

VicHealth: Health through sport program

SPORTS ROLE MODELS AND THEIR IMPACT ON PARTICIPATION IN PHYSICAL ACTIVITY: A LITERATURE REVIEW

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EXECUTIVE SUMMARY

- There is a common perception that sports people are viewed as role models and that they have a correspondingly positive impact upon individuals and the broader community in general. This perception has resulted in a number of programs being instituted where prominent and successful sports people have been promoted to the community as role models in order to influence sports participation rates. Further, the proposed link between sporting success and health has been used to justify engaging successful sports people to disseminate "healthy" messages to the community.
- The purpose of this review of literature was to explore whether there is any evidence available within the peer reviewed academic press or being held by the sport and recreation industry and the welfare sector to support these claims.
- A detailed search of the academic literature was undertaken using five major international databases. Ninety-five relevant peer reviewed articles were identified. In addition, 15 sport and recreation/welfare organisations that have conducted role model programs were contacted in an attempt to access any industry-based data on the topic. These organisations covered a broad range of groups that have conducted programs with a focus on women, youth, Koori, older adults and individuals with a disability.
- It was immediately evident that there is very little academic or industry-based evidence to support the anecdotally proposed causal link between role models and sports participation. In essence, the industry based programs that have been conducted have either not been evaluated at all or the evaluation has been superficial and cursory. There has, however, been a small number of programs that have undertaken a structured evaluation and some promising trends have been identified linking sports role models to health promoting behaviour.
- Despite the limited amount of evidence available to support the commonly held belief that sports role model programs have a demonstrable positive

effect on the community, a number of issues became apparent during the review process.

1. It is critical that role model programs be seen as a continuum from single exposure events to a long term mentoring approach and that it is important to clearly define the type of program being proposed.
2. There is ample theoretical evidence to support the concept of conducting role model programs.
3. Role model programs should be seen to encompass parents, teachers and other significant adults as well as celebrities and sports people.
4. Role models are not always positive; they can be seen to promote negative social images, beliefs and behaviours. This can apply equally to teachers (particularly physical education teachers) and parents as it can apply to celebrities and athletes.
5. There are significant gender differences in the way athletes are viewed as role models, with males being more likely to identify with successful athletes while females tend to identify with parents.
6. In general, the most effective role model programs are those that focus on developing a long term, mentor relationship particularly for individuals from socially disadvantaged groups and "at risk" groups.
7. Industry based programs such as those conducted by the "Beyondblue" initiative and the Whitelion Juvenile Justice Centre have shown some promising trends to support the involvement of sports role models in working with young people.

8. A recently published review by MacCallum and Beltman (2002) has identified the general characteristics of successful role model programs.
 9. There was a lack of evaluation funding built into the programs.
- It is clear that the capacity of sporting organisations to evaluate their role model programs is limited. These organisations need support and guidance in order for them to be able to undertake meaningful evaluations of their role model programs. There is ample evidence to support the potential for academic based researchers to work in partnership with the sport and recreation industry along with the welfare sector in order to ensure that the role model programs are evaluated in a useful way.

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1. INTRODUCTION

1.1 The Purpose of the Report

The “Sports Role Models and Their Impact on Participation in Physical Activity” report was commissioned by VicHealth to explore the effectiveness of sports role models in increasing participation in physical activity. The specific objectives were to research the following questions:

- Do sports role model programs improve participation in sport? If so, do they influence certain groups of people more or less than others?
- Do sports role model programs improve participation in the activities other than playing that contribute to sport, such as, coaching, officiating, and being a club or social member?
- Do sports role model programs improve participation in sport in low participation groups, such as, culturally diverse people, indigenous people, women, older people, people from low incomes and youth?
- Would a different type of role model or role model program be more successful in increasing participation in sport, particularly in low participation groups?

The report was conducted in two parts. The first involved the a review of international and national literature published on the topic of role models in the context of sport, physical activity and other appropriate areas. The second part of the report has reviewed industry-based programs that have used various role modelling approaches.

1.2 The Methodology for Published Literature Review

The project involved an extensive literature review in order to determine the impact of sports role model programs on sport participation and retention. The process included a computerised search (Table 1) of reputable databases available in the

areas of concern. The computerised search explored or accessed the following databases:

Table 1
Sources for Computerised Literature Search

1.	EBSCO Host Academic Search Elite EBSCO online citations Psych Info Health Source Nursing Health Business full text Sports Discus Psychology and Behavioural science collection
2.	Webspirs Ausport APAIS Austrom (Education) Austrom (Family)
3.	Wiley Interscience
4.	Proquest 5000 (1999 – now) Academic Research Periodicals Proquest Education complete
5.	Proquest 5000 (1986 – 1998) Academic Research Periodicals Proquest Education complete
6.	Current Contents
7.	Ingenta

A history of key words used for each database was documented for future reference as shown in Appendix A (Table A1). Once the relevant articles were located and obtained they were then subjected to a citation check to locate further relevant articles. After analysing each article a Data Extraction Form (Appendix B) was used to provide a concise summary of the articles. Information included on the data extraction form included the first author, type of study, purpose of study, method, sample and setting, important findings and brief critique.

1.3 Structure of Review

This literature review provides an extensive overview of the published national and international literature on the various areas that relate to role models. The review begins by establishing what and who are role models, followed by the theoretical perspectives related to role models. The review contains four main sections, each of which has an objective that relates to the impact of role models on a different target group. The sections of the literature review attempt to answer the questions as indicated in the purpose statement above.

The final section of the literature review summarises the effectiveness of sports role model programs in increasing participation in sport.

2. BACKGROUND

2.1 What is a Role Model?

Role models, heroes and mentors are a part of everyday life and therefore are thought to have a significant impact on the beliefs and actions of individuals. They are also frequently used in programs to deliver messages to a target group in order to evoke behaviour change. However, what is the nature of mentors?

