Girls and young women’s participation in physical activity: psychological and social influences

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Abstract

The importance of increasing young women’s level of physical activity is recognized as a priority within the United Kingdom and other Westernized nations. This study, conducted in two distinct geographical locations in the United Kingdom, explores the leading influences upon levels of physical activity participation among 75 young women aged 15–19. Through in-depth interviews, this study explores the influence of psychological and social influences, by examining contrasting accounts from those young women who ‘always’ and ‘never’ participate in sport or physical activity. The main differences lie with the always participates, relative to the never participates, reporting more positive images of ‘sport’, positive perceptions of their own ability, low self-consciousness, firm motivations and personal choice to engage in activities and the supporting influence of their friends and family. The study also notes the detrimental impact of life transitions such as moving from college to full-time employment. Further case study analyses reveal the friendship group as the primary influence over all other factors considered. The research concludes by summarizing the influences on physical activity participation that are pertinent to this age group, highlights theoretical implications, suggests possible intervention strategies and reports areas of further investigation that are required.

Introduction

The benefits of regularly participating in physical activity, through casual or organized participation seeking to improve fitness, mental well-being and social relationships, are well recognized [1–3]. The skills generated through more structured sporting activities can also be readily applied to more everyday situations, such as dedication, application and team building. Youth sport programmes, fostering the development of these core skills, have also been suggested as a promising approach to reducing a range of problem behaviours among young people [4] and promoting their social inclusion [5].

There are rising concerns about levels of physical activity, or inactivity, among young people in particular. The ‘couch-potato’ culture has been described as becoming the defining characteristic of contemporary youth lifestyles in the United Kingdom [6–8]. Nationally representative and longitudinal surveys among school-aged children illustrate that boys are more likely to participate in sports and physical activity compared with girls. Also, this gap between the genders becomes more pronounced with advanced age within the teenage years. It is noted that the proportion of girls aged 14–15 that do not participate in any active sports, on a weekly basis, has remained stable between 1992 and 2003 at 15 to 20% [9]. These findings are supported by additional studies and reviews of physical activity participation in the United Kingdom and other Westernized nations [10–16]. These studies clearly demonstrate the particular concern towards increasing girls and young women’s participation in physical activity.
In light of the known benefits of physical activity, the current UK policy agenda advocates the importance of driving up participation among young people [17]. To illustrate, the Every Child Matters Green paper [18] outlines the importance of supporting children to ‘Be Healthy’ as one of its five key outcomes, and within which enjoying good physical health is essential. Increased sports facilities and a commitment to raising the proportions of young people participating in sport and physical education (PE) are outlined. More recently, the Youth Matters Green paper [19] sets out a number of national standards for local authorities. One of these standards refers to providing all young people with access to two hours per week of sporting activity in their ‘free time’.

To support effective health interventions in increasing participation levels among young women, research has a significant role to play. There is a clear need for a greater understanding of the (perhaps yet anticipated) antecedents of physical activity participation. Moreover, to raise levels of physical activity, we must be aware of the factors that influence ‘if’, ‘why’ and ‘when’ young women both commence and maintain their participation. Equally, we must be aware of the factors that discourage or prevent their participation in physical activity. Of the methods available, this type of exploratory investigation into meanings, views and context lends itself to a qualitative approach. Only through a detailed exploration and understanding can recommendations for effective interventions be established.

Relative to other health-related research of international public health significance, such as sexual health and alcohol use, it could be argued that less research has been conducted around the antecedents of young women’s physical activity. However, there are a number of noteworthy studies that place this paper’s contribution into context. Particularly in the United States, researchers have been able to draw on nationally representative surveys, such as the National Longitudinal Study of Adolescent Health involving nearly 18 000 middle and high school students. To illustrate, the sophisticated analyses of this dataset showed important environmental influences on activity levels such as participation in PE programme classes and use of a community centre [20]. Interestingly, this study also showed how the determinants of ‘inactivity’ were different to activity, with greater influence from sociodemographic determinants. As a further illustration, the National Heart Lung and Blood Institute (NHLBI) administers the longitudinal NHLBI Growth and Health Study to examine factors associated with weight gain and obesity in >2000 young girls progressing to adulthood. This longitudinal study showed the influence of age and ethnicity on levels of physical activity. Declining levels of ‘habitual activity’ were associated with an increased age and with black girls showing a greater decline than white girls [21]. Moving from determinants to interventions, a further landmark study was a systematic review of physical activity interventions among young girls aged 12–19 in schools within the United States and Canada [22]. Although examining studies within the last 10 years, it was notable that only seven studies met the quality inclusion criteria, and none had been performed exclusively among young girls (this in itself illustrates the paucity of related research). In conclusion, and although not consistent across all studies, there was a suggestion that school-based, multi-component interventions that were also designed to decrease sedentary behaviour were effective in increasing physical activity in adolescent girls.

