

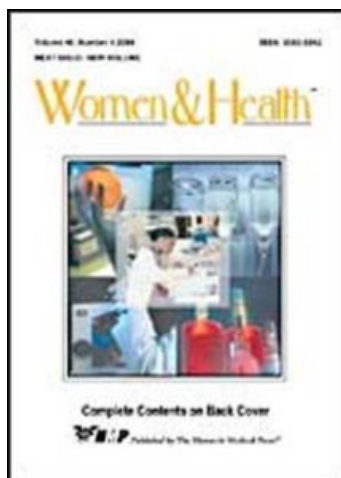
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Publisher Routledge

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## Women & Health

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title-content=t92306982>

### How Can Socio-Economic Differences in Physical Activity Among Women Be Explained? A Qualitative Study

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Online Publication Date: 14 July 2006

**To cite this Article** Ball, Kylie, Salmon, Jo, Giles-corti, Billie and Crawford, David(2006)'How Can Socio-Economic Differences in Physical Activity Among Women Be Explained? A Qualitative Study',*Women & Health*,43:1,93 — 113

**To link to this Article:** DOI: 10.1300/J013v43n01\_06

**URL:** [http://dx.doi.org/10.1300/J013v43n01\\_06](http://dx.doi.org/10.1300/J013v43n01_06)

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# How Can Socio-Economic Differences in Physical Activity Among Women Be Explained? A Qualitative Study

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**ABSTRACT.** This qualitative study investigated why women of low socio-economic status (SES) are less physically active than women of higher-SES. Semi-structured interviews were conducted with 19 high-, 19 mid- and 18 low-SES women. A social-ecological framework, taking into account intrapersonal, social and environmental level influences, was adopted to guide the development of interview questions and interpretation of data. Thematic analysis identified a number of key influences on physical activity that varied by SES. These included negative early life/family physical activity experiences (a consistent theme among those of low-/mid-SES); participation in a wider range of physical activities in leisure time (high-SES); greater priority given to television viewing (low-SES); lack of time due to work commitments (low-SES); lack of time due to family commitments (high-SES); and neighbourhood-level barriers (low-SES). Financial costs were not perceived as a key barrier by women in any SES group. Public health strategies aimed at reducing SES

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Kylie Ball, David Crawford and Billie Giles-Corti are each supported by a National Health and Medical Research Council/National Heart Foundation Career Development Fellowship. Jo Salmon is supported by a VicHealth Research Fellowship.

Women & Health, Vol. 43(1) 2006  
Available online at <http://www.haworthpress.com/web/WH>  
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doi:10.1300/J013v43n01\_06

inequalities in physical activity might focus on overcoming negative early experiences/attitudes to physical activity, reducing television viewing and promoting a wider variety of different types of physical activity, and addressing neighbourhood safety and other barriers to physically active lifestyles in socio-economically disadvantaged areas. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.Haworth Press.com> © 2006 by The Haworth Press, Inc. All rights reserved.]

**KEYWORDS.** Physical activity, socio-economic status, qualitative research, women

## INTRODUCTION

Lack of activity destroys the good condition of every human being, while movement and methodical physical exercise save it and preserve it.

Plato (427-347 BC)

Despite the well-established benefits to physical and mental health conferred by regular physical activity (US Department of Health & Human Services, 1996), large proportions of the population in developed countries have physically inactive lifestyles. Several groups are at particular risk of inactivity. Women have frequently been found to be less physically active in their leisure time than men (US Department of Health & Human Services, 1996; Trost et al., 2002), and those of low socio-economic status (SES) have repeatedly been shown to be less active in leisure time than those of high SES, regardless of the indicator of SES used (Crespo et al., 1999; Dowler, 2001; Droomers et al., 1998). Among men, these SES disparities are reportedly diminished once other domains of physical activity (occupational and domestic) are considered (Salmon et al., 2000). Among women, however, the inverse association between SES and physical activity remains, even after adjustment for occupational and domestic physical activity. Although a substantial body of literature demonstrates a socio-economic gradient in physical activity, the reasons for this remain largely unexplained.