For the purpose of this report, the term role model is considered to vary from an individual who is “perceived as exemplary, or worthy of imitation” (Yancey, 1998, p. 254) to an individual who inspires individuals or groups of people, through personal contact and relationship (Ingall, 1997). Such people as teachers, spouses, parents, peers and sporting heroes may be considered as role models. Further, the concept of mentoring and heroes are included within the scope of this definition as a role model. The mentor shares knowledge, experiences and provides advice to the mentee that aims to facilitate career development and increase future opportunities (Starcevich, 1998). The term “hero” is frequently used in the place of, or to describe, role models and originates from the Greek word meaning, “person distinguished for courage, fortitude or deeds, its meaning is adaptable between cultures and through time” (Lines, 2001, p. 287). It is important to note, that role modelling, including mentoring and heroes, should not be assumed to be solely positive in nature and that the person is worthy of imitation, because they may influence non-participation or deviant behaviour.

2.2 Theoretical Perspectives of Role Modelling

In attempting to understand the place of role models and how the mechanism of role modelling appears to operate, this paper will discuss theoretical perspectives under four general headings. Three of these will highlight specific theories which provide logical clues as to why role modelling occurs while the fourth section will briefly mention a few related theories which could, in part, have some additional relevance.

2:2.1 Social Cognitive Theory

This is a theory that has evolved from the original work of Bandura (1977) who put forward a social learning theory. Bandura built on his earlier work with the help of a contemporary, Walter Mischel, who emphasised the cognitive and situational variables associated with human behaviour. It was proposed that there was intra-individual cognition which encouraged Bandura (1986) to extend his own work on observational learning and self-regulation.

Bandura (1977) noted in his earlier work, that the task of learning would be a most tedious task if there was reliance solely on the effects of the learner's own actions. Most learning is, therefore, learned from observation and hence relies to a large extent on the influence of role models. Basically there are four processes attached to social learning:

- *Attentional processes:* Learning will not occur unless the learner attends closely to the model and perceives specific clues accurately. Such learning is subsequently mediated through factors such as model characteristics, observer characteristics and features of the modelled behaviour. In the first instance, target models may influence learners through such features as attractiveness, status, competence and similarity. Secondly, the learner's characteristics such as race, gender, socio-economic status may also be important. Finally, the model's method of behaviour presentation (clear, boring or featuring variety) is particularly essential.
- *Retention processes:* With lack of recollection, the observation process becomes meaningless. Hence, the retention process is assisted greatly through the medium of symbols which may be represented through two systems, namely images and words. Sensory stimulation result in perceptions of events which, through repeated exposure, begin to be associated with certain images. The thought of leg spin bowling in Australia may conjure up the image of Shane Warne who has been significant in revitalising a lost technique. Many of the symbolic codes are also retained through verbal cues because they can often incorporate a great deal more information. Details of the route taken by a model are often stored as a verbal code. Retention is also aided by the employment of mental rehearsal when learners envisage themselves playing a Tiger Woods' tee shot or a Pat Rafter forehand shot in tennis.

- *Motor reproduction processes*: This is a process of converting symbolic representations into the necessary behavioural actions. The actual act of representing a model's behaviour involves cognitive organisation of responses, initiation, monitoring and refining. Not all details are embraced by the learner in the first excursion with a new skill, but an approximation results which may then be refined with reinforcement of key cues. Not all the cues are necessarily registered through the modelling process and therefore it necessary to provide extra input to assist in the execution of correct and effective behaviours.
- *Motivational processes*: Enacting a modelled behaviour also depends on the desire to commit. Usually, if the consequences of the behaviour are deemed to be valuable or rewarding rather than negative in outcome, then there will be a greater incentive to perform that behaviour.

The above factors associated with this social cognitive approach to role modelling have specific and important practical applications in the sport and physical activity sphere. The communication approach by the model, the symbolic representations of words and images, the precise processes of interpreting and observing cues plus the factors which motivate behaviour can all be applied in the understanding of individuals' subsequent involvement in physical activity.

2:2.2 Self-Efficacy Theory

The effectiveness of models to influence learners to actually carry out a particular type of behaviour may also be dependent on the characteristics of these models (Bandura, 1997). If a model is similar, rather than dissimilar, to a learner and demonstrates a highly skilled activity, there is more chance for the learner to be motivated. This type of behavioural mechanism can be associated with Bandura's self-efficacy theory which is a competency based theory that has been applied to over 100 studies (McCauley & Mihalko, 1998). There are three mediating factors associated with this theory:

- *Self-efficacy expectancy*: This is concerned about the learners' perceptions of how capable they feel they are to actually carry out the behaviour.
- *Outcome expectancy*: If there is a high probability that the behaviour will result in the specific outcome, there is a greater chance that the learner will adopt the behaviour.

- *Outcome value*: If the outcome of the behaviour is desirable then there is a greater likelihood of the behaviour being undertaken.

The above theory is particularly useful to explain the performance of motor skills but it also has relevance to physical activity involvement. Bandura (1997) has indicated that women are especially inclined to operate on their beliefs of physical efficacy and that the producers of sport videos often neglect the benefits of assumed similarity and subsequently portray superstars in examples of athletic performances.

2:2.3 Social Context Framework

Whereas previous theoretical frameworks have focused on observations and cognitive factors associated with the learner, another approach which may be particularly effective is one in which there is significantly increased interaction between the role model and the learner. Such an approach is perhaps more suited to the process of mentoring and as Galbraith and Cohen (cited in Kerka, 1998) has indicated, "The idea of learning a transaction – an interactive and evolving process between mentors and their adult learners – is considered is a fundamental component of the adult mentoring relationship" (p. 4).

