematic for many boys. Linked with development of sexual identities even in younger primary school aged children (Martin, 2011), the privileging of heteronormative representations that occur in later life may be rooted in early experiences of physical activity that is damaging for both boys and girls. Nevertheless, what Laarson et.al. (2014) describe as the ‘yoke of heteronormativity’ can be challenged through redefining engagement with social

spaces and agencies associated with physical activity. Addressing the ways in which physical behaviours determine perceptions and vice versa, and gender identity is strongly influenced by interactive discourse, it is possible to see how changing each of these could lead to new identities.

When we think about schools as places that discipline bodies such as through the work of Foucault (Rail & Harvey, 1995), corporeal passivity is often promoted as a feature of ideal educational subjectivity (Ivinson, Murphy, & ebrary, 2007). However, girls' corporeal stillness is also often interpreted as lacking agency and 'boring' in comparison to boys' 'exciting' movement (Ivinson and Murphy, 2007). This, therefore, has the potential to generate an atmosphere of judgement of boys and girls and is potentially damaging for those children who do not 'fit' such dominant discourses in terms of activity behaviour and/or resultant physical embodiment. However, acknowledging the vast array of individual differences that exist within the classroom, it is evident that there are many children who are unlikely to fit the distinct frames of what it is to be a boy or girl. It is arguable that expectations of physical behaviours emanate from unconscious prejudice and negatively impact on children. It is therefore important that we explore ways of understanding gendered differences of physicality through research methods that are not themselves confined to gender binaries.

Internationally, much discourse by scholars has been devoted to the issue of counteracting gender structures (Larsson et al., 2014; Parker & Curtner-Smith, 2011). Critical issues are often framed in terms of how to include girls and young women in PE (Larsson et al., 2014). This is clearly important but also has implications for supporting boys in becoming physically active. If boys, in many circumstances, are still negotiating contexts that have

strongly demarcated masculinities associated with embodiment (Ivinson & Renold, 2013) they too are marginalized when it comes to accessing opportunities to become physically active. It is those children who exist on the margins of our research approaches that are obscured from our consideration in physical activity gender research and potentially those who are continually missed in our efforts to support children establishing healthy, active lifestyles. It is therefore necessary to ensure that, as we endeavour to understand how gender is experienced in school, appropriate approaches are used to interpret the complexities of what it might mean to be boys and girls in an evolving education system that purports to be challenging stereotypes but that is still subject to criticism for not doing so.

Asking research questions about gendered participation in activity has tended towards presupposed binaried distinctions (Larsson et al., 2014). In particular, even where studies involve mixed participants, the subsequent division of data into that belonging to girls and that belonging to boys, followed by analysis that focuses on the dominant ideas generated within each group marginalises the perspectives of those boys and girls that have not responded in accordance with the majority. This can be seen particularly in the work of quantitative researchers such as Fairclough and Stratton (Fairclough & Stratton, 2005). If our concern is that this may not actually be reflective of all young children's experience, we need to provide the opportunity for participants to more creatively express experience in a way that facilitates a diversity of response; as Guillemin and Westall (Guillemin & Westall, 2008) identify, it is important to utilise methods of investigation that will extend our understanding rather than reinforce dominant discourses. We also needed to ensure that the selection of research tool is accessible to all children taking part.

Exploring the gendered nature of experience requires the utilisation of methods that incorporate identifiable gendered features but that allow expression along a continuum. Cultural signifiers are particularly evident in artefacts produced by children (S Everley, 2018); specifically, those associated with gender feature significantly within the drawings that they generate (Wright, 2014). In addition to this, when asked to consider particular questions, children will visualise their responses in the first instance (Everley, 2018) and therefore generating visual data is more directly representative of experience than other forms of communication might be. In terms of ensuring our own understanding, when working with younger participants in research using drawings as a way of supporting engagement can facilitate interpretation of perspectives as it avoids initial utilisation of verbal articulation (Blodget et al., 2013). Therefore, visual techniques can effectively give ‘voice’ in a symbolic sense.