Social-ecological models of health behaviour provide a useful theoretical framework for examining the influences on physical activity (Sallis & Owen, 1997; Stokols, 1996). These models posit that intrapersonal (e.g., motivation, self-efficacy), social (e.g., social support, social capital), and physical environmental factors (e.g., access to quality recreational

facilities) interact to promote or constrain individuals' participation in physical activity (Sallis & Owen, 1999; Trost et al., 2002; Humpel et al., 2002). However, little is known about the extent to which these determinants of physical activity vary across socio-economic groups, or whether such variation might explain socio-economic inequalities in physical activity participation.

Studies examining individual influences on physical activity have identified that lack of money, lack of transport, illness/disability, personality factors and coping styles contributed to explaining SES differences in physical activity (Chinn et al., 1999; Droomers et al., 1998, 2001). In terms of social influences, Lindstrom et al., (2001) reported that social participation in formal and informal groups explained some of the increased risk of physical inactivity among low SES men and women in Sweden. However, that study did not assess individual cognitions or the physical environment. Other studies have focused on environmental mediators of SES-physical activity relationships (Giles-Corti & Donovan, 2002; van Lenthe et al., 2005; Wilson et al., 2004). For example, van Lenthe et al. (2005) found that poor physical neighbourhood design, and greater required amounts of police attention in neighbourhoods, partly explained SES variations in physical activity among adults in the Netherlands. However, these studies did not include social or cognitive factors.

One of the few qualitative studies to have examined potential explanatory factors underlying SES gradients in physical activity found SES differences in a range of psychological, social and physical environmental influences that may have contributed to the lower levels of activity among those of low-SES (Burton et al., 2003). However, that study recruited only a small number of women, all from within the same organisations (workplaces for the high- and mid- and a welfare agency for the low-SES groups). Some of the factors that may explain SES gradients in physical activity may have been obscured because of the likely homogeneity of social and physical environmental influences resulting from the sampling strategy.

In summary, few studies have been truly ecological, concurrently examining multiple levels of influence on SES-physical activity gradients in women. The existing data, which are mainly quantitative, provide little insight into the physical activity contexts of adults from different SES backgrounds. The aim of the study was to investigate the types of physical activity engaged in, and the perceived intrapersonal, social and physical environmental influences on physical activity of women of different SES backgrounds, to provide insight into mechanisms underlying SES differences in women's physical activity.

## METHODS

A qualitative methodology, involving face-to-face interviews, was adopted, since the issue under investigation is currently poorly understood, and detailed contextual data were sought. The study was approved by the Deakin University Human Research Ethics Committee, and all participants provided informed written consent to take part.

For logistical reasons, the study was restricted to a geographical area within 25 km of the central business district of Melbourne, Australia. An area-based indicator of SES, the Socio-Economic Index for Areas (SEIFA) Index of Relative Disadvantage, was used to select sample suburbs. A suburb in Australia is a commonly used unit of geographic classification. The Australia Bureau of Statistics (1998), based on the 1996 Census data, has assigned a SEIFA score (a measure of the area's relative disadvantage based on measures of income, education, unemployment and occupation) to all suburbs. All suburbs within the study area were ranked according to SEIFA score, then categorised into tertiles corresponding to low-, mid- and high-SES. One suburb was randomly selected from each of the three tertiles to provide the sampling frame.

### *Research Participants: Recruitment and Sampling*

Fifty-six women aged 18-65 years were recruited (19 from the high-, 19 from the mid-, and 18 from the low-SES area). Women were recruited through letterbox drops, community advertisements, "snow-ball" techniques, and the electoral roll. The only eligibility criteria were neighbourhood of residence (as described above), ability to speak English, and age range (restricted to 18-65 years, as the socio-economic and other influences on physical activity of women outside of these ages are likely to be very different). All women who contacted researchers were eligible to participate and only one (who could not find a convenient time) did not go on to take part in the study. Socio-demographic characteristics of the sample are presented in Table 1.

