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Why do young women drop out of sport and physical activity? A social ecological approach

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ABSTRACT • This study explored significant individual, social, and environmental factors and how they interact to influence participation in physical activity for adolescent young women. These factors were explored at two transitional life stages: from primary to secondary school and from middle to upper years at secondary school. Ten focus groups with young women and 10 interviews with teachers were conducted and multiple, interrelated themes emerged. Our findings indicated that there are a number of strategies that could be undertaken to increase the participation of young women in physical activity. These include: (1) enhancing intrinsic motivation for sport and physical activity; (2) appealing to young women's need for socialising through opportunities for informal physical activity; (3) educating parents about the benefits of sport and physical activity; (4) overcoming gender stereotypes about what is acceptable behaviour for young women; (5) improving physical education teachers' understanding of gender issues and motivating less physically active students; (6) the provision of accessible sport and physical activity facilities, programs, and services in schools; and (7) prioritisation of sport and physical activity in the school curriculum. These strategies are not 'quick fixes', but rather require a whole-of-community approach and, in some cases, a reorientation of societal values.

Key words: physical activity, sport, physical education, adolescent, young women, social ecological framework, qualitative

Introduction

A number of reports and studies have documented the benefits of sport and physical activity (Steptoe, Edwards, Moses, & Mathews, 1989; US Department of Health and Human Services [USDHHS], 1996; Stephenson, Bauman, Armstrong, Smith, & Bellew 2000). For adolescents, sport and physical activity can increase capacity for learning, promote social well-being and physical and mental health, and introduce skills such as teamwork, self-discipline, leadership, and socialisation (Field, Diego, & Sanders, 2001; USDHHS, 2000).

Participation in sport and physical activity for adolescents, particularly for young women, is less than optimal and it appears that the age that young women drop out of sport and physical activity is getting lower (Australian Bureau of Statistics [ABS], 2003). Five to 10 years ago, the biggest drop-off age for young women was around 16 years; however, recent evidence suggests a 50 per cent drop off from sport and physical activity for young women aged 10 to 14 years (Environment, Communications, Information Technology and The Arts References Committee, 2006). This decline may be partly explained by the important life transitions that occur for young women from the ages 12 to 15 years and 16 to 19 years. Humbert et al. (2008) suggested that moving from primary to secondary school might be a key transition that influences participation in physical activity. Despite the importance of this transition, the implications of it for health beliefs and health-promoting behaviours have only received minimal research attention (Humbert et al., 2008).

Review of the literature

Social psychological theories

Social psychological theories have been used with moderate success to explain the physical activity of adolescents. Three of the more common theories include the theory of planned behaviour (Ajzen, 1985, 1991), social cognitive theory (Bandura, 1986, 2004) and self-determination theory (Deci & Ryan, 1985, 1991).

Self-determination theory (Deci & Ryan, 1985, 1991) proposes that motivational types form a continuum ranging from extrinsic to intrinsic motivation. Research has shown that self-determined forms of behavioural regulation have positive outcomes for young people (Ntoumanis, 2001). For example, extrinsic goals negatively predicted, whereas intrinsic goals positively predicted, self-determined motivation, which in turn positively predicted quality of life and exercise behaviour for British adolescents (Gillison, Standage, & Skevington, 2006).

Although social psychological theories provide an understanding of the individual and micro social factors that influence participation in physical

activity, such approaches alone cannot inform the development of intervention strategies that target changes beyond the individual level. Also, what we do not know is how these factors interact with the broader social, environmental, and policy factors that influence participation in physical activity. To this end, social ecological frameworks show some promise in guiding research.

Social ecological framework

Since the early years of the growth of the field of health promotion, frameworks have emphasised the need to consider areas beyond psychological and social variables, such as supportive environments and policies (World Health Organization, 1986; Green & Kreuter, 1999). Social ecological frameworks take into consideration the multifaceted influence of individual, social, and environmental/policy factors interacting and influencing participation in physical activity (Stokols, 1996). This approach allows for the integration of multiple contexts to establish a comprehensive examination of determinants (Oetzel, Ting-Toomey, & Rinderle, 2006).

A range of individual factors influence participation in physical activity for young women. These include lack of time, self-efficacy, attitude, perceived behavioural control, enjoyment, concerns about body shape and weight management, individual autonomy, and pressure to conform to popular ideals of beauty (Allison, Dwyer & Markin, 1999; Cockburn & Clarke, 2002; Dwyer et al., 2006; Finch & White, 1998; Sas-Nowosielski & Krzysztof, 2006; Shen & McCaughy & Martin, 2008).

Social factors influence adolescent young women's physical activity on both a micro level through significant others such as parents and peers, and also on a macro social level, through the dominant discourses of gendering in society and physical activity. Family members, especially parents, play an important role in the development of children's health behaviors (Baumrind, 1993; Bugental & Goodnow, 1998), however the mechanisms of parental influence remain understudied and poorly understood (Prochaska, Rodgers, & Sallis, 2002). Peers have a significant influence on adolescent girls' participation in physical activity. Their influence (Allison & Adlaf, 1997; Culp, 1998) and lack of social support (Frankish, Milligan, & Reid., 1998; O'Dea, 2003) are barriers to physical activity.

