

# Perceived Benefits of Exercise Class Participation for Female HSC Students

Janet Lynne Currie, University of Technology, Sydney, NSW, Australia

*Abstract: Research demonstrates that unfortunately during the final period of schooling, 40-50% of Year 11-12 students experience clinical levels of psychological distress, and that this level increases as the HSC exam gets closer. Adolescent mental health experts also point to this period as being the highest risk time for the onset of many psychological problems and disorders such as depression, anxiety, psychosis, drug and alcohol dependence. The HSC exam itself forms a kind of climax with students experiencing increased workload, deadlines, expectations from parents, teachers/schools and themselves, beliefs about the future and perceptions of the 'life-long' significance of the HSC. Studies suggest that HSC students commonly experience poorer concentration, school achievement, negatively affected friendships, self-esteem and feelings of sickness. They often describe as though they are 'missing out' on age-appropriate activities and become overly sedentary. A group of 8 HSC students in Sydney, Australia, average age 18 years participated in a 10 week pilot program of community-based exercise classes. The exercise classes conducted once a week involved a warm-up, low-impact aerobic exercises, muscle conditioning, cool down and relaxation components, all held to a music background. The focus group data revealed that for the students, the main reasons for attending included to gain mental and physical fitness benefits. Students mentioned feeling more focused and able to study following the class. The findings suggest that taking part in exercise classes may offer a simple and effective strategy in assisting HSC students to cope more effectively with exam stress.*

Keywords: Exercise, Physical Education, Women, HSC/Leaving Certificate, Stress, Coping, Perceptions, Attitudes, Experiences, Aerobic Exercise, Mental Health

## Introduction

### Literature Review

AUSTRALIA'S NATIONAL PHYSICAL activity surveys between 1997 and 1999 reveal a decline of physical activity rates in recent years (Armstrong et al., 2000; ASC, 1998). Physical inactivity is now recognised as being second only to tobacco use as a key risk factor for ill health. Research also reveals that younger people, and women in particular, are gaining weight faster than previous generations and weight gain is accelerating as modern life influences our weight patterns. More people are entering adulthood weighing more. If these rises in body weight continue at the same rate, 61.4 per cent of 'Generation X' women born in New South Wales will be overweight in 2010 (NSWCOO, 2006).

However, substantial population health gains are possible if the community adopts more regular moderate physical activity. Physical activity need not be of vigorous intensity for it to improve health. Some of the benefits of moderate physical activity such as 30 minutes a day include halving the risk of coronary heart disease, halving the risk of colon cancer,

lowering the risk of diabetes, osteoporosis, lowering blood pressure, improving lipid profile and mental health (Center for Disease Prevention, 1996).

National Physical Activity Guidelines (ADHA, 1999) in Australia state that we need to regard movement and exercise as an 'opportunity' to improve health rather than a time-wasting inconvenience. To help understand how to promote exercise as a valued opportunity, however, we need greater insight into the needs of particular population groups and their perceptions of exercise participation.

Aerobics might be one activity which meets objectives for participation of young women, a group who are at risk at the time of leaving school of a lifetime cessation from physical activity. It is the most popular organized physical activity for Australians aged 15 and over (ABS, 2007). However, very few studies have been undertaken into perceptions of exercise class participation. Past research has revealed that when exercise participants perceive a caring and task-involving climate in their classes they reported significantly higher effort, enjoyment, perceived competence, and commitment to future exercise, and lower tension and social physique anxiety (Brown & Fry, 2009). Further, if we can understand how exercise classes may meet the needs of client groups, exercise promoters may be better placed to facilitate a rise in the physical activity rates for girls - a major aim for physical educators and researchers into the new millennium (Daley & Buchanan, 1999).

### **Research Questions**

The research questions being asked include why do female students participate in exercise classes? What perceived barriers do the students perceive in relation to taking part in exercise classes?

### **Purpose of Study**

Female students completing their final year of schooling in Australia do not have access to ongoing formal physical education classes in the school setting. Their main access to physical activity is through incidental, informal or formal activities pursued outside the school setting (such as walking, competitive swimming, recreational tennis or netball). Unfortunately this policy occurs at a time of increased sedentariness, and perceived levels of subjective stress and pressure.

While psychological intervention and counselling is often recommended as a means of treating HSC stress (Gaston, 2008), it would also be useful to explore simple, accessible strategies such as active lifestyle programs. However there has been no research published to date exploring the acceptability of such options. Therefore the purpose of this study is to explore the experiences of a group of female students completing their Leaving or "Higher School Certificate" (HSC) taking part in community-based exercise classes. The next section outlines the methods used to access the data.