### *Materials*

A semi-structured interview schedule was developed, based on the constructs of the social-ecological model. This included a written list of open-ended questions assessing, for example, typical pursuits undertaken in women's leisure time, the types of physical and sedentary activities in

TABLE 1. Socio-Demographic Characteristics of Participants

	Low-SES (n = 18)	Mid-SES (n = 19)	High-SES (n = 19)
Age			
18-30	7	4	7
31-40	8	5	3
41-50	3	3	8
51-60	0	4	1
61+	0	3	0
Education			
Some school/completed school	14	3	4
Tertiary (TAFE, university, post-graduate)	4	16	15
Occupation			
Manager or professional	3	9	3
Associate professional	2	0	0
Clerical, sales or service worker	7	4	4
No paid work	3	3	7
Student	3	3	5
Marital status			
Single	9	9	7
De facto/living together	1	2	1
Married	8	4	11
Separated/widowed/divorced	0	4	0
Household composition			
Live alone	2	9	0
Parents/family	4	0	5
Flatmates/friends	0	3	2
Partner and/or children	10	6	12
Share house/with children and other adults	2	1	0

which they engaged; attitudes and values related to physical activity, and barriers and facilitators to physical activity. While the interview questions touched on domestic, transport and occupational physical activity, the focus was primarily on leisure-time physical activity, since leisure

time is the domain over which individuals are likely to have greatest control. A list of probes was used to elicit more detailed responses. The schedule was pilot-tested for clarity with a small convenience sample of four women and revised slightly. A brief self-report questionnaire was developed to record participants' age, education level, occupation, marital status, and household composition.

### ***Procedure***

Women were individually interviewed at a convenient time and place by one of four trained female researchers. Interviews lasted 30-45 minutes. All interviews were audiotaped with the participants' permission and transcribed verbatim. Participants were presented with an AUD\$20 dollar gift voucher in appreciation of their time.

### ***Analysis and Interpretation***

Thematic analysis was conducted, guided by the constructs of the social-ecological model, to identify the main themes arising from the transcripts. Two researchers reviewed transcripts independently using the open-coding method of thematic analysis (Strauss & Corbin, 1990), in which a line-by-line analysis of the transcribed data was undertaken. The researchers coded each comment in all transcripts according to its thematic emphasis, grouping together comments with similar content into major thematic categories. Data were entered into NUD\*IST (QSR International Pty Ltd, 2002) to facilitate analysis of themes and extraction of quotes. Descriptive summary statistics were computed from socio-demographic questions.

Women's responses and the themes arising from responses were compared across the three SES categories according to suburb of residence (high-, mid- or low-SES). Examination of the socio-demographic details of the sample (see Table 1) showed that this area-based indicator overlapped substantially with individual-level indicators of SES such as education and so analyses of responses by individual SES were not considered necessary.

## ***RESULTS***

Eleven main themes were identified. These were: participation in different types of physical activity, physical activity history, lack of time,

planning/routines, lack of motivation, value of sedentary behaviours, social constraints/support, the work environment, local neighbourhood safety and aesthetics, local physical activity facilities, and financial costs of physical activity. The themes are described below.

### ***Participation in Different Types of Physical Activity***

In terms of current physical activity, women across all three SES groups most frequently mentioned walking as a form of activity in which they regularly engaged. Other forms of physical activity mentioned relatively frequently across all three SES groups included cycling, swimming, going to the gym, and yoga. The reports of women of high SES suggested that that participated in a wider variety of different physical activities than women of low and mid-SES. In particular, high-SES women were more likely than other women to mention participating in formal structured types of physical activity like team sports or personal training, and also more “unusual” forms of physical activity like boxing or kayaking.

My gym membership just finished, and I’m about to start rowing. But mainly I’m doing netball Monday nights, then we play lunch-time netball once a week, and I play tennis on Fridays. (23-year-old, high-SES)

In contrast, women of low and mid-SES were more likely to mention participating in transport-related or incidental activity, particularly walking or cycling to work or to the local shops. While some women described such incidental opportunities in a favourable light, in some cases, this was viewed as a necessity due to limited access to private transport.