The main feature of this approach is one of context, especially if learning or modelling occurs within the real live environment which embraces the behaviour. The framework is analogous to a master/apprentice relationship where the learner under the expert tutelage of the expert carries out the job. Haney (1997) relates the process to one in which the mentor guides, advises, coaches and motivates the learner. The expert provides the learner with appropriate scaffold (aids) with which to execute the behaviour. As the learner embraces the behaviour, then the scaffolding is gradually dismantled until the apprentice is able to work independently. The idea of eliminating the trainer wheels from a bicycle provides an idea of this interesting mechanism

As with the other two frameworks, there may be issues relating to differences between learner and expert which may provide certain barriers in the process. Gender or education may be particular inhibitors and an expert who is narrow in

outlook or shallow in knowledge or exclusionary with ideas may inculcate a constraining rather than a creative environment (Cleminson & Bradford, 1996).

2.2.4 Other Useful Frameworks

Several other theoretic frameworks may also have some relevance with regards to a learner's decision to model another person's behaviour. Some of these may relate to some aspect of stage theories where behaviour may be more likely to occur according to the stage at which a learner has reached. The trans-theoretical model of behavioural change (Prochaska & Marcus, 1994), although applicable to health behaviour adoption, may indicate that a learner is more vulnerable to behavioural suggestions from role models depending on the level of preparedness at which that person currently operates.

Similarly, such theories as the health belief model or the theory of planned behaviour may also contain applicable sections to provide a further understanding of role modelling behaviour (see Buckworth & Dishman, 2002). However, it would be somewhat restrictive if the approach to role modelling in sport and physical activity were attacked solely from the perspective of one theory or framework. The further analysis of current perspectives may subsequently result in the development of an improved approach which is more appropriate for studying the world of physical activity, sport and recreation.

3. WHO ARE ROLE MODELS?

The role models who influence children and adolescents tend to change over time (Glover, 1978). Early in life, young children refer to their immediate family members, to provide positive attitudes and behaviours. Up to the age of five, parental influence may have the greatest impact. At school, the principal role models change from family members to friends and teachers and as the child continues to get older, his/her role models begin to originate from a range of other areas including athletes, coaches, television stars, pop stars and movie stars (French & Pena, 1991). Parents, friends and teachers may still be seen as role models during the adolescent and adult years, especially for females. The following section provides a review of the literature associated with the role model preferences of young people.

3.1 Family Members.

During the child's early years, the parents, provide the most important role models (Glover, 1978). Three main reasons for this are as follows: the child spends the majority of his/her time with the family; young children lack the social skills to establish networks outside of the family; and young children rely heavily on the feedback of parents in assessing competency (Brustad, 1996). As a consequence, family members feature as the main role models until the beginning of school where the child is exposed to a wider range of people. Further evidence concerning the importance of family members in this role is also provided by many other researchers (Anderson & Cavallaro, 2002; Ewens & Lashuk, 1989; Page, 2002; White & O'Brien, 1999).

Comparing various other role models with parents was featured in Anderson and Cavallaro's (2002) study of 179 children aged 8 to 13. Using focus group discussions, the children most frequently identified their parents (34%) as role models and heroes, followed by entertainers (20%) and friends (14%). This research also found the children chose parents more frequently as role models because they were perceived as helpful, understanding and a source of support when required. This was a particularly well-designed study and used a sample representative of the ethnic and gender proportions in the USA population profile.

A similar study by White and O'Brien (1999) used a sample ranging from kindergarten to Year 12 and found that regardless of age level, parents were most often identified by children as heroes. However, the reasons for choosing parents as role models differed across the age groups, with younger children, aged five to six frequently responding that it was because their parents loved and cared for them. Children aged eight to nine appreciated the advice and help with homework that parents provided while finally, older children aged 15 to 16, reported that parents had provided them with various opportunities and therefore had helped to change the directions of their lives. Another example of parental importance (Page, 2002), found that girls were more likely to name parents as role models while boys more often named sports stars or other public figures. When children were requested to name the adult with whom they identified most strongly, boys identified athletes while girls were comfortable with a family member (Ewens & Lashuk, 1989). However, when asked about the most important person in the world, only 4 % of children named athletes and 42 % named a family member. This provides support to the importance of family members in the eyes of young children

3.2 Athletes/ Celebrities

Even though families provide initial role models for children, Fitzclarence and Hickey (1998) suggest that other role models, especially in sport, provide a strong influence on children. The importance of athletes and in addition celebrities was investigated by French and Pena (1991) who asked 100 students in grades 5 to 9 to identify the three people they would most like to be. With responses compared to a pre-television study conducted in 1956 it was revealed that compared to the earlier study, there was a significant shift away from parents, family and known people. The attachment to nurses and firemen as role models had changed to a focus on personalities and characters on television. The gender differences in role model selection was once again identified with males tending to identify athletes, pop stars, actors and television characters, whereas females chose film stars, pop stars, television characters and relatives. French and Pena concluded that television has had a major impact on role model preference of children but failed to consider other factors that may have changed role model preference outside of television. The ability to generalise these findings was also limited by the fact that the subjects in the sample were Caucasian and predominantly middle class.

Similar findings were reported by Biskup and Pfister (1999) who identified that male and female pupils in Germany frequently choose athletes as role models. Based on a series of interviews, the majority of boys identified sporting heroes or action stars as their role models because of their aggression, strength and ability to get things done. In contrast to this, girls preferred movie and pop stars because of their appearance and social behaviour.

The lack of athlete role models for females has been a key feature of the literature in this area. Biskup and Pfister (1999) found that athletes were rated last by females in terms of providing role models, while Ewens and Lashuk (1989), found that sportsmen were identified significantly more often than sportswomen as role models. Consequently girls tend to choose screen and magazines personalities as their sources for role model identification (Lines, 2001). Even these sources have limitations, as shown by Jones and Schuman (2000) who found through content analysis of 132 issues and 5874 advertisements in "Sports Illustrated" that 95.6% of the advertisements focused on men. Furthermore, the advertisements were overrepresented by the sports of football, golf and baseball. The findings of the study are credible as the sample was obtained from analysing three issues from each year of print (1955-1998).