Children’s drawings have been assumed to present an association of particular colours and content of pictures as attributable to girls/ boys (Wright, 2014). However, it is not always the case that boys embody stereotypical masculinities nor girls, stereotypical femininities. Exploring girls and boys pictured representations of their embodied selves may be reflective of their gendered experiences of physical activity and help create a complex, nuanced representation of how meaning is constructed with respect to this (Everley, 2018).

Presenting visually has been identified as illustrative of the nature of ways that the concept of experience can be ‘known’ (Liamputtong, 2007). Children are seen to have a ‘natural’ or (more arguably) culturally developed affinity to conveying ideas through drawing and this provides a conduit through which their feelings can be expressed. Whilst not all children will enjoy drawing, this has been a recognised means through which children have engaged in

research processes (Kara, 2015) as they form a distinct part of the cultural and educational activities with which they engage in school and are therefore familiar in nature (Everley, 2018).

Drawings incorporate representative meaning for children (Watts, 2010) and elements of conscious choice that are culturally significant (Suzanne Everley & Macfadyen, 2015); they therefore have the potential to convey the gendered complexities of experience.

Methodology

Research context

Research took place in one primary school in a coastal area of the south of England. The school is described by the national inspectorate, Office for Standards in Education as a 'good' school with 'below average' numbers of pupils requiring additional financial or learning support.

As part of this approach to research, it is important to give an overview of the different stories of children within the class. The group includes children requiring support from social services, who are from differing ethnic backgrounds both in terms of nationality and cultural group (e.g coming from overseas or travelling communities); children are from recognizable 'nuclear family' backgrounds but also shared families; some have more than one father within their group of siblings and/or have brothers and sisters who are significantly older than they are. Parents are from diverse educational backgrounds; some holding higher degrees and others illiterate with limited formal education. One child has English as a second language,

but speaks fluently and also has command of three other tongues. Within these contexts parents have differing degrees of input into the child's upbringing and dynamics of family life vary enormously. The point here is that, whilst it is conventional to categorise schools and classes being researched in order to adhere to the sensibilities of standard protocols it is important to acknowledge the diversity of experience that enriches groups and affects their perceptions of whatever topic is being investigated.

Method

The research involved 29 children (15 girls and 14 boys) aged 5-6yrs. Guided by their classroom teacher, the children began by thinking as a class about what the term 'physically active' might mean sharing ideas about how you could explain it, making suggestions such as: 'something that involves moving about quite quickly'; 'it's what makes you go a bit red and sometimes sweaty'; 'it makes you a bit puffed'.

Following this, the children began to think about what they already did that could be considered 'physically active'. They thought about what they did at home and what they did at school. They were then asked to identify a main activity that they engage in most in each context. Imagining it, they considered what they actually do and how they feel about it.

Following this the children drew themselves in each of the situations they had imagined.

The children's drawings were then used as a conduit for discussion with the researcher, on an individual basis, about their experiences of being physically active. Emphasis was placed on the importance of what each child's experiences were and the nature of their personal understandings. Following Everley and Everley (2018) this ensured that the drawings were

understood as adequately and comprehensively as possible and that the opportunity for children to expand on their ideas was offered in order to generate potential for identification of previously unanticipated responses. Contextual information regarding children's family environment, engagement with school and relations with peers was provided through teacher interview.

Data analysis

Data was analysed according to the content and descriptors of physical activity experience with respect to gender signifiers. Such indicators operate with reference to relative detail and size of representations, use of colour and selection of content. According to Turgeon (Turgeon, 2008) when producing free drawings boys use fewer pinks, purples and yellows than girls who are more likely to include pictures that contain flowers and animals. Askeer, Lao and Bosacki (2017) identify that research suggests boys are likely to draw activities that are autotelic or competitive and likely to engage in aggressive games, whilst girls are more likely to engage in co-operative play. These categories of activity were analysed alongside descriptive content in terms of specific pursuit that may be considered stereotypically male/female or non-gendered.