On a much broader and deeper societal level, the social construction of gender and the important role sport and physical activity play in feminine and masculine identities need to be considered. Sports, especially those demonstrating the qualities of strength, power, speed, and combat, are still considered the central shapers of masculinity in Western society (Dunning,

1986; Bryson, 1987; Connell 1987; Messner & Sabo 1991, 1994; Hargreaves 1994; Nelson 1994; Maguire 1999). Choi (2000) observed that along with other factors, feminine socialisation contributes significantly to the decline in young women's participation in sport and physical activity. While gender explanations to sport and physical activity patterns are complex and difficult to quantify, these deeper and pervasive structural and identity shapers need to be considered in any framework for understanding sport and physical activity behaviour, maintenance, and improvement.

Environmental factors include the physical environment, policies, and structural issues that might influence participation in sport and physical activity. It is increasingly recognised that the physical environment has the potential to influence the sport and physical activity levels of large segments of the population (King et al., 1995). The nature of the relationship between sport and physical activity and the environment, however, is still not well established (Trost, Owen, Bauman, Sallis, & Brown, 2002). Recent reviews of the literature found fairly consistent positive associations between sport and physical activity and factors in the built environment such as access to facilities, safety, and aesthetics (Humpel, Owen, & Leslie, 2002; Saelens, Sallis, & Frank, 2003; McCormack et al., 2004). What is needed is a deeper understanding of how the school and community environments interact with individual and social factors. This will provide a richer understanding of the association between the environment and participation in sport and physical activity for young women.

The present study

The purpose of this study was to examine individual, social, and environmental factors and how they interact to influence participation in sport and physical activity for adolescent young women at two transitional life stages. These transitional life stages were from primary to first year of secondary school and from middle high school to senior high school. We were conscious that the determinants of sport and physical activity for adolescents are often specific to the adolescent stage of development (Coakley & White, 1992; Culp, 1998; Sleep & Wormald, 2001) and we therefore focused on specific age groups (i.e., 12–13 years and 15–16 years). We also conducted interviews with teachers to provide a thorough examination of the issues and to triangulate and validate our findings.

To date, much of the research on participation in sport and physical activity for adolescents has adopted a quantitative approach (Allender, 2006; Humbert, 2008). A qualitative approach was used in this research as it enables an appraisal of the interaction of factors in the social ecological model

and an in-depth analysis of the complexities of sport and physical activity behaviour, and it can facilitate the discovery of alternative explanations of this behaviour (Miles & Huberman, 1984; Marshall & Rossman, 1995).

Methods

Participants and procedure

A cross-section of schools within metropolitan Melbourne, Australia, were selected to ensure (1) they included schools from the three sectors — independent, Catholic, and government; (2) they were located in a range of socio-economic status areas, by using postcodes to assign Socio-Economic Indexes for Area (SEIFA) values (ABS, 2006); and (3) the schools were spatially distributed around the Victorian metropolitan Local Government Areas

After gaining approval from the human research ethics committees at Victoria University, the Department of Education and Training and the Catholic Education Office, school principals from these selected schools were contacted initially by phone and information packs were sent by post or electronically through email. Information sheets for teachers, students and parents/guardians were mailed to the physical education coordinator or year level coordinator. This person determined the most appropriate teacher to be interviewed (generally the head of the physical education department), distributed the forms to all female students in Years 7 and 11, and asked students to inform and gain consent from their parents to be involved in the study. Year 7 is the first year of secondary school and Year 11 is senior high school in Victoria.

Once consent forms were returned, phone calls and/or emails were used to find mutually convenient times to run the focus groups and teacher interviews. Focus groups and interviews with teachers were conducted on the same day, on campus, and during school hours. Ten schools participated in the study, including six government schools, three independent schools, and one Catholic school.

Ten interviews were conducted with physical education teachers. All interviews were one-on-one, except for one school where two teachers were interviewed together. Interviews went for 20 to 40 minutes (average length was 25 minutes). Ten focus groups were conducted, six with Year 7 students and four with Year 11 students. There were five to eight students in each of the focus group discussions, which ranged from 35 to 60 minutes (average length was 50 minutes). Following the focus groups and interviews, teachers and students were debriefed about their experience, thanked for their involvement, and told that a summary of the research findings would be sent to them.

The interviewer was a female in her late 20s who had postgraduate qualifications in sport and physical activity behaviour and determinants as well as experience in facilitating focus groups and interviews. Soon after each interview, notes were made on the main themes from the focus group or interview. The other two study investigators listened to the audiotapes of the interviews and made notes. The interviews and focus groups were transcribed verbatim and de-identified. A random selection of transcripts were compared to their audiotapes for quality control. All transcripts were imported into NVivo, version 7.