The above evidence does seem to suggest that young people, especially males see athletes/ celebrities as role models. The next section will consider the role that athletes play as role models.

3.3 Influences of Athlete Role Models

Athletes can provide positive or negative influences depending on either the behaviours or utterances which they display to the public. Globus (1998) suggests that many athletes work hard to become positive role models and are often involved in activities such as raising money for charities, acting as mentors and talking to student groups. This may also be part of the athlete's responsibilities as voiced by American Olympic gold medallist, Cheryl Miller who said, "When you reach a certain level of visibility, you are a role model whether you like it or not" (Globus, 1998, p. 28).

In contrast, athletes can be negative role models through inappropriate or unlawful actions, which usually receive wide media coverage (Globus, 1998). Even though there is a belief that many sports provide a rich environment in the development of children, there is much anecdotal and empirical evidence which tends to negate the attitudes and practices of athletes (especially men) promoted in certain sporting cultures (Fitzclarence, Hickey, & Matthews, 1998; Messner & Sabo, 1994). In certain sports, male dominance through the support of patriarchal ideology is very obvious and through the media and other outputs, children tend to model their behaviour on the actions of these sportspeople (Bryson, 1983). Based on observations and interviews with 10 to 12 year old middle class boys participating in baseball competition in the USA, Fine (1987) found that boys tended to develop idiocultures that mirrored those of macho models and a general caricature of traditional masculinity. The modelling behaviour is not just based on players' on-field behaviour but on extra curricula activities where athletes have misbehaved in public places such as night clubs (Fitzclarence & Hickey, 1998). In the USA, Kees (1995) identified that several athletes accused of certain crimes have failed to serve as role models for American youth.

Further evidence of the negative actions of heroes and role models is provided by Lines (2001), who offered a critical discussion of the ways in which sports stars are constructed as role models for young people. The notion that the media play a large role in how a hero/ role model is perceived, encouraged Lines to employ a content and discourse analysis of a range of tabloid and quality United Kingdom newspapers to explore the actions of role models. Role models were often seen as heroes but as the media intrusion into their lives grew, more non-sporting details are provided which often damages their reputations as positive role models. The increased media attention highlights many of the social problems of everyday life and these heroes are often, "seen using and abusing drugs and alcohol, beating wives and girlfriends, and having extra marital affairs" (Lines, 2001, p. 292). Despite these actions, which failed to match the definition of a hero, athletes were still considered to have an influence on young children as role models.

3.4 Teachers

Much research has been completed on the important role model influences of physical education (PE) teachers and health education professionals (Cardinal, 2001; Clark, Blair, & Culan, 1988; Whitley, Sage, & Butcher, 1988). Furthermore, Glover (1978) has indicated that PE teachers and health educators convey important messages to students consciously and unconsciously by their actions and appearance.

Based on the assumption that physically active teachers exude a positive model of a healthy lifestyle, Clark et al. (1988) assessed the lifestyle characteristics of 265 American health and physical educators. The teachers, although they were from a small sample of one Midwestern State, were found to have better health and physical activity habits than most American adults and were therefore seen as positive role models. Further evidence that teachers are positive role models has been shown in a more recent study by Cardinal (2001) where the physical activity and fitness promoting behaviours of 1,210 health, physical education, recreation and dance professionals were surveyed. The results showed that the majority (83%) of teachers were involved regularly in physical activity and also had acceptable Body Mass Indexes (BMIs). A further finding indicated that inactive teachers with higher BMIs had a less favourable attitude towards role modelling compared to active participants with lower BMI's. The study employed a simultaneous assessment of attitudes and behaviours with psychometrically sound measures but the sample consisted mainly of Caucasians.

In contrast, several authors have reported that teachers practice the "Do as I say, not as I do" motto towards physical activity (Jacobson & Kulling, 1989; Whitley et al., 1988). Whitley et al. investigated the percentage of high school Physical Education teachers in a defined population who were involved in a regular cardiovascular fitness program. The survey of 107 Physical Education teachers revealed that, although 75 % of them included fitness activities in the sessions they ran for the students, almost half of the sample did not participate in activities which had cardiovascular benefits. Another study (Jacobson & Kulling, 1989) found credence in the results of Whitley et al. in a critical discussion about the physical activity levels of physical educators and coaches. It was discussed that many physical educators and

coaches had given up physical activity in favour of “Do as I say, not as I do” motto. This lack of activity was seen as a factor leading to unfit, overweight and even obese physical educators/ coaches, which are negative role models for students and athletes (Jacobson & Kulling, 1989).

The above research indicates that teachers may be positive or negative role models depending on their physical activity level. Another factor of role model effectiveness is their actions during classes. Spencer (1998) provided a discussion that focused on how the actions of Physical Education teachers can have a negative or positive impact on students. Teachers create negative feelings towards exercise if “they discipline children with running laps or doing push ups, and also if they advocate the myth of ‘No pain, no gain’, which often leads to discouragement and injuries to the students” (Spencer, 1998, p. 59). In contrast to this, Spencer also found that teachers could be positive role models by being competent, credible and responsible and by showing respect to the students.

3.5 Summary

This section has shown that young people obtain their role models from a variety of areas including family members, athletes and teachers. There is specific evidence to suggest that role model preferences change over the lifetime of a child in particular. In fact, the literature tends to focus mainly on young children and has no reference to adults or minority groups. Parents appear to play a key role as role models from birth through to secondary school. Towards the later years of adolescence, athletes, celebrities or superstars especially for boys become the preferred target of their admiration. For girls there is a preference for movie/ pop stars and family as their role models.