Meaning and content were linked identifying relational elements (Beazley, 2013) that were of significance i.e. those which were presented as having meaning to children such as affecting identity or social relations. Individual contextual family information was then incorporated to create a narrative exploration of gender and the way in which physical activity within and outside of school is experienced by children.

Findings and Discussion

The following section presents the findings with respect to data categorised in traditional binaried forms of boys and girls, considering the nuanced experience of gendered continuums. Differences in experiences are noted with respect to the selection of activity and subsequently with a more detailed analysis of how these are represented through visual methods and the implications of this for understanding gender conceptualisations.

Consistent with expectation, some children did represent themselves in activities and or contexts that conformed with binaried gender ideas. However, within this example, only three boys and seven girls drew themselves taking part in stereotypically heteronormative activities in either a home or school context. For these children there appears to be an embodiment of desirable cultural qualities, consistent with Martin's (Martin, 2011) work on engagement in activity, wherein children make choices considered 'appropriate' to peers. Such arguments that children will draw themselves in culturally desirable contexts ordinarily assume a perspective that this will necessarily be consistent with gendered 'norms' (Everley and MacFadyen, 2015, MacPhail and Kinchin, 2004). However, a question that could be raised is whether the suggestion that children engage in culturally desirable activities that assumes such normative cultural conformity is actually sufficiently sophisticated to really understand the experiences of children.

Considering the group involved in this work, in terms of the most basic form of analysis, drawings did not at all always reinforce assumptions. Within a home context, 27 children drew themselves in what may be termed a gender neutral activity. Of the girls, 14 drew themselves in such activity (4 playing in the park with family members, one walking in a forest, 5 on the beach walking, 3 swimming, and one in role play). One drew herself in a non-gender conforming activity of football. 13 of the 14 boys drew themselves in a gender neutral

activity (5 playing on the beach, 6 swimming and 2 cycling) and one in a gender conforming activity of martial arts. Within the school context, the overview differed but was still not consistent with an expected picture of gender conformity. One boy directly challenged stereotypes in his activity as did one girl; twelve children (6 girls and 6 boys) drew themselves taking part in a gender neutral activity and the remainder (8 girls and 7 boys) presented images that conformed to cultural expectations.

This dominance of non-gender specific activity in children's drawings was a surprise as expectations would have been that there would be evidence that even at this age, children are beginning to adopt conceptualization of gender appropriate behaviour (Martin, 2011) - if children draw themselves in what they perceive to be culturally desirable contexts (Everley and Macfadyen, 2015, MacPhail and Kinchin, 2004) the drawings here may be indicative that the culture is not fully conforming to gendered expectations at this age. On balance, there was a predominance of gender neutral engagement in activity that has not been seen in previous research.

This forms the analysis on a most basic, descriptive, level – however, what was of significance, was that further analysis of the more nuanced representations of experience within children's drawings, also challenged expectations. In many instances, categorising physical activity along stereotypical representational lines proved insufficient in conveying the complexity of experience. The following sections explore the ways in which children's experience of physical activity and self-representation in drawings actually challenges many of the ways in which we interpret children's experiences in gendered research.

This first drawing exemplifies how there was evidence that children incorporated contrasting gender signifiers in their drawings and therefore their experience of physical activities. The existence of combined gendered indicators was seen in interactions of content, colour and detail. This is a Reuben's (boy aged 6) picture of being active at home (Figure 1):



Figure 1. This is me with Zach, I'm playing on the field.

Here, Reuben's use of colours is consistent with gender expectations but the inclusion of detail, and particular detail of flowers is not conformant. In Clara's picture, the dominant colours and lack of detail (e.g. no sky or sun) ordinarily are not stereotypically expected in a girl's picture (Figure 2):



Figure 2. This is me and mummy going swimming at the weekend at the beach and I like to play tag with my mummy at the beach.