I don’t have a car, so I walk, catch public transport or ride my bike to wherever I go. (50-year-old, mid-SES)

In terms of occupational and domestic physical activity, women in the low-SES group were more likely to mention being active at work than women of either mid-SES (no mentions) or high-SES (only mentioned by two women, one of whom was a flight attendant and the other a gymnastics coach). However, the notion that women of low-SES obtain enough physical activity in their jobs was not strongly supported. In only one case did a woman of low-SES explicitly mention that the



physical activity she obtained during her work day negated the need for leisure-time physical activity.

I work with a disabled girl . . . and some days there can be a lot of lifting, and some days I come home and think ‘that’s my exercise for the day.’ That’s where I’ll come home and relax a bit more. (20-year-old, low-SES)

In fact, one woman of low-SES openly disagreed with that sentiment.

I could have a really busy afternoon at work and think ‘I’m so exhausted’ . . . I think if you start using that as an excuse ‘that’s my exercise for the day’ then you’re grasping at straws. (32-year-old, low-SES)

Walking the dog was frequently mentioned as a form of physical activity among women across all SES groups. Although women in all three groups often mentioned doing housework as part of the daily routine, few of them considered this as “exercise.”

I do gardening and housework, and those sorts of things, but I wouldn’t really class them as exercise. (38-year-old, low-SES)

### ***Physical Activity History***

More women of high-SES mentioned that their parents were more active in their leisure time than either mid- or low-SES women.

My mum used to play netball and badminton . . . now she just goes to the gym . . . and dad has always run, when I was younger he used to do half marathons and things like that. Now he does little jogs four times a week so they’re both quite fit so I’ve been influenced by that. (19-year-old, high-SES)

Women of low- and mid-SES more often described having negative experiences with physical activity as children. For example, they did not enjoy school sport or other forms of activity; or they were discouraged from doing so. This was not the case among women of high-SES.

I wanted to be more active as a child but my parents didn't encourage it. I used to do callisthenics literally up the road, but my dad would grumble about having to pick me up. (36-year-old, low-SES)

I hated sport at school, the sports teachers. I always felt that there were secret lessons that the other people have gone to, to teach them the rules or how to play each game. I never felt that I had the skills, knowledge or understanding to play the sport properly . . . I have been totally turned off sport because of that. (51-year-old, mid-SES)

When asked about their physical activity during childhood, the same SES patterns reported for current participation in different domains of activity were apparent. That is, women of low-SES more often reported transport-related activity, whereas those of high-SES talked more about leisure-time sporting activity. Women of low-SES more often discussed transport-related walking as one of the main contributors to their physical activity in childhood. Again this was not always described in a positive way as it often arose from necessity:

We walked to school. Everywhere we had to go we had to walk so there was no choice. (42-year-old, low-SES)

Women of higher-SES, on the other hand, more often talked about more enjoyable involvement in organised or formal physical activities such as team sports.

[As] a child and adolescent [I] always played in a team so tennis was a team, swimming was always a team, sports such as basketball, netball, they were all team sports. (50-year-old, high-SES)

### ***Lack of Time as a Barrier to Physical Activity***

Lack of time was a commonly mentioned barrier to being active that was noted by women of all three SES groups. However, the perceived causes of lack of time, and other beliefs associated with lack of time varied slightly across the SES groups. For example, women of low-SES tended to attribute a lack of time to work commitments. Several women of low-SES who noted time as a barrier alluded to the fact that it was also tied to the priorities they held (e.g., relaxing, "unwinding") when they did have free time from work.