Aside to longitudinally designed research and review studies, research in the United States has also been performed more descriptively and has focussed more exclusively on girls. As an example, a study of 77 girls aged 11–14, from two middle schools in the Midwest, employed Likert scale questions to represent barriers to physical activity participation. Notable barriers were feelings of self-consciousness and a pure ‘lack of motivation’ to be active [23]. Although this descriptive study was performed through structured questioning, it is evident that less research has sought to explore in greater detail the meanings, perceptions and beliefs associated with physical activity that is indicative of a qualitative, in-depth exploration.

Research in Australia has also significantly contributed to our understanding of the barriers towards
physical activity among young girls in Westernized countries. Thirty-eight focus groups among young people aged 7–17, from 34 randomly selected schools, were used to explore young people’s perceived benefits and barriers to physical activity [24]. Benefits included social benefits, enhancement of psychological status, physical sensation and sports performance. Barriers included preference for indoor activities, lack of energy and motivation, time constraints and social pressures, including lack of parental support. Adopting an alternative feminist post-structuralist methodology, 32 Australian girls in their final year of school were interviewed and represented a range of different sports and physical activity participation (including those with no commitment to physical activity) [25]. Drawing on the social, cultural and gender structure of society, this study notes the importance of young women negotiating a physical identity. Critically, it found that earlier experiences of PE bore complex and contradictory influences on their relationship to their bodies and their ongoing engagement in physical activity [25]. The study concludes by calling for PE to move beyond the narrow forms of physical expression and beyond the school to more closely link learning to the powerful and defining culture in which young women exist [25].

Turning closer to the location of this study, much of the UK-based research has been qualitative in nature. From group and individual interviews at four schools, 21 young women aged 15 were researched as part of a wider active lifestyles survey [26]. As a side point, this paper notes the difficulties of recruiting a varied sample, with the schools themselves recognized as over-selecting those who were committed to PE. A point that clearly bears reference to the selection procedures reported in this paper. Acknowledging this sample, the positive perceptions of physical activity were centred on self-esteem, energy levels, general health and skills acquisition. School PE was criticized as being out of date, providing a lack of physical challenge and with clothing that increased self-consciousness. A real contribution of this paper is its demonstration of young women recognizing the gender relations, contradictions and ambiguities raised in school PE. These gender relations may result in young women dropping out of PE or choosing to do more activities out of school in single-sex groups [26]. Again based on school PE, some parallels can be made with a UK-based qualitative study exploring the transition of adolescents from inactivity to active participation [27]. This study is rather unique in exploring the ‘what works?’ factors among 31 young people aged 14–15 who were formerly ‘PE averse’ and identified the importance of possessing a performing and achieving physical identify. Also, among girls, gaining self-confidence was a major influence towards increasing activity. In conclusion, the authors call for a move beyond endorsing the benefits of physical activity, towards acknowledging the value of participation from the perspective of these young people [27]. These same authors have continued their work more recently, towards exploring the views and experiences of ‘active’, although ‘non-athlete’ young women. This sub-group of young women attached an increased value towards leisure, and enhancement to their health and well-being [28].

Apart from those studies reported above, it must still be emphasized that qualitative research exploring the determinants of young girls’ physical activity is still rather limited in the United Kingdom. Indeed, a recent comprehensive review of 24 UK-based studies showed that only five qualitative studies had explored girls’ and young women’s reasons for participation and non-participation in sport [12]. These studies were typically small scaled (e.g. six in-depth interviews [29]), and some lacked a defined theoretical framework. The review concludes, as a recommendation, that more qualitative research among adolescents and young people is required and presents an innovative theoretical framework to follow. This recently devised ‘Oxford’ model of sports participation [30] highlights the importance of general policy, socioeconomic and environmental influences, neighbourhood variables (such as public transport, safety and leisure facilities) and individual variables (such as social networks, demographic influences and psychosocial components). The psychosocial factors include perceived benefits and costs, efficacy, support and...
enjoyment; all lines of exploration adopted in this paper. The Oxford model was developed to apply to all age and gender groups. The review concludes by stressing the importance of following a defined theoretical framework when pursuing any qualitative study of this nature. The Discussion section will detail how the findings reported in this paper impact upon our advancement of this Oxford model [30], when applied specifically to girls and young women.