Similarly, Bradley's (boy aged 5yrs) colours are consistent with expectations of a boy's drawing, but the high level of detail, not (Figure 3):

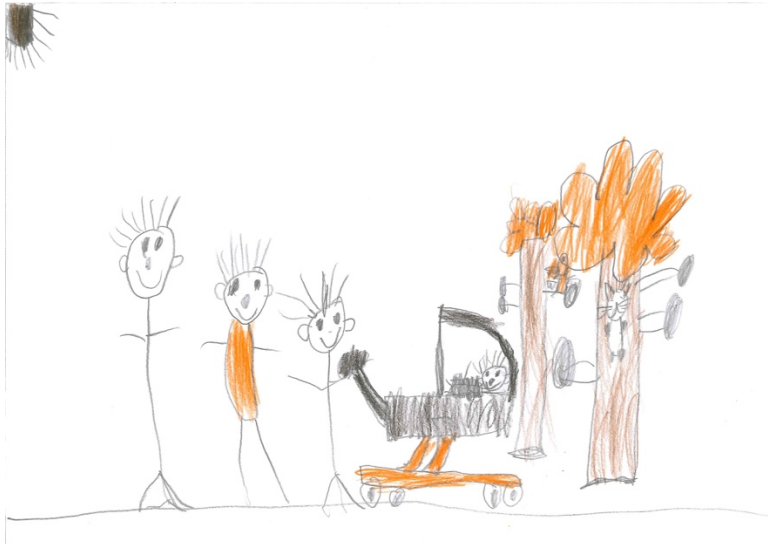


Figure 3. This is me, I'm pushing my baby brother to the park.

Such challenges to stereotypes were also evident in the nature of activities being represented;

Zoe's (girl aged 6yrs) picture is of playing football with her mother and sisters (Figure 4):



Figure 4. Zoe's picture of being active at home

Zoe explains her family interest in football:

'I'm wearing my Liverpool dress and that's my sister, she likes being goal keeper and that's my cousin Eva, she also loves football and that's my Mum, she also loves football'

Clearly, there is family encouragement to engage in a non-conformant activity for girls with respect to wider society, and, equally clearly, this is a cultural expectation of her home environment and not a deviant action in any way. It could also be regarded as deliberately resistant behaviour (Carrie Paechter & Clark, 2016) executed under the direction of, or with the support of her family potentially contributing to a sense and process of empowerment.

However, in a school context, Zoe's picture was more consistent with expectations (Figure 5):