Lack of time . . . by the time I have classes maybe at 7 or 7:30 in the evening, I'm just tired. I've just been working, or running around with the kids, and then if I help them with their homework and stuff, it might not be 8, 8:30 until I can just sit down at night and then it's my time, then I could think about nothing worse than going to the gym at that time. (38-year-old, low-SES)

Other quotes, particularly from women of low- and mid-SES, seemed to reinforce that a perceived lack of time was often associated with feeling too tired or lacking energy to be active in the time that was available. This was particularly the case among women working in jobs with long hours or stressful conditions.

The hours I work—I'm gone by 6:45 a.m. and . . . home at 6 p.m. so that's nearly 12 hours away from home. And sometimes I get home and I just am stuffed and I don't want to go on the exercise bike and that's all related to the fact that you've had a busy day at work. (32-year-old, low-SES)

Related to a lack of time was a lack of flexibility of working hours, which was more commonly mentioned as a problem by women of low- and mid-SES.

There isn't enough time outside of work hours to fit everything else in . . . one of the things I'm pushing for at the moment is trying to make it so I can start an hour later so I can get a swim in the morning before I start work, and finish a bit later. That doesn't always suit the job, and the job comes first. Employers aren't going to support exercise or health over the work being done. (37-year-old, mid-SES)

In general, compared with women of low-SES, women of high-SES tended to attribute lack of time more often to family commitments. The close ties between perceived time constraints, and priorities/values, were acknowledged by one woman of high SES, whose response to the question "what are the most important things that make it hard for you to be more active?" is included below:

Time constraints I think. Part of that is my choice . . . I don't want [exercise] to encroach on my care of [my children]. So that's time combined with personal values, I suppose. (32-year-old, high-SES)

However, women of high-SES were also more likely to report believing that time constraints could be overcome, with good time management and prioritising:

I don't manage my time really as well as I can sometimes. But if I loved sport I could make time for it. If I really loved to walk I'd make sure I did. (53-year-old, high-SES)

### *Planning/Routines for Physical Activity*

While they might occasionally engage in spontaneous activity, women of high SES tended to mention more often that they had set times or routines for physical activity. They also spoke more often about planning ahead to ensure physical activity fits into their day.

We have a routine that is fairly set . . . my walks on Tuesday and Thursday mornings with my friend are set as well, and we also meet on Sunday mornings, so three times a week. (45-year-old, high-SES)

Mondays I know I play netball of an evening so I think ahead that I don't have to do anything today. And maybe I might have an aerobics class that I really want to go to so I'll fit everything else around that so I can go to that. (23-year-old, high-SES)

As opposed to:

I generally tend to do things as they come. I plan to do things, but then other things get in the way . . . I would love to play sport but I just don't have the time. I can't make a commitment in a week. . . for me exercise is what I do each day rather than more organised things. (37-year-old, mid-SES)

Even when they felt their life was hectic, several women of high-SES invested considerable thought into planning how physical activity could be fit into their day.

On a Saturday I'll say to myself mentally what time I'm going to go and what I'm going to do and I'll organise that in the morning . . . so that I know that if I've got all these other things on I know I can still fit it in. (50-year-old, high-SES)

The day before I think when I'm going to go to the gym the next day. The start of the week I'll probably work out what would fit in with my timetable or on the weekend making time to go for a walk. (23-year-old, high-SES)

### ***Lack of Motivation as a Barrier to Physical Activity***

Women from all three SES groups, but particularly those of low-SES, cited a lack of motivation as a factor that sometimes prevented them from being active.

I would have liked to have made some sort of routine to do something like go for a walk or go swimming every day, but I don't do that because I don't have the time or the motivation. (22-year-old, low-SES)

I do have time a little bit. But in that time I'm just not motivated. I just want to slump. (18-year-old, low-SES)

### ***The Value of Sedentary Behaviours***

SES differences appeared in the value afforded to certain leisure-time sedentary behaviours. Women of all SES groups reported television/video viewing, but this appeared particularly popular as a pastime among women of low-SES and, to a lesser extent, mid-SES. A number of women of low-SES described not only their preference for TV viewing but also the specific programs they enjoyed.