A more recent and substantial study, undertaken in Scotland, is possibly the closest linked study to the one reported in this paper. The study involved a questionnaire survey of 577 girls, focus groups exclusively among girls (182 participants) and diaries completed by 629 girls over the course of 3 weekdays and 1 weekend day [13]. All girls were aged 10–15. This study was influential in highlighting a number of explanations for the non-participation in physical activity among girls such as seeing sport as too competitive, more of a ‘boy’ activity, and not receiving enough support from their parents.

Respecting the contribution of this extensive research in Scotland, this English-based study involves an older age group of young women (15–19 years). Significantly, this age group represents a time where there may be different explanatory factors for participation and non-participation. For example, this age range encapsulates some of the key life transitions which may impact upon levels of participation, such as leaving school, starting employment and forming new relationships which would not be evident among a younger sample. Additionally, further physiological and developmental transitions characteristic of adolescence may impact upon participation activities among this age group. In more detail, adolescence is a transitional process where the developing young person achieves a sense of growing independence and decision-making responsibility. With an increased sense of control and direction over their future behaviour and life course, it is critical that health interventions are pitched appropriately at this time, with the potential to produce long-lasting impacts on health-related behaviour. Moreover, whereas studies among younger age groups often conceptualize physical activity as exclusively school based and structured sport activities, a study among this older age group will review the determinants of physical activity in its widest context. As such, this wider context covers both competitive game contests (akin to sports) and lifestyle activities being pursued recreationally [8].

**Methods**

The primary aim of the research was to improve our understanding of the factors that determine physical activity participation among 15- to 19-year old young women. To meet this aim, our approach was to explore differences between young women who reported contrasting levels of physical activity participation (see forthcoming screening process). More specifically, the two main objectives of the research were to explore and identify:

(i) Psychological influences, such as attitudes, perceptions and meanings attached to contrasting levels of physical activity participation.

(ii) Social influences, such as the role of friends and family upon contrasting levels of physical activity participation.

The research was undertaken in two parts of England, the South East and the West Midlands. The rationale for this was to broaden the research site beyond a single location, utilizing the researcher contacts that the research organization had in these regions. Also, adopting two ‘regional’ sites, rather than more specific locations within these regions, supported the intention to recruit a varied sample of interviewees in a number of domains (as to be detailed). Even with such a varied sample, the sample size dictates that these young women interviewed are not assumed to be statistically representative of all young women aged 15–19 in the United Kingdom.

In both geographical locations, a 2- to 3-min screening questionnaire was administered in a range of different settings including schools, colleges, universities, youth clubs, leisure centres and
employment sites. Critical to the strength of this research, the use of this screening questionnaire enabled the research team to purposively select, from all those that volunteered, a highly varied sample of interviewees. Therefore, the final sample varied in terms of its age (between 15 and 19 years), ethnicity, socioeconomic status, life stage (school, college, university, employed, unemployed), environment (in terms of urban/rural locations and provision of and access to sports facilities and opportunities) and current level of sports participation (including the always and never participates in sport).

The typically 45-min-long in-depth interviews were usually held immediately following the administration of this screening questionnaire, in a private room in the respective site. The atmosphere of the interviews was informal and flexible. While following a semi-structured schedule, there were opportunities to explore areas of interest which were not anticipated in advance. The interviews were broadly separated into two main phases—a ‘descriptive’ phase, followed by an ‘explanatory’ phase. In the opening descriptive phase, the interviewer introduced the topic of interest by asking participants how they spent their spare time. This could be a range of activities, some involving physical activities, others more related to hobbies. Rarely would an interviewee need prompting at this early stage of the interview. To start focussing the interview towards the objectives of the study, attention was then drawn towards school experiences of PE, typically identified as ‘your very first experiences of school PE’. With a timeframe established (most people recollected experiences during first to third year of primary school), the interview explored physical activity outside of school at that same time. Using this historical approach, it was a simplified process to bring people to describe their levels of physical activity at present day. In accordance with the discussion, a key component of this interview was to confirm responses from the earlier administered screening questionnaire concerning their current levels of participation. These classifications included those who ‘always’ participate or those ‘who participate in high levels of participation in sports and leisure time physical activities in every aspect of their lives’ [31] and also those that ‘never’ (at least within the last year) participate in physical activity. Understanding the distinction between the always and never participates is critical to the analytical procedure and also when interpreting the results (see later).