## **Methods**

### ***Participants***

The study utilised a qualitative exploratory design with a grounded theory approach. As the study utilised grounded theory methodology, sampling occurred on the basis of gathering data about concepts, not numbers of 'persons' per se (Strauss & Corbin, 1990). To access the data, the study used a purposeful sampling technique whereby participants were invited to participate in the classes and focus group interviews via flyers at the local community exercise venues and advertisements placed in a local newspaper. The participants included eight (n=8) apparently healthy, female HSC students, all aged 18 years.

### ***Instruments***

A focus schedule was used to help focus the conversations with participants about their exercise experiences. The focus schedule is a list of questions or issues explored during the course of the focus group interview. It helped to keep the interaction focused, but allowed individual perspectives and experiences to emerge and the interviewer establish a conversational style (Patton, 1980, pp.200-1). Typical examples included open-ended questions such as, "How do you feel about participating in the classes?" or "Why did you want to take part in the classes?" Comments, expressions and descriptions given by the participants were used to indicate examples of class perceptions and perceived wellbeing.

### ***Procedure***

Participants expressing an interest in the research project were provided with an Information Letter outlining the class program and focus group interview procedures involved. Return of the signed Informed Consent form was taken to indicate informed consent to the focus groups and that a participant may withdraw from an interview or the whole study at any time, without giving a reason. All names and identifying information were changed in order to protect the confidentiality of participants. The program was offered for 10 weeks after school at a local community centre. The exercise classes conducted once a week involved a warm-up, low-impact aerobic exercises, muscle conditioning, cool down and relaxation components, all held to a music background.

In-depth, focused group interviews were used as a means of gaining understanding of the informant's lived experience of the exercise class in the context of her daily lifestyle. Focus groups are basically group interviews, with the researcher taking the role as moderator (Morgan, 1988, pp.9-10).

All interviews were audio-taped and fully transcribed verbatim using a word processing package. All transcript material was used for data analysis purposes. As analysis of the data was completed continually and immediately after each stage of data collection, data collection continued until theoretical saturation took place. That is, until no new data was unearthed from the interviews.

### **Data Analysis**

Using the techniques outlined by Strauss and Corbin (1990), after the qualitative data were transcribed verbatim, a content analysis was employed to discover the major categories or themes to emerge characterising the perceptions of the exercise experience. A grounded theory approach allowed what is important to the phenomena of perceived benefits and barriers to exercise class participation to emerge from the data collected. The next section outlines the main findings to emerge from the data analysis.

## **Findings**

### **Why Take Part?**

When asked why they had taken part in the classes, the students tended to state it was due to (a) mental reasons or (b) wanting to get fit. Mental reasons were explained as being due to currently feeling stressed. This desire to achieve a “de-stress”, is illustrated by the following comment:

*I come to de-stress. That's why I exercise. My family's all over-achievers and we all get stressed. And I didn't want to get stressed in my HSC year (Maxine).*

Maxine said that the way that the class helped her was that it formed a distraction to stressors:

*I find exercise takes my mind off stressful things and when I go home I'm calmer and it helps me work.*

The other mental factor was due to feeling a ‘mind-break’ or time-out from stress, as explained by Angela:

*I come because I finish school early and it's like a break before I study. It takes my mind off study. I find with any kind of exercise it takes my mind off work.*

The main reason that Angela achieved the break in this way was due to enjoyment at the class:

*It's fun. More fun to do it with someone else.*

Trina came to classes for a break from study. As a result she felt better about herself and thought that she could study more effectively:

*You know how when you do exercise and you feel all good about yourself, it helps like, you get back into study. 'Cause I'm feeling good about myself I can concentrate more. If I don't do exercise, then I just feel all distracted somehow.*

Maxine agreed that, “Exercise helps you to re-focus. That helps you with your brain and study”. Ann joined the class to achieve a break, however, described it as taking the form of a “physical release”:

*I came because I really need a release, like a physical release, during the HSC year. I like how the class has a really good combination of fitness, stretching and relaxation.*

This was related to the second most common reason the students took part, which was due to fitness reasons, or “to get fit”, as explained in the following two examples:

*It helps you to get fit. I used to run every day. Because of the HSC I stopped doing it. So this helps me do something. I feel fitter and I feel a lot more flexible as well from the stretches (Trish).*

*I quite like exercise – it makes me happy but the only exercise I was doing was soccer and then with school I couldn't go so much to trainings with school because of school commitments. I want to get back fit (Sue).*

Other themes to arise from the focus groups related to positive adherence issues included experiencing varied exercise routines, as Ann described:

*I get really bored if it's the same thing over and over, but this is really fresh, something different every single time.*

Maxine mentioned that she “Liked the music” and for Pru, having transport available was important:

*Having a car helps get you there, or you need a parent to offer you a lift.*

However, only Maxine attended all 10 sessions. It was interesting to discover barriers to attendance, as summarised in the following section.