4. EFFECTS OF ROLE MODELS ON PRIMARY PARTICIPATION

Do sports role model programs improve participation in sport? If so, do they influence certain groups of people more or less than others?

4.1 Introduction

The method used to identify and collect articles for the systematic review of literature (See Table 1) failed to identify any substantial articles that evaluated the effectiveness of sporting role model programs in improving participation in sport. There appears to be limited documented evidence of role model program evaluation in sport. With this in mind, this section focuses on the impact of role models have on the behaviour of individuals. It can be assumed that the results of this section of the review will have some direct applications to the sporting culture.

4.2 Direct Effects of Role Models

In a non-sporting context, a relationship has been found between role models and healthy behaviour change. One key study in this area has been recently published by Yancey, Siegel and McDaniel (2002) who studied a multi-ethnic sample of 749 Los Angeles County adolescents aged 12 to 17. Role model selection was studied among these urban adolescents and the relationships investigated between role model characteristics, psychosocial functioning, and health risk behaviours including substance abuse. From a cross-sectional survey, 56 % of the adolescents were able to identify a specific role model which was in turn related to higher self-esteem, higher grades and stronger ethnic identity. Further, for Caucasian males without custodial fathers, it was found that role model identification was associated with a decrease in substance abuse.

In addition to behavioural outcomes, there are affective consequences from the influence of role models. Lockwood and Kunda (1997) examined the impact of superstars on people's self-perceptions with a series of three studies involving university undergraduate students. Relevant superstars and the perceived ability of obtaining the same status as the role model provoked inspiration and self-

enhancement of participants. Conversely, irrelevant superstars or perceived status unattainability resulted in feelings of self-deflation.

The personal characteristics of role models are particularly important for companies who use celebrities for the promotion of products brands and organisations. Shanklin and Miciak (1996) found that prominent advertising companies and corporations chose suitable role models based on personal credibility, celebrity athlete/audience congruence, celebrity athlete/product symmetry and personal attractiveness. Only when all of these criteria were met successfully, did the company take steps to associate itself with the role model.

4.2.1 Physical Activity and Parents

Parents have a vital influence on the activity patterns of their children. Parents can have a major impact on their child's attraction to and participation in physical activity (Perkins, 2000). The attraction of children to physical activity has been researched quite thoroughly over many years (Babkes & Weiss, 1999; Brustad, 1993; Orlick, 1974). Early research by Orlick (1974) on the human environmental factors related to participation found that the decision to participate in sport by the child was positively influenced by the presence of a parental role model. Boys who began to participate in organised sport at an early age (six or seven years of age) were associated with parents who had been or were currently involved in sport.

Further evidence of the influence of parental activity orientation was provided by Brustad (1993), in a study of 81 fourth grade children. Results indicated that their upper class parents who expressed high levels of enjoyment in their physical activity were more likely to provide encouragement for their children to engage in active pursuits. In addition, boys tended to receive more encouragement than girls. A similar study by the same author (Brustad, 1996) focused on lower socio-economic background families and identified a significant relationship between parents' physical activity beliefs and the behaviours of children and their attraction to physical activity. This meant that boys who believed their parents encouraged them to be active and also saw their parents being active had a greater preference for physical activities and sports. In addition, these male children had higher perceived

competence levels and had more fun in being active than their peers who received less parental support.

The above findings were replicated in a specific sporting example by Babkes and Weiss (1999) who examined the relationship between children's perceptions of parental influence and their psychosocial responses to competitive soccer participation. The importance of parents as role models was again confirmed, this time with a questionnaire in a study of 227 junior athletes and 283 parents. It was found that athletes who had higher perceived soccer competence, enjoyment and intrinsic motivation were associated with parents who were positive exercise role models, had more positive beliefs about their child's competency and gave more positive responses to successful performance. It should be noted that the sample was attained from a select statewide soccer competition in America that required a substantial amount of time, money and effort to be devoted to soccer. With this in mind, the results show that positive parental role models are important to those involved in sport at a higher level.

Parents can also serve as inhibitors of physical activity as was demonstrated by DeFrancesco and Johnson (1997) with a study of 101 athletes and 45 parents involved in a prominent junior tennis program in South-eastern America. Using a Likert scale questionnaire, results showed that parents who emphasised winning and displayed behaviour embarrassing to children tended to discourage their sons and daughters from physical activity participation.

4.2.2 Physical Activity and Peers

Despite the fact that peers are important in the activity experience of young people, there is little research which has focused on peer relationships in the physical activity domain. Asher, Parker, and Walker (1996) is one exception where the effect of peer acceptance and friendship has been related to increased physical activity. However, one recent empirical study (Smith, 1999) tested a model describing the relationships among perceptions of peer relationships, physical self worth, affective responses towards physical activity and physical activity motivation. A questionnaire that assessed the above variables found that peers are important role models to encourage physical activity in young students. Specifically, the results suggested that

“perceptions of both friendship and peer acceptance in physical activity settings can contribute to the formation of physical activity attitudes and behaviours of young adolescents” (Smith, p. 346).

4.2.3 Physical Activity and Teachers

McTeer and White (1991) examined the impact of high school physical educators on different kinds of student physical activity. A questionnaire administered to 239 male and female first year physical education classes at two Canadian Universities revealed that students who saw the teacher as an important role model were involved in a greater number of physical activities. Further, those who saw their physical education teacher as an important role model were more likely to be involved in competitive sport.

Additional work has been concerned with the physical appearance of teachers where Melville and Maddalozzo (1988) investigated whether a male physical educator's appearance of body fatness affects his ability to teach and instil good exercise intentions in high school students. A number of exercise concepts were presented to 850 students from six schools via one of two 20-minute videotapes. The tapes were identical except for in one of the tapes the instructor wore a “fat suit” to alter his body dimensions. As a result, the students thought that the non-fat teacher was significantly more knowledgeable and believed he was a much better role model than the overweight instructor. A further finding was that the students paid far less attention to the overweight instructor.