When I finish work . . . I watch TV, cos there's Neighbours and Big Brother [TV programs]. (22-year-old, low-SES)

I've never been a great one to sit down and watch TV. (46-year-old, high-SES)

### ***Social Constraints and Supports***

In addition to the time constraints associated with family commitments, women discussed other social and family-related factors that impacted on their physical activity. Some women of mid- and particularly high-SES expressed a belief that putting their exercise needs ahead of family commitments was "selfish" and made them feel guilty:

I feel guilty putting the children into childcare if I'm not working, so that's been a bit of a stumbling block. I could exercise if I put them into childcare, but I've done that before, and I found it really difficult. . . . I don't want to put them in childcare just because I'm exercising. (41-year-old, high-SES)

Lacking an exercise companion was not frequently mentioned as a barrier to being active. Several women appreciated the opportunity for solitary time whilst engaging in physical activity. Exercising alone was mentioned by women of all SES, whereas participation in team sports more popular among women of high-SES:

I play netball . . . I kind of wish I did have something else, like volleyball or some other team sport because I miss all of that from school. (23-year-old, high-SES)

I don't want to play in a team, to have to turn up every Wednesday night and do something, I never have . . . I'm not a team person. (54-year-old, mid-SES)

### ***The Work Environment***

Among women who worked, some had access to physical activity facilities at work, but for various reasons, these tended to be difficult to use for women of all SES groups.

The facilities are there, and some people use it, but I don't because I do a lot of correction and preparation . . . there is actually a weights room that some teachers do use at odd times, but . . . in a way, if you try to do your job properly, you don't have time. So the people who would do that are the slacker ones. (54-year-old, mid-SES)

Aspects of the psychosocial environment at work also sometimes hindered women's ability or motivation to be physically active. Women of low- and mid-SES particularly noted the negative effects of work-related stress, as well as feeling exhausted after work.

The conditions at work have got steadily worse . . . so to put it bluntly you're more buggered all the time . . . you spend long hours working in cramped conditions . . . staff priorities are very low in

terms of either physical . . . or mental health issues . . . the workload is too heavy . . . work stress, because it wears you out you don't have any energy left. (54-year-old, mid-SES)

I'm starting to really resent work and how much it imposes in my health and my lifestyle. And yet it's a nine-to-five job, and somehow it's consuming all my time. So I'm just tired, tired from work. (33-year-old, mid-SES)

### *Safety and Aesthetics in the Local Neighbourhood*

Women of low-SES tended to describe their local neighbourhoods in slightly more negative terms than women of mid- or high-SES. For example, one woman of low-SES described how she would like to improve her neighbourhood:

Where do I start? I'd get rid of a fair whack of the crime . . . there's a big drug culture in this suburb. I'd get better bike tracks . . . I'd make them not so obscure. I'd get much better lighting at night. Cars drive like maniacs so I'd get more speed humps . . . it puts me off as a cyclist. (36-year-old, low-SES)

Another woman of low-SES mentioned the poor aesthetic qualities of her local neighbourhood as a disincentive to being active.

Where I'm living now is a lot flatter than where I used to live, but it's just not that pretty an area either, so I'm not that motivated it's not that nice. (22-year-old, low-SES)

Safety issues were of particular concern to women of low-SES. These were not raised at all among women of high-SES. In fact, several high-SES women noted how safe their area was.

It is a very safe area so regardless of whether you're walking or jogging you can walk at night and in the morning because it is pretty safe. (19-year-old, high-SES)

I suppose it's a low economic area, and some of the people around here, even at the leisure centre . . . well I personally wouldn't want to go there in the evenings cos I just wouldn't feel safe getting there or getting home. (38-year-old, low-SES)

However, participants recognized that neighbourhood environments could not be completely blamed for a lack of physical activity. Even women of low-SES, who acknowledged safety issues in their neighbourhoods, stressed the possibility of seeking out suitable alternative physical activity options.