### **What Barriers Prevent You Attending?**

When asked about barriers to attendance, the main reasons given by the students included (a) study, and (b) individual taste and friendships. Study commitments such as having to complete an assignment that was due the next day, feeling obligated to write up study summaries or study for an examination were commonly mentioned perceived barriers:

*The only reason I wouldn't come is if I've got something due (Maxine).*

*Like the time I didn't come, I had my Trials the next day. I had a lesson on (Ann).*

*I had a Studies of Religion assignment due that was worth 50% of our assignment mark (Sue).*

Trina finds that with the actual HSC exam so close now, she is busier with study than ever, and the stress is so great she doesn't feel able to attend.

If a student didn't attend, it could also be due to the classes not being to an individual's personal taste or as Sue explained, it “Depends on the individual and what they're into”. Ann felt torn between hanging out with her group of less active friends who weren't ‘into’ the classes, and coming along:

*My friends help me come. Most of my friends are an 'active' circle of friends. Whereas my other two close friends are not as into it and won't wanna be, "Let's go every week".*

The social aspect was important as Angela stated that while it was fun to take part, "It's more fun to do it with someone else". The next section contains a discussion of the key findings of the study.

## Discussion

It was not surprising that mental reasons were the main reason the students in this study were taking part in the classes. Current research demonstrates that the completion of the New South Wales HSC is a potentially stressful experience that can have lasting impacts on the mental wellbeing of students. This is demonstrated in the research which reveals that unfortunately during this period, 40-50% of Year 11-12 students experience clinical levels of psychological distress (Hodge, McCormick, & Elliott, 1997; Smith & Sinclair, 1998).

The findings suggest that exercise class participation provided the female HSC students in this study with a means to feel as though they were 'de-stressing' and taking 'time out' from study. The students were perhaps able to feel less stressed and clearer of mind once they had the opportunity to take part in the exercise.

The desire 'to get fit' as a reason for taking part was consistent with the lack of current physical activity offered at school for these students in the form of compulsory physical education or sport. Due to the sedentary nature of increased study that only increases as the final exam approaches, students probably 'feel' less active, however this feature needs further research (Scully et al., 2007).

The main barrier to attending was also due to the student experiencing stress. Recent studies have linked the final years of secondary schooling in Australia with increased levels of stress that can place students at risk of developing further mental conditions such as depression (McGraw et al., 2005; Kouzma & Kennedy, 2004). A large sample of Australian Year 12 (HSC) students also revealed experiencing high levels of depression, stress and anxiety, with more than 10% of students extremely or severely stressed and depressed and more than 20% extremely or severely anxious (McGraw et al., 2005). Feeling stressed or depressed could be inhibiting or de-motivating students from engaging in exercise.

There is a lack of research that has been conducted examining the potential benefits of physical activity interventions designed for population sub-groups. However research by Otter & Currie (2004) demonstrated that specialised programs tailored to the target audience's needs can confer important social and mental benefits in addition to physical. The students in this study tended to highlight the mental benefits, followed by the physical. This is similar to the experiences reported by participants in other less 'serious' physical activity programs such as the research carried out by Currie & Develin (2000).

## Limitations

While the focus groups offered a convenient method to record data in terms of time and place, they may not have revealed as much rich data as individual in-depth interviews may have. The group may have served to increase interaction and conversation, however some individuals may have also felt more intimidated or constrained speaking in front of their peers (Morgan, 1988, p.21). This group of female students may have entered the program

experiencing higher mental health levels than other groups. As the program was held off campus from the school environment, this may have assisted the students in gaining a sense of distraction from studies or exams. Also, the findings are limited in that the study only focused on participation in 'aerobics' or exercise classes.

This study is the first examining female HSC students' experiences in an exercise program. However it formed a preliminary investigation and the findings are not generalisable to the wider population. It might be useful for example, to explore participation in other settings, various modes of physical activity, include groups of students from different socioeconomic backgrounds or if males would find the classes effective in assisting them during the examination period.