4.2.4 Summary

Parents are particularly influential in encouraging children to participate in sport and physical activity. Those parents who participate in sport or who have a positive attitude and belief in a physically active lifestyle are more likely prove a catalyst for their sons and daughter to engage in physical activities. A family environment which is positive towards exercise tends to influence many members of that family. This appears to confirm the implications from Bandura's (1997) self-efficacy theory where superstars who are very dissimilar to role learners are not perceived as effective role models.

Physical education teachers are generally seen as role models for children by encouraging increased participation. There is some implication that junior school children lack appropriate models because of the prevalence of female primary teachers who tend to portray an inactive and inappropriate approach to physical activity.

The influence of peers on physical activity engagement is not apparent from the recent literature reviewed. Other factors associated with peers are discussed later in the report.

4.3 Role Model Effect on Motor Behaviour

One important area of role modelling in sport and physical activity has been in the area of skill acquisition and learning. Learning outcomes have been assessed based such teacher aspects as skill, approach and relevance.

4.3.1 Self-Efficacy and Learning Skills

Self efficacy, which is associated with the perception by the learner about whether he or she is possibly able to carry out the skill, is a factor that has been researched quite extensively. In one older experimental design by Schunk and Hanson (1985) children's self-efficacy and achievement were significantly influenced by their observation of peer models when learning a new cognitive skill. The participants included 72 children with learning difficulties who were randomly assigned to one of six experimental conditions. The results indicated that when children observe a peer model, it leads to higher self-efficacy for learning, post test self-efficacy and achievement than when children observe a teacher model or do not observe a model. This suggests that peers play an important role in children learning skills and that similarity to the role model is a significant factor.

In contrast, a critical literature review by Schunk (1987) indicated that peer models can encourage many types of behaviour. However, possessing similarities to the model does not automatically lead to more effective behavioural outcomes.

4.3.2 A Skilled Teacher Model

Support for the notion of the importance of a competent skilled teacher in teaching skills to children has been investigated by many authors (George, Feltz, & Chase, 1992; Landers & Landers, 1973; Lirgg & Feltz, 1991). Early research by Landers and Landers (1973) showed that live performances by a model significantly improved the skill outcome of a sample of girls aged between 10 and 12 years. Furthermore, skilled model performances were also important in achieving improved student performance in a study by Lirgg and Feltz (1991). However, with an unfamiliar model, the skill rather than the status of the model appeared to be the more significant.

The importance of a skilled model has also been demonstrated in a study conducted by George, Feltz and Chase (1992) with a sample of 100 female college students with limited or no athletic experience. Specifically, they examined the effects of model similarity cues on motor performance and self-efficacy, via an experimental design with four modelling conditions. The participants were randomly assigned to one of the following conditions: an athletic male model, an athletic female model, a non-athletic male model or to a control group with no model. Overall the main finding was that, “model ability is a more salient similarity cue than model sex for non athletic or unskilled female observers” (George et al., 1992, p. 237).

4.3.3. Cognitive Development

A number of other factors have also been implicated in successful modelling behaviour such as the developmental level of the learner. Meaney (1994) determined the effect of modelling strategies on the acquisition, retention and transfer of a novel motor task. The sample of 40 female subjects and 40 male subjects were divided equally between two age groups 9 to 10.6 and 18 to 45 years and were randomly assigned to one of four conditions. The conditions were visual model (control), visual model plus cues, visual model plus verbal rehearsal and visual model, verbal rehearsal plus cues. The children were found to perform better in the last two conditions, whereas the conditions had no effect on the adult’s performance. These findings suggest that effective modelling conditions are related to the cognitive developmental level of the learner.

Weiss (1982), discussed the critical developmental factors in the modelling of motor skills, which has particular implications for teachers of young children. Teachers frequently use visual demonstrations to teach new motor skills or to modify existing skills to children. Young children focus on many irrelevant cues, are easily distracted and process visual information more slowly than older children or adults. Skill acquisition could be considerably improved by considering factors such as the child's cognitive developmental level, including attentional, retentional and physical capabilities, as well as motivational orientations.

4.3.4 Relational

It has also been found that role modelling in combination with instructional lessons can have a positive impact on behaviour change in a child. Weiss, McCullagh, Smith and Berlant (1998) confirmed this when they examined the role of peer mastery and coping models on children's swimming skills, fear and self-efficacy. The subjects, 24 children who were fearful of water, were matched to a control, peer mastery or peer coping model condition. Viewing a model combined with swimming lessons was a more effective behaviour change agent for fearful children than swimming lessons alone. However, the findings were somewhat limited because of a small sample size and large within group variability.

Viewing a role model can also help injured athletes overcome their injury as suggested by Flint (1993). It was found athletes viewing someone similar to themselves overcoming an injury, helped them believe that recovery is possible from the injury that they sustained. In "This sense, seeing helps believing" (Flint, 1993, p. 183).

4.3.5 Summary

Effective modelling in the area of motor skill development for children has produced evidence to show the relevance of peer modelling. Children who observe their peers demonstrating skill techniques increase their self-efficacy for learning and cognitive development level. Peer mentoring also seems to have some importance here.

4.4 Effect of Role Models: Non Sporting examples

The effect of role models including athletes and superstars has also been studied in a non-sporting context by a number of authors (Barnett & Bernard, 1993; Oygard, Lisbet, Klepp, & Knut-Inge, 1995). Even though there is little evidence of evaluation of the programs, important findings from this research have relevant application for the sporting domain.

4.4.1 Educational Outcomes

The use of athletes and other professionals as role models and change facilitators in an educational process for at risk students and situational learners was proposed in a study by Barnett and Bernard (1993). The Athletic Role Model Educational Program used role models from various disciplines, including athletes, business, law enforcement, medicine, law and industry, to facilitate the development of participants' cognitive skills. The program attempted to influence the behaviours of situational learners and at risk students through observational learning, identity formation and special learning theories. The effectiveness of the program was not apparent as no process or impact evaluation was reported.