During the second, explanatory phase, the aim was to explore the range of possible influences upon these contrasting levels of activity (including inactivity). This phase commenced completely open ended, inviting the participants to place their own suggestions at the outset. If people had reported changes in their levels of participation since their early childhood experience (in the descriptive phase), then the discussions would centre on possible explanations for this. Depending on the degree of discussion, the interview schedule then used the Oxford model of sports participation [30] as a foundation for factors to consider (see Fig. 1). Within this model, and in view of the objectives, the interview placed great attention to exploring the various influences of their social environment, and numerous psychological (individualized) and social influences upon participation levels. Under each of these areas, the interview allowed explanations to arise inductively.

The research centre’s own Ethical Policy for undertaking research among young people was adhered to during this research. This is a regularly updated document and provides information on protecting participants in research, informed consent, confidentiality and the use of information, feedback, disclosure, expenses and payment and organizational matters. This Policy also includes written procedures in relation to child protection issues and safety for researchers during fieldwork. The two researchers (see later) conducting the fieldwork had full Criminal Records Enhanced Disclosure clearance. More specifically, prior to interview, all the above points were explained to the participants following which they were asked to provide signed consent. This consent was affirmation that they had understood the ethical procedures and, ultimately, that they had agreed to take part in an interview on the proviso that this could be
terminated at their request and at any time with no explanation required. At occasional and timely opportunities during the interview, the interviewer reminded the participants that there were no ‘wrong’ or ‘right’ answers, they had the right to not answer particular questions and/or terminate the interview at any time and the fully confidential nature of responses. It was also important to note that there were no significant ethical issues to report, such as any disclosures that participants may be at harm, and there were no occasions of interviews being terminated. All participants were provided with a £10 gift voucher as a ‘thank you’ and to cover any expenses incurred.

All interviews were recorded with participants’ permission and transcribed verbatim. The transcripts were entered and coded using NUD*IST (6.0) qualitative data analysis software. The transcripts were thematically analysed at three levels. Firstly, common and recurring descriptive and explanatory themes across the entire sample were identified. This involved the identification of a set of ‘master themes’ derived from the first few transcripts, which were then compared with those generated through the remaining transcripts. If new themes were identified through the remaining transcripts, then the earlier analysed transcripts would be scrutinized to note any comparisons. Recurring themes that emerged through this process reflected the shared views and perceptions among participants of the phenomena under investigation. For the second level of analysis, attention was drawn exclusively to those findings generated from young women who reported contrasting levels of participation, including those that always and never participate in physical activity. This comparative approach allowed the analysis to reveal the characteristics of those reporting different extremes of participation, and was greatly facilitated by the carefully constructed screening questionnaire that
preceded the interviews. Given the comparative focus among the always and never, the information derived from the explanatory section of the interviews was more relevant to this part of the analysis compared with the earlier derived descriptive data. Thirdly, a number of case studies with similar backgrounds were analysed to tease out the main influences on the contrasting levels of participation in greater depth. Essentially, this case study analysis involved pairing individuals who had the same background characteristics although reported contrasting levels of physical activity. This typically involved pairing participants who were of the same age and also lived in the same neighbourhood, thus controlling for influences such as leisure facilities, school facilities, public transport, social capital, etc. This was an effective way to remove the effect of these potentially additional influences, and thus explore in greater depth the explanations for the contrasting levels of activity. Readers are referred to the work of Yin [32] as a leader in case study methods and analysis, with many of his techniques used in this study.

Finally, the two researchers were based in their respective regions and were responsible for undertaking all interviews within their own region. Both were qualified to Master’s degree level and were experienced in data collection and analysis and particularly with regard to in-depth interviews. The use of two researchers also provided a degree of quality control, with the researchers sharing their experiences as the interviews progressed and, more specifically, a check they both were focussing on the two objectives of the research outlined earlier. Also, as the analysis commenced, both researchers exchanged their first five transcripts to assess whether the same themes were derived, throughout the three levels of analysis described above.

## Results

In total, 75 young women were interviewed: 35 from the South East and 40 from the West Midlands. As shown in the following Table I, 15 and 17 year olds were the more likely interviewed, although all ages within the 15–19 age group were represented in the data (within both regions).

Ten of the interviewees were from Black and Minority Ethnic groups (predominantly South Asian, and predominantly from the West Midlands). One-third of the sample were at school, one-half at university or college and the remainder employed full time. One-third of the sample were classified as always participates and a further third as never participates, with the remaining deemed as ‘sometimes’ participates.