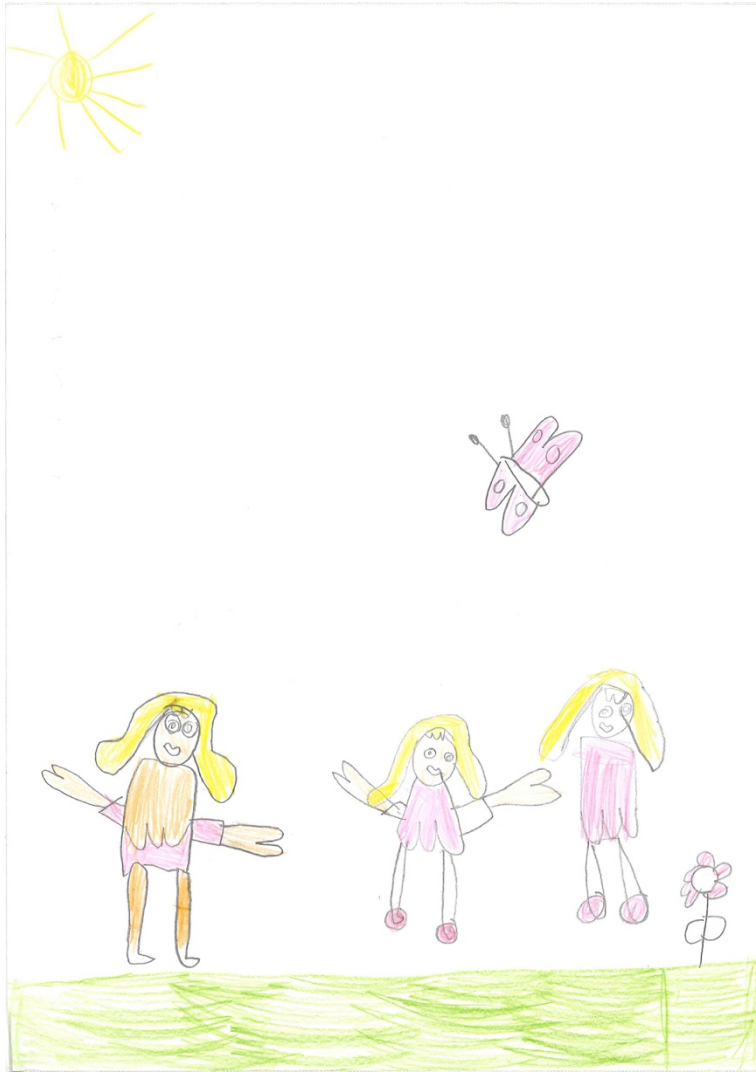


Figure 5. We're running away from Ben – we always play a game together and he gets to chase.

This is therefore illustrative of gendered identities being complex, and/or fluid not only over time but in terms of contexts. Therefore, where there are more convergent expectations of gender, Zoe is compliant with these.

The meaning of these pictures with respect to the way in which they may represent gendered experiences of physical activity becomes clearer when combined with the contextual information provided by the teacher to create a narrative of experience. Consistent with arguments for increased awareness of new definitions of family structure (Quarmby & Dagkas, 2010), for each of these children, family organisation includes challenges to

stereotypical roles and relations. Clara lives on her own with her mother. Reuben frequently plays with his younger sister (aged 3) at home, having a close relationship with her. Both of Emily's parents work and share childcare; each is as likely as the other to collect her after school and she is described by her teacher as greeting them both with an equally high level of enthusiasm; at the time of drawing the picture, Bradley's mother had recently returned to work whilst his father was taking paternity leave to look after a new sibling. Therefore, each of these children was presented with a diversity of potential identities to which to aspire and consistent with the idea that lived gender is relational (Reay, 2001).

Other examples of challenges to stereotypes constructed by children included a preference to play imaginative games. These can be consistent with gendered expectations:

'we're playing invaders...we like, fight the bad guys' (Johnny, aged 5yrs)

or, indeed counter to them:

'I normally play 'cats' with Amy...we pretend we're cats' (Johnny, aged 5yrs)

and thus indicative that gender identity can be contextualized by the social situation that children are operating in.

In this next picture, Alex has drawn himself at home, in the one following, at school. The first includes a greater variety of colours and contextual detail when compared to the second; in this context, the first image also includes elements of type of colour normally associated with girls' drawings (Figure 6).

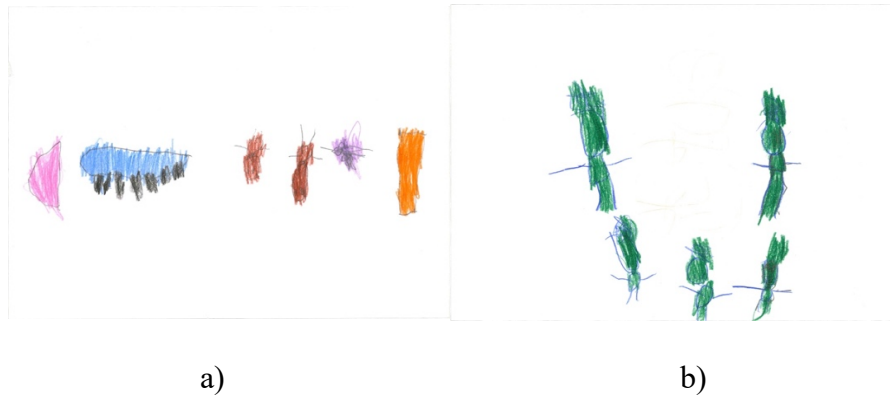


Figure 6. Alex at home (a) and Alex at school (b).