4.4.2 Smoking Behaviour

Changing smoking behaviour with role models was the focus of a longitudinal study by Oygard et al., (1995). Specifically, the study investigated the impact of family and peer role models during the early adolescent years on smoking onset and on subsequent daily smoking among young adults. Baseline data were collected in 1979 from 827 students, aged 11–14 years old from six schools in Norway and their respective parents. The same subjects were also invited to be involved in a two-year follow up in 1981 and ten-year follow-up in 1989. The effect of role models is clear from the finding that smoking was strongly associated with smoking behaviour of friends and siblings. Furthermore, it was found that the baseline smoking rates of mothers emerged as the most important long-term predictor of daily smoking among young adults. Inferences from this type of research suggests that young people look at appropriateness of behaviour to guide their responses.

4.4.3 Safety Behaviour

The idea that role models influence behaviours is also supported by the research published by deTurck, Chih, and Hsu (1999) who conducted three studies to test the effects of role models behaviour on product users safety behaviour. Study one involved the use of chemicals, study two the use of cleaning products and study three the use of pain relievers. The results from the 100 University students involved in each of the studies revealed that observers were significantly influenced if the role model complied with the warning specifications.

4.4.4 Summary

The evidence reviewed in this section suggests some contradictory ideas. Smoking behaviour, a somewhat unhealthy behaviour is apparently encouraged by the presence of smoking friends and family. On the other hand, only compliance by models with appropriate safety behaviour seemed to influence observers' behaviours. There is some connection to the sports context where the safety culture of certain sports is often compromised by a competitive intensity which leads to athletes risking their physical safety in a "win at all costs approach." This has been previously discussed in connection with the concept of the sports ethic where athletes are encouraged to play in a way that is excessive and physical dangerous (Hughes & Coakley, 1991).

5. EFFECT OF ROLE MODELS ON SECONDARY PARTICIPATION

Do sport role model programs improve participation in the activities other than playing contribute to sport, such as, coaching officiating, and being a club or social club member?

5.1 Introduction

The concept of mentoring may be a significant mechanism of social influence where the role model/learner relationship is different than the usual process of role modelling. As has been discussed earlier, mentoring is a process that links an experienced individual with someone who needs support and guidance (Lough, 2001). The more experienced mentor provides advice and also shares his/her knowledge and experiences with the less experienced mentee (Starcevich, 1998). Mentoring is, in fact, the process of people helping people where helping, teaching, advising, counselling, instructing and guidance are provided by one person to another (Marshall, 2001). In the sporting sphere, the process of coaching is one in which the place of a mentor would be perceived by many people as most appropriate.

5.1.1 Mentoring Coaching and Leadership

Mentoring has been shown to play an important role in various areas including the development of coaches and helping individuals such as women overcome barriers which inhibit them from obtaining sports leadership positions. Mentors and coaches are often deemed as similar in tasks but one online survey by Starcevich (1998) found that the primary focus of a coach is to develop specific skills for performance, whereas a mentor takes more personal interest in the mentee and especially with the mentee's long-term development.

Sports coaches often fulfil the role of a mentor but the role of coach does not automatically embrace the tasks of a mentor. According to Bloom, Durand-Bush, Schinke and Salmela's (1998) study of 21 coaches from various sports careers, most coaches had at some period in their careers received mentoring by more experienced coaches. This mentoring allowed the coaches to, "gain valuable

knowledge and insights that helped shape their coaching philosophies and enhanced all facets of their performance” (Bloom et al., p. 267). Furthermore, it was found that when the coaches reached a certain level of expertise they subsequently became mentors to young athletes and coaches.

Mentoring has been found to be particularly advantageous to minority groups in sport such as women. Both Abney (1991) and Wensing (2000) in commenting on the lack of female coaches, officials and administrators in sport indicated that mentoring has been identified as a method to overcome this problem. Likewise, Berg (2000) implied that with active participation among women at American universities being high and the low prevalence of female College coaches, implementation of mentoring schemes would be most advantageous. Mentoring schemes have been proposed as a mechanism for developing female’s careers and providing a genuine opportunity to become significant leaders in sport (Abney, 1991). Although many of these North American ideas are not supported by hard evidence, Marshall (2001) suggests that this type of opportunity should be effective because mentoring increases networking and social interaction.

Wensing (2000) reviewed the literature on mentoring in the Australian and New Zealand region. In particular, she cited a female mentoring program evaluation completed by Reid in 2000 which showed that mentees achieved successful outcomes from a series of group workshops held over a six month period. The program entitled, *Mentoring and Ongoing Development for Leaders in Sport*, helped the female mentees to gain confidence and empowerment, to improve goal setting, to increase communication networks and gain increased motivation and enthusiasm. From Wensing’s review and a similar discussion by Lough (2001), it was apparent that the continued use of mentoring programs would assist in breaking down barriers for female leaders. The dearth of women in sports administration is also apparent and research has provided further evidence to show that mentoring can assist women to achieve management positions. Strawbridge (2000) surveyed 28 women administrators and found that personal mentoring had resulted in a, “significant and timely impact on their subsequent chosen career path” (p. 50).

5.1.2 Mentor Program Evaluation

Again there is little evidence in the literature of mentoring programs which have been evaluated. One program, for example, is the “Mentor as Anything” program, which aims to, “help organizations and individuals provide women with support, training, advice, encouragement, inspiration and networks that would assist them in achieving their goals and potential” (Wensing, 2000, p. 28). According to the author, this program was first used by in 1999 by the Women Sport and Recreation group from Canberra. The evaluation of this program labelled it as a success, as it assisted women in achieving their goals and potential in sport. The evaluation identified mentees as having gained such benefits as increased support and advice, increased confidence and empowerment, improved goal setting, developed networks, increased motivation, enthusiasm and personal satisfaction. This outcome subsequently provided a catalyst in maintaining their interest and involvement in the sport and recreation industry. However, the effectiveness of the evaluation was questionable due to the few details provided of the evaluation methodology.