I think if you blame the neighbourhood for your lack of physical activity then you're just looking for an excuse to justify why you're not doing exercise. I wouldn't run in the streets after dark—don't think you should encourage trouble . . . and that's why I've got an exercise bike. (32-year-old, low-SES)

### ***Physical Activity Facilities in the Local Neighbourhood***

Women of high-SES spoke at length about the availability of good physical activity facilities in their neighbourhoods. However, a lack of facilities for physical activity was not often articulated as a barrier by women in any of the SES groups. When asked about barriers to physical activity generally, none of the women spontaneously mentioned a lack of facilities or poor facilities. When asked about the ease/difficulty of being physically active in the local neighbourhood specifically, only one woman of low-SES, one woman of mid-SES and two women of high-SES alluded to problems with physical activity facilities, and even these women acknowledged at least some good facilities were available:

It's quite good, but where we are is a bit badly positioned as far as gyms are concerned, we've got one that's close by but it's not very fantastic . . . it's a mum's gym . . . and the pool's only half size. X is really good, but the fees have gone up recently, and also it's a bit of a pain to drive to. (19-year-old, high-SES)

Generally, more commonly women acknowledged that good facilities were available, but that they didn't use them for various other reasons, such as a lack of motivation.

There is a pool close by, places for walks and bike rides, so it's very available for physical activity. It's more the ability to get myself there, getting myself motivated. (50-year-old, mid-SES)



There are opportunities because there's a leisure centre just not that far from here . . . there's all sorts of things, the stadium there, there's a park at X, there's quite a bit around here . . . For me to be more active it's more like just me getting off my own butt. (18-year-old, low-SES)

### *Cost*

Cost was not discussed as a major barrier to being physically active. Only two or three women of each SES group mentioned the cost of some activities—particularly gyms—as prohibitive, and most of those women conceded that this was not really a barrier. Most women recognized the opportunities for low-cost physical activities.

There are other limitations for money, but that just means I don't do those sorts of exercises, like skiing . . . but I don't really see that as stopping me from exercising, as walking and cycling—once you've got a bike—doesn't cost anything. (37-year-old, mid-SES)

## *DISCUSSION*

The mechanisms underlying SES differences in physical activity are currently poorly understood. The findings from this study—one of the first to apply a social-ecological model to understanding determinants of physical activity among women from different SES backgrounds—suggest that SES differences in women's physical activity may be mediated by multiple intrapersonal, social and physical environmental factors. These included negative early life physical activity experiences (a consistent theme among those of low-/mid-SES), participation in a wider range of leisure-time physical activities (high-SES), greater priority given to television viewing (low-SES), lack of time due to work commitments (low-SES), lack of time due to family commitments (high-SES), and neighbourhood barriers (low-SES).

One of the key themes to emerge from this study was that women of different SES reported different domains of physical activity participation. Women of high-SES more frequently described participating in structured/organised physical activity, while women of low-SES more frequently described engaging in transport-related physical activity. This corroborates results of previous research (Giles-Corti & Donovan, 2002). Also consistent with past research (Bostock, 2001) was the

finding that walking as a means of transport was at times a necessity, not a choice, for women of low-SES. In the present study, these SES differences in domains of physical activity participation seemed evident even in childhood, according to women's descriptions of their early experiences with physical activity. The long-term impact of early experiences was also reflected in the reports by a number of low- and mid-SES women of negative childhood experiences in sport and physical activity.

Given that exercise history may predict later participation among women (Britton et al., 2000), these negative experiences of low- and mid-SES women may contribute to SES gradients in physical activity participation in later life. Women of low-/mid-SES may enter adulthood with negative perceptions of physical activity. For some women, these may be confounded by the fact that their main source of activity is compulsory active transport, rather than sport or formal activities which may provide greater choice, social interaction and support that could overcome the negative past experiences. The hypothesised long-term influence of early physical activity experiences is consistent with a lifecourse perspective of socio-economic influences on health (Ben-Shlomo & Kuh, 2002). Addressing inequalities in health behaviours may require a consideration of the differential shaping of these behaviours across SES groups from early in life.