Data analysis

Data analysis was an ongoing process that began with the first interviews. Coding was used to reduce the data into meaningful themes and categories (Neuman, 1997) and in this analysis, codes were attached to ideas. The transcripts were not artificially broken up, rather a code could be assigned to a couple of words or a whole paragraph if it referred to a particular idea. Code notes, theory notes, and operational notes were kept throughout the data collection, analysis, and write-up (Strauss & Corbin, 1990). The interviewer and two study authors independently read the transcripts and inductively generated a list of themes with descriptive comments. Codes emerged from the data (Strauss & Corbin, 1990) and there was no attempt at the coding stage to force codes into being 'individual', 'social', or 'environmental/policy'. Due to the interrelationships that exist across many of the influencing factors, some of the themes were not easily categorised as individual, social, or environmental/policy. This adds to the richness of the data and allowed us to see how these three levels interact and influence sport and physical activity.

Two methods of triangulation were used to enhance the credibility of the findings. Analyst triangulation was used in the data analysis, with multiple people coding the data and regular discussions of the main themes that were emerging from the data, which limited personal bias. Also, having teachers and students address questions about factors that influence the sport and physical activity of the group provided triangulation of the content. Codes were attached to attributes including year level (7 and 11) and focus group or interview (i.e., students or teacher) to facilitate comparisons within and between the themes.

Instruments

Students completed a short questionnaire before the focus groups commenced. The questionnaire included open-ended questions on age, suburb they lived in, country of birth, language spoken at home, and parent/guardian occupation.

Focus groups and interviews were semi-structured and were supported by a guide to topics, but the interviewer had flexibility in the order in which they were covered to allow the discussion to flow, provided all the topics were covered by the end of the interview. Focus group questions centered on the young women's perceptions and experiences with sport and physical activity, barriers to participation, and how these barriers could be overcome. Prompts focused on leisure, sport, and physical activity. Examples of prompts include: 'What sort of physical activity do you participate in inside or outside of school?'; 'What has influenced your attitude towards physical activity?'; and 'How has your participation in physical activity changed in the past couple of years?'

Interviews with teachers focused on opportunities for young women to participate in sport and physical activity inside and outside of the school, factors that facilitate and constrain participation in sport and physical activity, and problems and frustrations with encouraging young women to be physically active. Examples of prompts include: 'What opportunities are available for young women to participate in sport inside and outside of the school?' and 'Can you give examples of facilities, programs, and services that are available for sport and physical activity?' 'At School?' 'In the local community?'

Results

Student characteristics

The Year 7 focus groups included 35 students in total. The average age of students was 12.7 years (range 12–13 years, S.D. = .471, $n = 35$). All participants were born in Australia and spoke English at home. Year 11 focus groups consisted of 27 participants. The average age of participants was 16.6 years (range 16–18 years, SD = .565, $n = 27$). Most participants were born in Australia (77.8%), other countries of birth included Switzerland, Taiwan, Germany (all $n = 1$), and Brazil ($n = 3$).

Changing motivations and nature of sport and physical activity participation

There were some differences in the motivations for sport and physical activity between the two student groups. Motivations changed focus from sport and physical activity being for fun to sport and physical activity being for weight loss/maintenance. These changes coincided with changes in the nature and experience of sport and physical activity, which included: a reduction in the range of physical activities; a decrease in emphasis on competitive types of sport and physical activity and an increased emphasis on informal fitness

or socially focused types of sport and physical activity; and less spontaneous sport and physical activity and more planned types of sport and physical activity.

The Year 11 students focused on physical activity as a way of avoiding putting on too much weight, managing anger, and finding relief from schoolwork. Comments included (when asked the benefits of physical activity): *'well not putting on too much weight'* and *'stress reliever'* (both Year 11 students). Conversely, Year 7 students often mentioned they participated in sport and physical activity *'just for fun'* or *'because I want to'*, as well as for general health benefits. For example, *'It [physical activity] makes you feel healthy. It gives you something to do'* (Year 7 student), and *'I love running in my spare time. I run for no reason'* (Year 7 student).

The shift in motivation and perceived benefits from sport and physical activity coincided with a change in the nature and experience of sport and physical activity. The Year 7 groups mentioned participation in a greater variety of physical activities, including more participation in informal lunchtime activities and in spontaneous and 'play' types of activities: *'I like to do basketball at lunchtimes and stuff and sometimes play tiggy, I mean um I used to hang out on the oblong and play British bulldog'* (Year 7 student).

Year 11 students tended to focus on participation in more fitness-oriented activities, with activities such as the gym mentioned more often than in the Year 7 group. For the Year 11 group, sport and physical activity tended to be much more structured and at a set time, for example *'I walk to and from school which is about 3 km there and back'* (Year 11 student) and *'I go to the gym once a week'* (Year 11 student). These comments reflected a change in sport and physical activity from being somewhat spontaneous and intrinsically motivated to being a planned activity that was largely extrinsically motivated.