In accordance with the objectives of the study and the analytical procedures, the results will be outlined by comparing the always and never participates, in terms of their psychological and social profiles. The results will also compare a number of case studies to identify the most prominent influences upon participation levels. It must be stressed that this presentation of results focuses exclusively on the differences between the always and never participates. Findings such as public transport facilities, which for all women were not deemed to be as influential as other factors, are not presented. This comparative and case study approach provides a valuable insight into the factors influencing levels of participation.

### Comparing the ‘always’ and ‘never’ participates—psychological differences

The always and never participates identified four psychological traits that characterized their contrasting levels of engagement in physical activity. Firstly, the young women who always participate in physical activity held a very positive image of sport, and there were frequent comments regarding
the impact that such images had upon their levels of activity. For example:

I think, it [sport] has a very positive image which makes it seem like a very normal and—and good, positive thing to be doing, whereas I s’pose if it—if few people did it, you wouldn’t be so encouraged to do it. (Aged 17—always)

The majority of the never participates also had a generally positive image of sport and physical activity, and easily recognized the advantages associated with participation. However, several participants suggested that two distinct aspects of the image had a negative impact upon their uptake of physical activity. Firstly, several comments were made regarding the perception that to get involved in sport you have to ‘look the part’ and be a fit and healthy person. For example:

I’m—I’m not sure—(um) I’d say it’s a bit out of reach, ‘cos—for me—’cos it’s just (um)—yeah, it’s sort of, all this doing sports sort of thing yeah—lots of fit people—you know—and totally the opposite of me. (Aged 16—never)

Additionally, there were also several comments regarding sport being associated with a ‘towny’ image, coupled with negative issues associated with the clothing that has to be worn when participating. These negative images were particularly prevalent among young women who pursued alternative leisure activities, and it was apparent that there is a strong divide between those who choose to pursue sport and those who do not. As this never participates young woman explained:

I—I don’t know. It’s, like—it’s kind of, two different worlds. There’s like, alternative music and then there’s like, sport and things like that and—I dunno, it sounds really shallow, but I—I’ve never really thought about going to do sports. (Aged 17—never)

Secondly, the vast majority of young women who always participate in physical activity held a positive perception of their own abilities. They also recognized the detrimental impact that a negative perception might have. For example:

It’s very important to me because like I say, I—I like to be good at—good at things, so I—I do feel that if there’s something I’m good at, I want to do more of it … and whereas if I’m—if I’m not particularly good at something and I don’t feel that I’m going to be better at it, I don’t do it as much because I feel it’s always like, fighting a losing battle. (Aged 16—always)

Again, in stark contrast to the always participates, very few of the never participates had any sporting role models to mention and had a very poor perception of their own capabilities to participate in physical activities. This served to justify and reinforce their inactivity:

I think I’m useless at sport—and I know I am. Because obviously, I don’t do any sport—so, I’m not gonna be—I’m not very fit at all. (Aged 17—never)

Thirdly, one of the most striking differences was the contrasting perceptions of self-consciousness connected to physical activity. The young women who always participated reported very low levels of self-consciousness and rarely got embarrassed when participating in sport. They appeared to also have adopted supremely confident attitudes, strengthened by their regular participation. For example:

I don’t care what people—if I like, it’s like, when you do sport, if someone—if it’s really hot and you’re gonna get all hot and sweaty and everything—I don’t really—it doesn’t bother me what people think, ‘cos it’s pretty obvious to them—unless they’re stupid—that you’ve been doing sport—that’s why you look like that. (Aged 15—always)

By contrast, the never participates often cited the anxieties about appearance and feelings of self-consciousness as one of the main reasons for
their non-participation in sport and physical activity. For example:

But I wouldn’t go on my own, ‘cos I’d feel embarrassed to do it on my own. Embarrassed to walk into a gym full of people and then, they’d like, all stop and stare—it’s like, oh! (Aged 17—never)

Fourthly, a most obvious difference was the importance of personal choice and motivation to participate in physical activity. Reflecting the age of the sample, physical activity was rarely compulsory and much more subject to personal decision making. This finding is the closest indication of how much the women actually ‘enjoyed’ participating in physical activity. For the always participates, this drive and determination was evident:

I think it is because, whereas now it’s not compulsory, (um) I’m sure many people do less because they don’t have to, and I think it’s important that you do—and you choose to do it and that you put the effort in to continue that, even when you’re not being made to. (Aged 16—always)

Similarly, the vast majority of young women who never participated in sport and physical activity recognized that as they have got older, what they choose to do in their spare time is very much down to personal choice. They frequently recognized leaving school as a point in which their level of sport participation dropped, allowing themselves to choose whether to participate. This personal choice not to participate indicates instances of where some young women, quite simply, just did not like to engage in any physical activity (and consequently may be the most challenging to respond to any health interventions). For example:

I think that is quite important, actually—’cos when you get to decide for yourself, you can just think, oh—I can’t be bothered to do it today. Or I haven’t got the time to do it. But when you go to school and they make you do it, you do actually have—they do actually provide the time for you to get it done. So—when there’s no-one there to tell you you’ve gotta do it, it’s easier to say, no—I’m not gonna. (Aged 18—never)

As a side issue, but one of clear significance to these 15- to 19-year olds, both the always and never participates agreed that transitions within education, or from education to employment, had a negative impact upon their participation. An increase in workload/coursework as a result of the transition from school to college or lack of energy as a result of moving into full-time employment was the most commonly reported explanation. The impact of these transitions increases the significance of the motivations and personal choices in shaping levels of physical activity. With limited previous evidence reporting the impact of these transitions [27], the detail presented in this paper is a key contribution to the literature. For some, these transitions represent a temporary postponement of activity, for others the impact may be more long lasting. The following extract highlights the impact of these transitions on levels of physical activity, by essential moving an always participates into a present day never. In this example, a combination of time restrictions and a changing social environment are evident:

I used to do loads of sport—I used to loads, especially at secondary school. I don’t know why I did it—it’s just that because there was so much, and it was like, kind of, expected .... But I found at college, it was like, less—’cos less people do it, it’s quite cliquey—the actual social group that does do it—because you’re either with them, or you’re with the people that don’t do sport. (Aged 18—never)

Comparing the ‘always’ and ‘never’ participates—social differences

In terms of social influences, the vast majority of young women who always participated highlighted the positive impact that others have in influencing their activities. Furthermore, most felt that their social life in particular supported their current level
of sport participation. This was mainly due to being part of a social group in which sport is seen as an integral component to a person’s life. For example:

It [social life] supports it, because a lot of my friends do sport as well. It—it becomes a social activity, more than a sporting activity. You might ’phone up and say, what d’you want to do today? And oh, we’ll go—we’ll go for a swim. It’s—it’s part of that social activity. (Aged 17—always)

However, the vast majority of young women who never participated in physical activity felt their social life significantly restricted their option to participate. All young women who never participate in sport and physical activity recognized that the role of their friends had a significant impact upon their decision not to participate in sport. For example:

It hinders it ’cos like, my social life just involves like, seeing your friends or going to the cinema or something with them. Yeah—I mean, if, like—if my social life involved going out with friends to do sports, then you’d obviously do it. But as it doesn’t, it—you know—it’s more like, going to the pub or—going round their house and having a chat or whatever. (Aged 17—never)

Equally, there were also several young women highlighting the view that if the amount of physical activity their friends participated in changed, this may have a positive impact upon their own current level of participation. For example:

I think if they did a little bit more, then I would as well, but I think it is—because they don’t, then I think, well—if I go off to do something else, then I’m missing out on something that they’re doing or talking about … but I think if they got themselves a little bit more involved, then I would—I’d probably definitely get myself involved as well. (Aged 17—never)

In addition to friends, the role of the family was deemed to be a highly significant social influence. The vast majority of young women who always participate in sport reported living in an ‘active’ household, in which parents and siblings also frequently participated in sport and physical activity. There were also several reports of family members acting as role models, as well as examples of participating in an activity alongside a family member. For example:

Because we’re always doing something—we’ll go out as a family to do—do sport together we go and play tennis together. My mum does body combat and swimming. She also does running. (Aged 15—always)

Moreover, these young women also reported high levels of family support, including encouragement to get involved in the activities that their the parents do, and also providing practical incentives such as transport and subsidizing their activities financially. As these young women explained:

They’re willing to pay for like, clubs and stuff—pay for my dancing and stuff like that. And they’ll take me there, and if I need to buy any special like, clothes or anything, then they are willing to buy it for me. (Aged 15—always)

Conversely, the majority of the never participates reported living in an ‘inactive’ household or a household in which only some members were active. There were very few reports of families being active as a whole, or the young women partaking in sport or physical activity alongside family members. For example:

I don’t—I don’t think they do much. Like, my dad—probably fishing—and that’s about it. It’s not very active. (Aged 19—never)

Equally, most of the never participates thought that if their families increased their levels of physical activity, this may lead to an increase in their own levels of participation. As this young women demonstrated:
Yeah—so, if my parents were more sporty and they thought it was more important, then it’s something I’d do a lot more because they would drive me to do it—influence me to do more.