Therefore, whilst children do display some gender indicators in conveying physical activity consistent with their sex, these are not uncontested. The idea that girls' behaviour is necessarily consistent with discourses of femininity (Hill, 2015) is contested along the same lines that boys are essentially the opposite of this. This raises the question of whether this is because gendered behaviours have not evolved into gendered stereotypes or whether there is some kind of resistance to expectations such as those described by Patcher and Clark in their work on gendered 'coolness' in the primary school (Carrie Paechter & Clark, 2016).

Findings, therefore, indicate that the children are indeed 'gender aware' but that this does not necessarily mean this leads into stereotyped behaviour in all contexts. Social arrangements at home indicate that gender relations are evolving into less delineated role functions and that there is indeed a more fluid definition of what it means to be a girl/boy, female/male that is evident in children's subjective experience and lived gender representation therefore consistent with socialization into non-stereotypical expectations. However, although family relations may challenge traditional stereotypes, there may still be school based social expectations for children to present themselves according to binaried definitions of what is appropriate for boys and girls, particularly where peer group contexts dominate (Carrie

Paechter & Clark, 2016). This is consistent with findings that have raised concerns with the strong social nature of engaging in physical activity (Everley and Everley, 2018).

However, cultural and social generation of behaviours are fluid and can equally be reconstructed. Wohlwend (Wohlwend, 2012) has presented evidence indicating that redefining the way in which children interact in gendered activities, can alter predetermined ascription of behaviour; for example, in transforming the way in which boys played with particular props commercially associated with girls. The ‘technologies of practice’ available to children to create and or present relational gendered identities in school (e.g skipping ropes, balls) (Martin, 2011) potentially provide the opportunity to reinforce such divided active play.

Addressing the need to prevent over- conformance to gendered stereotypes could potentially support both girls and boys participation; potentially the use of physical activity engagement itself could also work towards this. Ivinson and Renold (2013) found that girls reference the ‘aliveness’ of their bodies experienced through bodily practices associated with bikes and skateboards. This would be indicative that it is possible to redefine the ways in which expectations of male/female appropriate behaviours are constructed. This applies in terms of affecting orientation towards gendered expectations of physical activity prior to participation and also affecting gendered perceptions as a result of engagement. It then also creates new understanding of possibilities with respect to opportunities that are provided for children and the need to make these gender neutral and therefore more accessible.

Conclusion

In terms of research approach, this study indicates that visual methods empower children and establish the possibility of identifying new ways of seeing. In turn, this may help us unravel some of the challenges in confronting negative sex stereotyped behaviours that disadvantage children as individuals and groups as described in previous research (Hamilton & Roberts, 2017, Francis & Paechter, 2015). Consistent with concerns of Allan and Tinkler (Allan & Tinkler, 2015), there is an argument for the use of visual tools in gender research and the point that many studies may be inappropriately categorising data into that belonging to boys and that belonging to girls prior to analysis. The work presented here suggests that a combination of free expression of experience through drawings to initially generate data, combined with the analysis of gender features within those images, irrespective of whether it has been generated by a boy or girl, has actually enabled the challenging of assumptions about the activity experiences of children of this age.