Although the Year 7 students participated in some lunchtime physical activity, many noted that their level of lunchtime sport and physical activity had reduced. Whereas lunchtimes in primary school were filled with sport and physical activity, this was not the case in secondary school:

Participant 1: *In high school you don't really do that much active stuff*

Participant 2: *Like we played gang-up like every lunchtime*

Participant 1: *Yeah like all the Year 6s*

Interviewer: *So what tends to happen sort of when you move into Year 7, what happens with your lunchtimes now then?*

Participant 1: *You just sit down*

Participant 2: *Sit down*

(Year 7 students)

The reductions in lunchtime physical activity may be partly related to the 'ownership' of physical activity spaces by boys (discussed further in the 'Influence of others' section). It was noted that primary school had more 'play equipment' and play spaces than secondary school: 'You had things like playgrounds and those sort of things and you had more equipment' (Year 7 student). Thus, access to facilities had an influence on lunchtime participation for some students.

Year 11 students reported that sport and physical activity had become more competitive than when they were younger and this resulted in a reduction in enjoyment for some students as it became 'too serious'. At the same time, some of the students were less interested in competitive sport and more interested in spending time with friends and also more informal fitness-oriented activities. One student commented, 'For me it was just getting too serious, like it wasn't fun anymore' (Year 11 student) and 'I was just kind of like keep mucking around with my friends and still playing but not at a serious level anymore' (Year 11 student). Some of the students who disliked the competitive aspect of sport said that they had become involved in individual and non-competitive forms of physical activity, such as walking and going to the gym. Competition was not so unfavourable for some Year 7 students, who reported participating in, and enjoying a greater range of, physical activities. One student said, 'I just like competing against people' (Year 7 student).

It was not clear if sport and physical activity had, in fact, become more competitive as the students had got older, or if they had just perceived sport and physical activity as being more competitive because they enjoyed competition less. Teachers appeared to be aware of this shift. For instance, the preference of some students for non-competitive types of physical activity was noted by one teacher, who reported attempting to expose students to a broader range of physical activities. Another teacher commented that 'most students are not engaged in after-school activities, they're not in organised sport, they are doing more recreational activities themselves like the skateboarding etc. and that's what we need to, we need to tap in to'.

Competing priorities

Competing priorities was a dominant theme that influenced participation in sport and physical activity for Year 7 and Year 11 students and this compromised their participation. However, the types of competing priorities varied across the two groups.

The Year 7 group reported that their interests had changed since primary school and although they used to do multiple sports, they were now forced to choose between sports due to lack of time and wanting some time to relax on weekends, or 'chill out time'. They had become more interested in 'boys

and stuff like that' and also said that schoolwork was taking more of their time than it did in primary school.

Most of the students in Year 11 worked part-time and, combined with increases in schoolwork and the range of leisure opportunities that were available, physical activity and sport were hard to 'fit in': *'by the time I get home [from part-time job] at about quarter to eleven I can't really be bothered doing anything'*. Participants who were taking physical education as a school subject reported *'trading-off'* physical education time to work on other school projects. Participating in after-school classes competed directly with the pursuit of sport and physical activity outside of school. The students reported a lack of time for general leisure and relaxation time, let alone sport and physical activity. One student commented, *'On weekends isn't it like time for relaxation?'* (Year 7 student).

Students reported participation in a broad range of leisure activities, such as watching TV, going to the movies, shopping, and hanging out with friends: *'I like hanging out with mates just chilling, actually partying'* (Year 11 student). The range of leisure opportunities available to young people in a metropolitan environment means that they have a degree of freedom of choice in terms of how they use their time. Students reported that they were allowed to do more activities individually, without the supervision of parents as they got older. One student said, *'I feel like my mum . . . she lets me do more things than I used to like . . . I wasn't allowed to regularly go to Southland [a shopping centre] and all that but now I'm allowed to grab the bus up'* (Year 7 student). Thus, as young people get older, the range of leisure activities that they can access becomes larger (as parents allow them greater autonomy). This resulted in a broader range of leisure experiences and thus less time for sport and physical activity.

Although competing priorities may be considered as individual decision making on the part of the adolescent, it is far more complex than this. Competing priorities for the individual are influenced by the broader social and environmental/policy context. Participants in Year 7 experienced a reduction in opportunities that were available for them through school, while the Year 11 students reported that they had been told by their parents to drop participation in some sport and physical activity: *'I was pretty much forced to give up, like I had to choose one thing that I was going to stick to and drop the other one'* (Year 11 student) and *'parents are going to force you to stop something to get good VCE [Victoria Certificate of Education] marks'* (Year 11 student).

Students reported that timetable clashes made it difficult to select physical education subjects and teachers also reported that timetabling created a barrier for young women to participate in sport and physical education at school. Formal and informal school policies regarding timetabling of physical

education classes and the opportunities for students to be physically active at school are also an issue that relates to the prioritisation of sport and physical activity in the broader policy context. Students in Year 11 reported a lack of coordination between subjects that made it more difficult to choose physical education as a subject. For example, sport/music/drama were often on at the same time: *'the school offers music and drama. They don't co-ordinate well the different activities'* (Year 11 student). Some students had a choice to do sport and physical activity during physical education classes or to use this time to catch up on other school work, and participants reported that they were sometimes *'forced'* to use time for homework due to workload.