### **Conclusion**

The focus group data revealed that for the students, the main reasons for taking part included mental and fitness benefits. A very important finding warranting further research is that the students reported feeling more focused and able to study following participation in the class. For this group of female students studying for the HSC, taking part in exercise classes offered a simple and effective strategy to help cope more effectively with exam stress.

### **Implications for Physical Education**

Schools need to consider re-implementing compulsory physical education classes throughout the HSC period in Australia. High schools can also create more effective health promoting environments supporting HSC students through offering either onsite or sponsoring conveniently located local community-based exercise programs.

### **References**

- Armstrong, T; Bauman, A; Davies, J. (2000). Physical activity patterns of Australian adults. Results of the 1999 National Physical Activity Survey. Australian Institute of Health and Welfare (AIHW). AIHW Cat. No. CVD 10. Canberra, Australia.
- Australian Bureau of Statistics (ABS). (2007). 4177.0 - Participation in Sports and Physical Recreation, Australia, 2005-06. Canberra, ABS.
- Australian Department of Health & Ageing (ADHA). (1999). National Physical Activity Guidelines for Australians. Canberra, AGPS.
- Australian Sports Commission (ASC). (1998). Active Australia National Physical Activity Survey 1997. Canberra, Australia.
- Brown, T. & Fry, M. (2009). Perceptions of a Caring and Positive Climate in Exercise Classes. Paper presented at the 2009 AAHPERD Convention. 31 March – 4 April, 2009, Tampa Florida, US.
- Center for Disease Prevention & Health Promotion. (1996). Physical Activity and Health. A report of the US Surgeon General. PA, US Department of Health & Human Services.
- Currie, J.L. & Develin, E.D. (2000). The Strollers Pramwalking Program: A community intervention aimed at increasing the physical activity level of mothers with young children. Health Promotion Journal of Australia, 10, pp.57-59.
- Daley, A. & Buchanan, J. (1999). Aerobic dance and physical self-perceptions in female adolescents: some implications for physical education. Research Quarterly for Exercise & Sport, 70, pp.196-200.

- Gaston, J. (2008). *Stress, Anxiety and the HSC*. Macquarie University: Anxiety Research Unit Centre for Emotional Health.
- Hodge, G.M., McCormick, J., & Elliott, R. (1997). Examination-induced distress in a public examination at the completion of secondary schooling. *British Journal of Educational Psychology*, 67, pp.185-197.
- Kouzma N.M. & Kennedy, G.A. (2004). Self-reported sources of stress in senior high school students, *Psychological Reports*, 94, pp.314-316.
- McGraw, K., Moore, S., Fuller, A. & Bates, G. (2008). Family, peer and school connectedness in final year secondary school students. *Australian Psychologist*, 43, pp.27-37.
- Morgan, D. (1988). *Focus Groups as Qualitative Research*. Newbury Park, California.
- NSW Centre for Overweight and Obesity (NSWCOO). (2006). *The Weight of Time: Time influences on overweight and obesity in women*. North Sydney, NSW Health Department.
- Otter, L. & Currie, J. (2004). 'A long time getting home: Vietnam Veteran's experiences in a community based exercise rehabilitation program.' *Disability and Rehabilitation*, 26, pp.27-34.
- Patton, M. (1980). *Qualitative Evaluation Methods*. Beverly Hills, Sage.
- Scully, M., Dixon, H., White, V. & Beckman, K. (2007). Dietary, physical activity and sedentary behaviour among Australian secondary students in 2005. *Health Promotion International*, 22, pp.236-245.
- Smith, L. & Sinclair, K. L. 1998, *Stress and Learning in the Higher School Certificate*. Paper presented at the Australian Association for Research in Education Conference, 1998, Adelaide.
- Strauss, A. & Corbin, J. (1990). *Basics of Qualitative Research*. Newbury Park, Sage.

## About the Author

### *Dr. Janet Lynne Currie*

Dr. Currie has a background in school teaching, university lecturing, community health promotion and health policy. She has qualifications in physical education and health promotion. Her research interests focus on investigating the perceived benefits of participation in leisure and physical activity, health promotion policy, marketing and promotion of healthy lifestyles and social and emotional well-being. Janet has designed numerous educational materials in the area of health promotion and exercise including books, videos, teacher and community resources. She created the highly successful, 'Strollers' pramwalking program for new mothers and is currently involved in creating effective health education messages designed for young males in the school classroom setting, using sport as the key focus. Dr. Currie is a past National President, Vice-President and State representative of the Australian Health Promotion Association. She is a Director of Health Education and Promotion International. She was awarded the Outstanding Community Engagement Award (Australian Catholic University) in 2003.