(Aged 18—never)

There were, however, comments suggesting that this level of encouragement has often become too ‘pushy’ once the individual had established a personal disinterest in sport, which may have led to a further dislike of participating. For example:

Maybe, because they were—they could have been maybe a bit pushy—like, I might have said, oh no—I don’t wanna do it. And they’ve said, oh well—you will do it. It was, like, seen as more of a thing that I had to do, rather than what I wanted to do. (Aged 17—never)

Case studies—determining the main influences

The previous results highlight the differences between the always and never participates in terms of their psychological and social profiles. By contrasting these extreme groups of young women, it appears that the main differences lie in the contrasting images of ‘sport’, perceptions of own ability, self-consciousness, motivations and personal choice and influence of friends and family. To extend the analysis, and to tease out the most prominent of influences, a number of case study analyses were performed. These case studies compared individuals in ‘pairs’, five pairs in total, who again reported notable differences in their levels of participation (see Methods). They contributed two key findings as follows.

Firstly, relative to the neighbourhood variables outlined in Fig. 1 [30], and to a lesser extent the life transitions and psychological factors, the influence of family and friends on levels of participation were, in general, much more significant. To illustrate, Gillian (an always participates) and Laura (a never participates) were both aged 19, lived in the same neighbourhood and were similarly positive about the local area. They were both aware of local facilities and opportunities for sports and physical activity. They also reported comparable views about the detrimental influence of life transitions with both having just recently started full-time employment. However, Gillian and Laura were notably distinguished by their friends and family influence. Gillian (always) reported that most of her friends enjoyed physical activity and that her family was described as an active household. Laura (never) reported opposite findings, with a social life that hindered her participation and an inactive family. The following extract from Laura illustrates the importance of family and friends over other influences:

I think it’s the family and friends and that—’cos with the environment, it’s not a bad place to be. There are—there are—I’m sure there are more things to do round here …. I think that your family and friends are like, the biggest influence, ‘cos like, if your family aren’t gonna do it, then you’re not gonna do it and… again, your friends—if your friends don’t do it, then I don’t—you don’t do it, kind of thing. So, I think that’s the biggest influence. (Laura, aged 19, never).

Secondly, the case studies also showed that although family and friends were both significant influences on levels of participation, the influence of friends was particularly strong. To illustrate, Simran (an always participates) and Harjeet (a never participates), both aged 15, lived in the same neighbourhood. Of interest, and perhaps unexpectedly, both reported relatively inactive families. Harjeet notably made the point, however, that despite being an inactive family, her parents had tried to encourage her to participate more regularly but that she felt she was old enough to make her own decisions about how to spend her leisure time. Significantly, both noted the primary influence of their friends, with Simran’s (always) friendship group seen as sporty and active. Harjeet (never), however, reported extreme differences with her friends being predominantly inactive, interested in alternative leisure pursuits, and with sports and physical activity...
not being viewed as a ‘cool thing to do’. An extract from Simran’s interview typifies this primary importance of friends:

I think probably the social ‘cos, obviously—like I said—friends is the most kind of, important—’ cos it really gets you wanting to go into sport and stuff. (Simran, aged 15, always)

Discussion

From a health education perspective, this study has provided useful insights into some of the key determinants of sports and physical activity participation. Critically, this qualitative, in-depth approach has identified a series of meanings, perceptions and beliefs which are able to extend our theoretical understanding of sports and physical activity participation for this age and gender group and identify potentially modifiable determinants for attention in health interventions. As to be detailed, our theoretical advancement will be discussed in relation to the Oxford model outlined in the introduction [30]. It is precisely in this manner that the approach adopted in this study complements the environmental and sociodemographic predictors derived from national longitudinal datasets [20, 21].

From its progressively detailed analytical approach, culminating in case study analyses, this qualitative investigation has demonstrated the particular importance of family and friends in shaping levels of physical activity. Overall, it is reasonable to presume that psychological, individual-based factors may predispose a young women’s likelihood to engage in high levels of physical activity; however, it is the influence of the family and friends which has a more significant influence on participation levels. The case studies extend this analysis by emphasizing the primary influence of the friendship group over that of the family on occasions. This concurs with theories of adolescence with the influence of the social life becoming more significant for older teenagers than the family influences that characterize early childhood (see later) [33].