Physical education teachers also spoke about students requesting to use their physical education time for other, 'academic', work; one teacher commented, *'We're so overloaded with all the things we have to do and especially the Year 12s, they have their project — their year project and it happens many times that people have come to me and asked "may I use this 40 minutes for something else?"'*

It was noted by teachers that the timetabling of physical education is determined by teachers in leadership roles. Those teachers who valued physical activity and sport tended to give more consideration to appropriate timetabling of physical education and sport than those who did not value it as highly. One teacher commented, *'Sometimes the leadership team are not interested . . . we've got one on the leadership team who is interested, the others probably have never ever had any good experiences with PE [Physical Education] or sport themselves'*. Budget restrictions also impacted on the schools' ability to provide opportunities for sport and physical activity, as one teacher commented: *'Restrictions in encouraging physical activity equals funding restrictions, a small budget for PE'*.

Furthermore, physical education is not compulsory after Year 10, which further highlights its lack of priority in the education system:

You know it's frustrating and I said 'How are we going to get it up for next year?' and he said 'Well he can't do it until the last week of school' because he has to wait and see what teachers the schools employed, who is going to teach in the VCE subjects. And that's where it starts at VCE and that's the biggest priority and then sports is down the list. (teacher)

In an environment where there are many competing priorities on the school curriculum, budget constraints, and timetabling changes, the processes of timetabling for sport and physical activity are an important consideration. One issue that was raised by many teachers was the length of school periods, which were decreasing in length to allow for more classes:

. . . next year the school has chosen to go to 40-minute periods. The double periods are 70 each. All of them are all doubles. That's the way its currently structured but next year unfortunately it's not and it's going to kill us. I think in terms of external, going anywhere, doing anything

I only have one period for 40 minutes and we have this big wide open space here so therefore sometimes it can take quite a while if they have something here and then they have to come down there

The flow-on effect of such timetabling policies included a lack of time to change into PE uniforms, which then became a barrier to participation.

Influence of others

The influence of family members, friends, media, and role models was mentioned by focus group participants and teachers. Overall, the Year 7 students mentioned a greater range and also spoke at greater length about influences on their participation than the Year 11 students.

Family members both directly and indirectly influenced participation in sport and physical activity for these students. Siblings were an important influence for Year 7 students. They mentioned that they followed in their siblings' footsteps (both brothers and sisters were mentioned) with regard to the type of activities they chose to participate in. *'My brother played cricket for about three years and then he had so much fun I did it for a year or two years'* (Year 7 student). Thus siblings served a 'modelling' role for students.

The influence of parents was mostly in relation to their encouragement or discouragement of activity, rather than students modelling their parents' behaviour. Many students said that they were forced to reduce the range of physical activities that they participated in as they became older. Parents also positively influenced participation through encouragement and providing instrumental support to accessing opportunities: *' . . . they can inspire you. My mum got me into little aths and I sort of keep that up. And my dad used to take me out to play basketball and he taught me football; I learnt that when I was in primary school and also your siblings as well'* (Year 11 student).

Teachers also commented that parental support is vital: *'if you don't get the parents, you won't get the kids'*. Some parents did not encourage young women to be active because it is not academic and instead the parents tended to pressure their daughters to do well academically as they progressed through their schooling: *'I think it's more towards the later years, Year 11 and Year 12, that they find it hard because their parents are like "I want you to study", "I want you to do this", "you are not allowed to play sport"'* (teacher). The age of parents

may also have an impact on their encouragement of participation, particularly in non-traditional forms of sport and physical activity. One teacher had observed that younger parents seemed more willing to allow their children to try a wide variety of physical activities.

Socialising and '*hanging out*' with friends was the most frequently mentioned leisure activity for both groups of students and this is reflected in the influence that friends had on the students. Getting involved in a particular activity was often a result of friends being involved and, conversely, dropping out of activities was related to friends stopping involvement. Students commented: '*My friend Jane, she kind of got me into long distance running*' (Year 7 student), and '*My close friends we like just sitting on our butts*' (Year 11 student). Furthermore, the social aspect of participation was a benefit and a source of enjoyment for the students.

Friendship groups were linked to, and reflected the self-identity of, the students. Some saw themselves as '*sporty types*' and others did not. When asked why they thought some other young women do not like to participate in sport or physical activity, comments included: '*Because some chicks are too girlie. They think, "Oh my God I'm going to break a nail" and stuff*' (Year 7 student). Femininity, or being '*girlie*', seemed to be the opposite of being '*sporty*', which shared more similarities with the masculine.

Although not raised directly by students in the focus groups, teachers discussed the issue of the interactions between male and female students and how this changed from Year 7 onwards. While in Year 7, boys were inclusive of young women in their sport and physical activity, this changed in later years: '*we do get a lot of male/female interaction in playing sport*'. By Year 8 the boys were becoming more competitive and aggressive and less inclusive. This period coincides with the time when young women are becoming more self-conscious about their appearance, particularly in front of boys. It also coincides with the period when young women become more interested in socialising and in less competitive forms of physical activity.