Key implications of the findings here pertain to the application to girl's perceived and actual lack of participation in physical activity in school, and marginalisation of those boys who are socially and culturally excluded from taking part in gender normative types of physical activity described in previous research (S Everley & Everley, 2018; Suzanne Everley & Macfadyen, 2015; Pawlowski, Ergler, Tjørnhøj-Thomsen, Schipperijn, & Troelsen, 2015). If schools are able to avoid establishing and perpetuating gendered norms and associated reinforcement through challenging structure and discourse as children progress through primary school (Hamilton & Roberts, 2017) they may enable children to resist embodying gendered subjectivities. This could involve simple steps such as ensuring children are not placed into groups according to sex for organizational convenience, but also for example, encouraging gender neutral play activities and/or removing some gender stereotyped free time options such as football that encourage hegemonic masculine dominance of playing

space. Ultimately, this could facilitate the establishment and maintenance of a more healthy engagement in physical activity. As part of performative culture, this could also positively permeate other areas of social and educational life thus challenging wider inequalities.

Gendered behaviours that challenge norms outside of school for some children did not necessarily translate into a school context; this may be indicative of children conforming to dominant cultural expectations of peers and, or, that our schools have the proclivity to allow the reinforcement of gendered division through institutional expectations. This would be consistent with other research that has highlighted the way in which schools add to difference rather than challenge it (Kerr et al., 2012). This, combined with the fact that we have historically felt the need to provide different opportunities for girls and boys in order to try to address inequalities, may highlight that redefining gendered expectations in school or presenting alternative possibilities of what it is appropriate for boys and girls to do e.g during free play, could serve to reduce or minimise the development of inequality in the first instance. It is arguable that the ascription of identities secured through gendered practice (Larsson et.al, 2015) can, and needs to be challenged through alternative representations of what is and can be normative.

In order to achieve this, it is arguable that work to develop children's own gender consciousness could be of value. Children might be supported in thinking carefully about gendered behaviours to become aware of decisions they make and why. If accompanied by gender sensitive pedagogies in class, gender sensitive curricula (Warin & Adriany, 2017) and gender sensitive play environments, this could provide an ideal context to challenge gender restricted health behaviours.

The fact that some children displayed a resistance to gendered 'normalisation' at this age, and that transformative behaviours can challenge stereotypes has been evidenced in other contexts, (Carrie Paechter & Clark, 2016; Wohlwend, 2012) indicates it may very well be possible for schools to resist gendered socialization. Ensuring that teaching environments offer, and acknowledge the value of gender neutral activities and challenge the appropriation of particular activity opportunities by boys/girls may serve to support this development and is arguably an area of concern that is beginning to be addressed by some schools. This may in turn facilitate the encouragement of engagement in physical activity by offering opportunities that are deliberately non-gender specific. As Hill (2015) has suggested, gendered culture is changing within wider society and older age groups and therefore primary schools may have an opportunity to utilize physical activity to contribute to such cultural shifts. Progress could also avoid the materialization of difference and unequal structures ((Sexton, 2017) that we so frequently need to seek teachers' support in challenging in later education (Larsson et al., 2014). The age of the children in this instance may be particularly significant. Research has demonstrated that there is a particular shift in the influences on children's activity between the ages of 5/6yrs and 6/7yrs from family to peers (Everley and Everley, 2018) and therefore, this may be a crucial stage at which changes in gendered behaviours could be further analysed.

Along with other authors, Everley and Everley (2018) and Pawlowski et. al. (2015) have identified the impact that opportunities to play gender specific activities (e.g. football) in free play for European children dominates the gendered engagement in activity and legitimizes gender difference due to influences outside of the control of school. The vocabulary associated with different types of engagement also reinforces problematic perceptions (Hill, 2015). Therefore, attending to the material provision e.g through the play technologies

described by Martin (2011), of gender neutral opportunities to be physically active and associated consideration of the discourse within which such opportunities are presented to children could serve to contribute to the change sought in the health behaviours of children; both girls and boys, irrespective of the vagaries of their gendered identities.

Disclosure statement

No potential conflict of interest was reported by the author

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