It is significant that these influences have been echoed elsewhere, with research calling for an appreciation of young people’s lives ‘in the round’, acknowledging the interdependencies young people have with their friends and parents [8]. Previous research into younger age groups also highlights the importance of perceived capabilities and lack of parental support as factors hindering level of participation [13, 24]. Note that this preceding study [13], among younger age groups, reported less of an influence connected to friendship groups and self-consciousness; factors which may be most applicable to women of slightly older age and which support the findings from the case studies and elsewhere [23, 26]. Although among a wider age band, and with the responses by age group not being reported, the influence of the social friendship group both having a positive (socializing with friends) and negative influence (peer pressure not to engage in physical activity) has been shown previously [24] and again affirms the findings reported in this research. Furthermore, although the study reported in this paper was exclusively among young women, the results go some way to improving our understanding of the difference in gender perceptions of sports and physical activity participation [34–36].

A further contribution of this research lies with an improved theoretical interpretation of sports and physical activity participation, in particular relation to the Oxford model outlined in the introduction [30]. The Oxford model was originally developed to theorize sports and physical activity participation irrespective of age and gender. As such, this research is able to propose a refinement to this model when applied specifically to 15- to 19-year old women. The findings from this research would suggest a greater weighting to the psychosocial factors, in particular to image, perceptions of own ability and self-consciousness. We would also propose to include a greater reference to personal choice and motivation, and a greater importance attached to family and friends (the latter most of all). In consideration of adolescent theory [33], these propositions are in tune with existing knowledge in this area. That is, for young people passing through
adolescence, factors such as image, self-consciousness (possibly more salient for young women) and a growing influence of the friendship group are increasingly recognized and well documented. Furthermore, unique features of this age group are the life transitions that they experience. With this in mind, the life course element of the Oxford model could show more specific reference towards the various transitions applicable to these age groups. These transitions include movements from school to college, college to university, school or college to employment or unemployment, as well as progression in cohabiting/marital relationships.

Having identified these influences, the question arises as to how to build on this information to tailor interventions towards young women in increasing their uptake of physical activity. A number of propositions arise:

(i) Providing encouragement and guidance for families to be more supportive towards their children’s sports and physical activity participation (even if they are infrequently participating themselves).

(ii) More friendship-focussed interventions promoting sports and physical activities, which are inclusive of all friends in the group irrespective of their own abilities.

(iii) The provision of more women only sessions or facilities, to reduce anxieties over self-consciousness.

(iv) Providing enhanced support to young women during key transitions in their lives where levels of sports participation may be affected e.g. during the transition from secondary school to college or university or leaving school for employment.

Admittedly, this research has taken an extremely broad-brush approach to understanding the reasons for differing levels of physical activity. Together with the size and purposive nature of the sample, the study has generated a number of areas which warrant further investigation before definitive conclusions can be drawn. In order to drive up participation among 15- to 19-year old women, this research has identified three key areas of interest. Firstly, having identified the influence of families, more research is required to understand how this influence operates in detail. It would be informative to know more about whether family participation in physical activity is essential or whether family encouragement or interest (without activity) can be equally effective. Similarly, the extent to which financial and transport support is significant, as well as identifying the primary influence from within the family (parent, siblings, etc.) could be interesting areas to explore further. Secondly, more research is required to unravel the friendship influence on participation levels. It is arguable that, rather than friends overtly encouraging or discouraging participation levels, it may be the case that young people tend to gravitate to peers who share similar attitudes in life, one of which is a similar viewpoint towards physical activity. Thirdly, more research could focus on exploring the beliefs and attitudes of young women who have recently moved from never to always participating in physical activities. Understanding in greater detail the triggers for this important shift from never to always may identify the most influential determinants of physical activity for this age group [27].

As a final note, this study has highlighted some useful pointers to raise activity levels among a population subgroup noted for its relatively high proportion of inactivity. It is clear from this study that these young women face particular challenges to overcome the detrimental impact of their life transitions upon levels of participation in physical activity. Understanding the key psychological and social forces at work is essential in enabling these young women to bridge these transitions and establish a level of physical activity which will stand them in good health for their adult life. The results in this paper and the previous work exploring the transition from inactivity to activity [27] represent a useful grounding for any subsequent investigation. Overall, as for attitudes, beliefs and perceptions about a variety of leisure pursuits, it appears that the influence of the friendship group is a prominent influence on levels of physical activity for this
age group. Although the assumed aim is to promote physical activity across the board, researchers and health educators must also recognize that, for at least for an unknown proportion of young women, their disregard for sport and physical activity will not be affected by health interventions (note the lack of ‘motivation’ reported in earlier studies [23, 24]). A key challenge is to identify where this point lies, to ensure interventions are cost-effective in targeting those that are most amenable to change. Equally, the importance of implementing interventions which are subject to a methodologically sound and rigorous evaluation is paramount.

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Conflict of interest statement

None declared.

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