Teachers also had an influence on sport and physical activity participation. The Year 7 group felt that teachers could either make sport and physical activity enjoyable or not and the Year 11 group mentioned that teachers shape physical education experiences. The Year 11 group expressed frustration when teachers have '*male*' sports because there were only a small number of young women in the class. Teachers in the interviews mentioned that they found it difficult to program for the entire group of students because their needs and preferences differed widely. Teachers recognised that students needed to feel comfortable and enjoy the activities and noted the importance of building relationship with students.

School facilities, programs and policy

Students tended to focus on the school environment in their discussions of sport and physical activity. This may be due to the location of the focus groups being conducted in school premises. Students mentioned that where they live influenced their ability to participate in some types of sport and physical activity, that is, they tended to participate in activities that were close to home. However, a more dominant influence seemed to be the school environment and access to facilities and programs within and close to school. One student said, *'I think it's primary school and where you live and what sports are nearby and stuff. Like most of the time I started playing sport in a school team or something that was nearby'* (Year 11 student). Opportunities at school were an important component of sport and physical activity participation.

Teachers reported that schools attempted to expose students to a range of sports and physical activities and to do this they used both the school facilities and nearby facilities such as pools, YMCAs, parks, fitness centres, beaches, and bowls clubs. While some school sporting and physical activities were located at the school, many required that students travel to other locations for activities. Some of the facilities were within walking distance, while others required a bus or tram ride to access. Teachers comments included, *'We use the YMCA which is across the road for Pilates and yoga and stuff like that'*. Teachers mentioned that facilities/programs had to be located within 15 to 20 minutes (bus or tram ride) and not be too costly in order for the school to access the facility: *'the idea is to do as many things as possible and whatever is within a 15-minute tram ride and doesn't cost too much we'll go to'*.

There were a range of physical activities that students participated in at school. Most schools had *'formal'* types of competitive sports such as inter-school and house sport competitions and some also had more informal opportunities such as sporting competitions at lunchtime and then there were informal and non-competitive lunchtime activities such as power walking. The informal lunchtime activities relied on the initiative of teachers and if no teacher was prepared to organise this, they did not run. A teacher commented:

Young women haven't had it [lunchtime activities] this year cos it hasn't run, but in the past on Mondays, Wednesdays, and Fridays we've had power walks and fun runs outside of school where you have to bring your runners and you just go and join a group and do it with a group of teachers

The Year 7 coordinator and I, we've been running what we call 'lunchtime fun time', so that's one day a week and we just we go out sometimes we just take ball out and ropes and stuff.

These activities were initiated by teachers who observed that female students tend not to be physically active at lunchtimes. Because such activities rely on the initiative of individual teachers, they are subject to change and cannot always be provided: *'Lots of kids were interested in that, but this year I think by the time teachers have taught three 80-minute periods they get to lunchtime and go, "Oh I need a break"'* (teacher).

Although facilities such as bike sheds were provided at most schools to facilitate riding to school, few female students took up this opportunity. *'I don't think we have any females that ride to school on a bike and we've got two bike sheds and they are basically full of boys. So it's all about not being seen to be doing anything that would be unfeminine'* (teacher). Some of the young women reported walking to school, but very few rode to school. Although not mentioned by the students, it is likely that the 'ownership' of spaces such as bike sheds by male students was intimidating for female students and thus somewhat of a deterrent to riding to school.

Discussion

Changing motivations and the nature of sport and physical activity participation, competing priorities, the influence of others, and school facilities, programs, and policies were the dominant and interconnected themes that emerged from the focus groups and interviews. Each of these themes included individual, social, and/or environmental aspects.

Changing motivations and nature of sport and physical activity participation

The difference in the nature and experience of sport and physical activity for different age groups has implications for sport and physical activity participation. The Year 7 groups spoke of their involvement in spontaneous types of sport and physical activity, whereas for the Year 11 groups, physical activity was more planned and structured.

The increasing focus on sport and physical activity as a means of losing weight may act to reduce perceived freedom and increase perceptions of physical activity as being more work-like. A negative relationship between physical activity for weight loss and reduction in relative autonomy was found by Markland and Ingledew (2007). The more female adolescents wished to lose weight the lower their relative autonomy (Markland & Ingledew, 2007). A reduction in relative autonomy is related to reductions in enjoyment and, in turn, participation (Gillison et al., 2006). Emphasis on weight loss and the achievement of the slender body is an integral part of the feminine and sexualised imperative that features so strongly in adolescent young women's cul-

ture and becomes a dominant influence as young women mature (Choi 2000; Hargreaves, 1994). When participation in physical activity is primarily motivated by the desire to enhance physical appearance, young women reduce their opportunities to view their bodies in more functional and empowering ways (Choi & Murtie, 1997; Choi 2000).