Common intrapersonal barriers to physical activity identified in this study included "lack of time" and "lack of motivation." Often these barriers appeared linked, with a number of women—particularly those of low-SES—reporting that in the little discretionary time available, they were not always highly motivated to be physically active. This may be exacerbated by the increased value that women of low-SES placed on sedentary behaviours, particularly television viewing, which may displace physical activity when time is limited. Reports from high-SES women further highlighted the frequent need for meticulous planning in order to fit physical activity into busy lifestyles. Lack of time is one of the most commonly reported barriers to physical activity (Sallis & Owen, 1999), but few studies have attempted to investigate the specific factors contributing to a perceived lack of time. In the present study, women of different SES attributed lack of time to different causes. High-SES women tended to cite family commitments as reasons for lack of time. Other studies have similarly found that parenthood is one of the key factors limiting women's abilities to be physically active (Ball et al., 2004; Verhoef et al., 1992). Low-SES women more consistently described work commitments as limiting on their ability to be active. However, this difference may be partly attributable to the fact that

seven of the 19 high-SES women in this study were engaged in full-time home duties and childcare rather than paid work.

Adverse influences of the work environment on women's physical activity were not always solely attributed to long working hours. Rather, women of low- and mid-SES also reported workplace stress, poor working conditions, inflexible working hours and exhausting work demands, as well as social norms whereby engaging in physical activity in worktime was frowned upon. These conditions may have contributed to the tendency of these women to choose sedentary activities or "relaxing" over more active recreational pursuits at the end of a working day. These findings complement increasing evidence that persons of low-SES may be at increased risk of exposure to adverse psychosocial characteristics of work environments, and these may contribute to poorer physical and mental health (e.g., Marmot, 1999).

Low-SES women commonly expressed negative views about their neighbourhood environment, in particular in relation to safety. This is consistent with previous findings (Gile-Corti & Donovan, 2002; Ross, 2000). For instance, residents of socio-economically disadvantaged areas in Perth, Australia were less likely than residents of other areas to perceive that their neighbourhood was attractive and supportive for walking and more likely to think it was busier with traffic (Giles-Corti & Donovan, 2002). Addressing the aesthetic and safety characteristics of disadvantaged neighbourhoods may be important in creating environments more conducive to walking and physical activity.

In the current study, perceived lack of facilities and cost were not major barriers to physical activity among women in any SES group. Previous studies examining objectively assessed availability of physical activity facilities in areas of varying socio-economic disadvantage have produced mixed results (Giles-Corti & Donovan, 2002; Macintyre et al., 1993; van Lenthe et al., 2005), suggesting that further investigation is warranted. Several women of low and mid-SES acknowledged that their local neighbourhood had good facilities, but that they lacked the motivation to access them. Similarly, a previous study showed that persons of low-SES had good access to physical activity facilities but were less likely to use them (Giles-Corti & Donovan, 2002). Future research is required to identify the relative contributions of such intrapersonal and environment influences on physical activity across SES groups. The present findings are promising, however, in that women across all SES groups recognized opportunities for participating in low-cost activities. However, these findings are in contrast to those of

the quantitative study of Chinn and colleagues (1999), and may require confirmation in a larger population-based study.

This is one of the first studies to use a social-ecological theoretical framework to understand better the multiple potential influences on physical activity among women of varying SES. For a qualitative investigation, the sample size in this study was relatively large. However, limitations include the possibility of socially desirable responding, although we believe this was minimal in this study, since many women gave detailed accounts of their physical activity that frequently did not match levels generally recommended for health benefits. The sample was recruited from within only three suburbs of the Melbourne metropolitan area, and so the generalizability of findings is unknown but may be limited, particularly given that neighbourhoods of similar SES may be very different. However, this qualitative study was intended to be hypothesis-generating, and further research to confirm the present findings in a large population-based sample is underway.

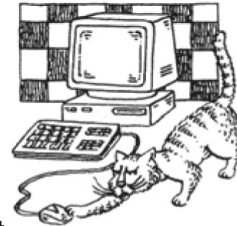
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