The 'fun factor' of physical activity also becomes secondary when physical activity is viewed instrumentally as a way to lose weight. Despite the importance of enjoyment as a predictor of behaviour it continues to be under-researched in relation to its significance for physical activity uptake and adherence. Henderson, Glancy, and Little (1999) argued strongly that 'fun' is a term that is difficult to define and is often devalued in our work-oriented society. An emphasis on physical activity as a fun activity rather than a means to an end is likely to lead to a reorientation in the motivations for young women to participate.

The decrease in enjoyment of competitive types of activities was of interest. This was particularly the case with the Year 11 students. While the Year 7 groups liked to compete, the Year 11s preferred less competitive and more social types of physical activity. This could be due to a number of social influences. Even in a competitive team sport environment, young women highly value the social, supportive, and friendship aspects of their sport involvement, as well as their achievements (Trail, Clough, & McCormack, 1996). During later adolescence (15–18 years) the importance of body image and peer group influence and interaction intensifies and there is also an increased interest in relationships of a more sexual nature. Coakley and White (1992) found that young women with boyfriends often gave their sporting interests a lower priority in order to maintain their relationship. In this context a young man's interests and achievements in playing competitive sport, which was aligned with his masculine identity, was considered more important than his girlfriend's sport and leisure interests. Concerns with fashion, socialising, and maintaining the appropriately feminine and slender body appear to be prioritised in the leisure of many young women (Hargreaves 1994; Choi, 2000).

Competing priorities

Competing priorities were a key factor that influenced the participation of students in Year 7, and more strongly in Year 11. These competing priorities were a product of individual, social, and environmental/policy factors. On an individual level, students had an increasing repertoire of leisure opportunities from which to choose and also part-time work and schoolwork put increasing demands on time. The issue of part-time work emerged as an important consideration for the Year 11 students. There has been a steady increase in the

overall proportion of young women (aged 15–19 years) employed in part-time work in Australia. In 2003 a nationally representative survey of youth showed that around half of older secondary students were working, and almost all worked part-time in their main job (Abhayaratna, Andrews, Nuch, & Podbury, 2008). On a broader social level, some parents ‘forced’ students to reduce the number of physical activities that they participated in to allow time for academic work, which was seen as a higher priority. Finally, on an environment/policy level, school structures and timetabling reflect the diminishing priority of sport and physical activity within a busy school curriculum.

These findings are consistent with the observations of Coleman (1961), who suggested that the varying amounts of time spent in academic, social, or athletic pursuits are posited to be in competition. The sport commitment model (Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993) includes a similar concept to show that the more athletes were attracted by competing activities, the less they felt committed and persisted in sport (e.g., Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993; Guillet, Sarrazin, Carpenter, Trouilloud, & Cury, 2002). Boiche (2007) argued for the need to consider the self-determined motivation of potentially competing activities (such as school, work, and friendships) in order to enhance our understanding of adolescents’ choices and behaviours in the context of sport and physical activity. They found that intrinsic motivation for schoolwork and the emphasis placed on this by the school and parents were likely to decrease sport participation and there is a perceived conflict between sport and schoolwork (Boiche, 2007). Our research highlights that competing priorities must be considered multi-dimensional and reflective of broader societal influences and education policy.

Adolescence is a time of increasing opportunities to participate in autonomous leisure activities, as parents allow more freedom in terms of accessing leisure. At the same time as this expanding access to various leisure activities is occurring, obligated time for activities such as schoolwork and part-time work also increases. This created a paradox where there are more leisure opportunities but there is less discretionary time to experience them. Thus, in terms of leisure, the students had greater perceived freedom and autonomy, and thus higher levels of leisure self-determination (Deci & Ryan, 1985, 1991). Perceived choice and freedom is viewed as a positive aspect of leisure; however, this also means that sport and physical activity has to compete with a growing number of activities for an adolescent’s time.

Although sport and physical activity participation for children and adolescents has been given increasing focus, our findings indicated that sport and physical activity provision is not a high priority in many schools. Schools are increasingly under pressure to produce high academically achieving stu-

dents and schools are being ranked according to academic achievement. This puts pressure on the development of curriculum that is focused on academic achievement, and some parents and teachers oppose sport and physical activity taking the place of 'real' learning. This view is counterproductive, as recent evidence suggests that higher amounts of physical education may be associated with an academic benefit (Carlson et al., 2008).

Influence of others

Social cognitive theory (Bandura, 1986, 2004) posits that behaviour can be affected by vicarious learning and reinforcement, through the observation of role models. In this study, it was clear that friends, family, and teachers served as significant role models for sport and physical activity behaviour. In the literature, the relationships between family and sport and physical activity behaviour is often characterised as social support. Social support may be operationalised as three constructs: (1) instrumental and direct support (e.g., transport), (2) motivational support (e.g., encouragement), and (3) observational support (e.g., modelling) (Prochaska et al., 2002). Our findings indicate that the support provided by parents is largely through instrumental support and encouragement, whereas the support from siblings tends to be through modelling.

Teachers were also mentioned in terms of their being an influence on physical activity. The social support and encouragement that teachers are able to provide is clearly influenced by the school environment, through accessible facilities and programs as well as supportive policy and a curriculum that facilitates adequate programming of physical activity. The initiation of lunchtime physical activity programs by teachers facilitates the participation of female students. Such activities provide informal and noncompetitive physical activity which tends to be favoured by adolescent girls.

Studies suggest that having same-sex friends with whom to participate has a positive effect on young women's engagement and continued involvement in sport and physical activity. This may, in part, be due to the support structure such shared experiences can offer, especially during adolescence, when many young women consider reducing their commitment to physical activities. This is the time when they are most anxious about being rejected or excluded from same-sex friendships. For young women, physical activities often become less important in their lives as they are encouraged by pressure from their peer group to seek other activities associated with their preferred perceptions of femininity (Taylor, Legrand, & Newton, 1999). At the same time, sport and physical activity are recognised as a means to create or maintain friendly social relationships (Boiche, 2007).

The influence of boys on physical activity was not a major theme raised in the focus groups with young women. Teachers, however, did raise the issue of boys becoming more competitive and aggressive and less inclusive of girls in the early high school years (Year 8 onwards). Teachers also spoke about the boys' 'ownership' of sport and physical activity spaces such as bike sheds being a deterrent to young women riding to school. The work of James found that boys' more competitive nature was a deterrent to young women participating in basketball in their lunch hour (James, 1999) and also that embarrassment caused by the presence of boys reduced the frequency and quality of swimming for adolescent young women (James, 2000).

School facilities, programs, and policy

Our research suggests that when examining access to facilities and their impact on participation in sport and physical activity, two types of access should be studied: access to facilities from home and at school. Both types of access have an impact on the sport and physical activity opportunities available to adolescents. Although some research has examined the influence of facilities and programs that are accessible to adolescents in terms of where they live, there is less recognition of the importance of facilities and programs that are accessible to the school which they attend. Humbert et al. (2008) found three important environmental factors that impact on adolescents' sport and physical activity: programs, facilities, and accessibility (Humbert et al., 2008). Our findings add to this by suggesting that such factors need to be looked at in terms of facilities and programs available in areas surrounding where adolescents live and facilities and programs within the school, or that the school has access to. Further research is needed to establish if access to facilities and programs at school has an influence on the amount of sport and physical activity that students participate in and/or the type of activity in which students participate both inside and outside of school hours.

Schools are a key environment where young people observe, imitate, learn, and practise health behaviours such as physical activity. This environment and the policies that guide school curriculum have the capacity to positively influence participation in sport and physical activity for young women (Elder et al., 2007). School provides opportunities to be active through formal means, such as sports competitions and physical education classes and also through more informal means, such as facilitating lunchtime activities. Research has suggested that when the school environment has high levels of both physical improvements and adult supervision, the percentage of young women who are physically active during lunch periods is up to four times higher than when the school environment was deficient in both (Sallis et al., 2001).

The reduction in opportunities for sport and physical activity through school was a key driver of the overall reduction in sport and physical activity for both groups. The Year 7 students reported that there were fewer opportunities for them to participate at school. Parents of the Year 11 group had told them that they had to cut down on participation in physical activity to focus on schoolwork.

Levels of physical activity during lunch hours declined sharply from primary to secondary school and few students reported being physically active during lunchtime. Previous research showed that only a very small percentage of children (grades 6–8) chose to be physically active during unstructured time (Sallis et al., 2001) and levels of physical activity decline sharply from primary to secondary school (Yates, 1999). Although some schools conducted activities in their lunch hours, this was up to the discretion of the teachers. The informal nature of these activities appealed to the young women in this study. The use of lunchtime as a means of delivering physical activity should be further explored in schools. Some students indicated a dislike of competitive types of physical activity and the demands on their time meant that activities outside of school were difficult to fit in. Thus, opportunities for physical activity during the school day are extremely important.

Limitations

This study has provided an understanding of the interplay of individual, social, and environmental factors and how they influence sport and physical activity for young women at transitional life stages. There are some limitations, however, that need to be considered when interpreting the findings of the research. The findings of this study are limited to the sample population and their environments and cannot be generalised to the broader student population. The second limitation of the study involved the selection of the study participants. The recruitment of students was conducted during school hours and relied on voluntary participation. As a result, students who were frequently absent may not have had an opportunity to be selected and those who volunteered are likely to be those with an interest in sport and physical activity. We found that most of the students in the focus groups were at least moderately physically active.

Conclusion

Our research examined the individual, social, and environmental factors that influence young women's participation in physical activity at transitional life stages. We found that reductions in physical activity for young women were related to changing sources of motivation from intrinsic to extrinsic; compet-

ing priorities from school, part-time work, and other leisure opportunities; a lack of priority for physical activity from parents and the school curriculum; gender stereotyping that restricted the range of physical activities that young women feel comfortable participating in; and a lack of accessible sport and physical activity facilities, programs, and services in schools. Each of these issues will need to be addressed if levels of physical activity are to be increased for adolescent females. These strategies are not 'quick fixes', but rather require a whole-of-community approach and, in some cases, a reorientation of societal values.

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