5.1.3 Summary

In the past it would appear that formal approaches to mentoring were not used and assistance from model coaches or administrators just “rubbed off” onto the particular mentee. Mentoring is now defined as a relationship between an experienced and less experienced person in which the mentor provides guidance, advice, support and feedback to the protégé (Haney, 1997). The objectives of mentoring programs can best be summarised from an appropriate quote by Kerka (1998), “many mentoring programs have been geared specifically to women and minorities as a way of helping break into the ‘Old Boy Network’ through the ‘Glass Ceiling’” (p. 1).

6. EFFECTS OF ROLE MODELS ON MINORITY GROUP PARTICIPATION

Do sports role model programs improve participation in sport in low participation groups, such as, culturally diverse people, indigenous people, women, older people, people from low incomes and youth?

6.1 Introduction

Once again there was a lack of evidence provided about the effectiveness of role model programs for low participation groups. Role model and mentoring programs are assumed to constructively influence a diverse range of individuals and therefore have prompted societal investment in the programs. However, there has been little empirical evaluation of the relationship between role model or mentor characteristics and health behaviour in low participation groups. (Yancey et al., 2002).

6.1.1 Culturally Diverse People

A few publications have examined role model preference and effect of role models on people of different cultures (Garcia, Pender, Antonakos, & Ronis, 1998; Menard, 1998; Tatar, 1998). One particular study of 360 Israeli adolescents and 395 midlife adults by Tatar revealed that parents were the most significant family members during their adolescence while females in both samples chose their mothers as role models more often than males. The most important non-family members for adults were teachers whereas adolescents reported friends of either gender. In contrast, Menard (1998) observed, in an anecdotal report, that more Latino youths often look beyond family members for people to imitate.

The effect of a lack of positive role models on individuals from a sample of racially diverse youth is clearly shown by Garcia (1998). A questionnaire administered to 132 adolescents the year before and year after the transition from junior to secondary school, revealed that boys reported less social support from role models and fewer expectations to be active after the transition. Girls also lacked role models during the transition and subsequently had even fewer expectations than males to be physically active.

6.1.2 Ethnically Marginalised Adolescents

A study by Yancey et al. (2002) was designed to provide components of parenting that are necessary for promoting positive self image in ethnically marginalized adolescents. The program named PRIDE (Personal and Racial/Ethnic Identity Development and Enhancement) was conducted with adolescents aged 14 or older from foster care organisations and involved 145 role model sessions and two seminars conducted in conjunction with 175 role models of various ethnic backgrounds. It was found that the adolescents appreciated the chance to talk to successful people who had overcome similar barriers to themselves. Overall, the PRIDE intervention developed confidence, improved self-esteem and motivated the high-risk youngsters to use educational/ vocational resources that were provided in an independent living program.

6.1.3 Women

It should be noted that many studies regarding women and role models have been discussed in earlier sections. However, there are a number of studies that specifically have focused on women, mentor programs and the effect of role models.

The importance of mentoring for women in tennis was highlighted by Martin (1999) who discussed the development of “Partners for Success”, a mentor program in the Women’s Tennis Association (WTA) tour. The aim of the program was to help talented young women tennis players make a smooth transition from junior/ International Tennis Federation (ITF) level competition into the elite professional tour. According to Martin, “Partners for Success” is claimed to be the first of its kind in professional sport and is based upon mentoring, in which an experienced female tennis player, teaches and helps a player with less experience to assist them to successfully develop and grow in the sport of tennis. The program information showed potential, but unfortunately, no formal evaluation of the program was provided.

Oldenhove (1989) observed that the primary schools are a potential problem regarding role modelling and sport participation. She indicated that most of the sport and physical activity within Australian primary schools was conducted by men while

the majority of classroom teachers were women. Hence, few children see their female teachers taking an active or appropriate role in physical activity lessons. One school had made a commitment to change this image by engaging appropriately attired female teachers to run physical activity sessions. Although this was an anecdotal case study, it did result in greater physical activity participation by all the children exposed to the local intervention.

The positive effects of female role models have also been reported for college aged female students. Mack, Schultz and Araki (2002) examined the relationship between self esteem and the existence of role models among a sample of 36 female undergraduate college students. It was found that students with current role models possessed higher self-esteem scores than those without role models. Despite this apparent relationship, it should be noted that the study used only a small sample of convenience and therefore may not be generalisable.

6.1.4 Disabled

Few studies focused on role modelling and disabled populations. However, one personal account of a hemiplegic cerebral palsy athlete (Moucha, 1991) provided an individual case study of how sport had enabled this athlete to grow physically, mentally and socially. Moucha proposed that disabled people can gain many benefits from sport including the acquisition of motor skills, increased self confidence, goal setting and setting priorities. She mentioned that with disabled people the focus should be on potential and how and what that person can achieve rather than on the barriers which are faced. As a result, she inferred that her successes could provide an excellent source of inspiration for influencing other inactive disabled persons.

6.1.5 Summary

The few studies highlighted here suggest that the availability of appropriately active people from minority groups could provide a useful role modelling opportunity for culturally diverse people. The opportunity for minority or ethnically diverse people to communicate and observe people of similar background but who have been successful, would appear to provide a significant key for encouraging behavioural change among these disadvantaged people. It is similar in process to the earlier

example of an athlete who had successfully recovered from injury and then became a source of inspiration to currently injured athletes (Flint, 1993). This is a clear application of the self-efficacy framework discussed earlier (Bandura, 1997).

7. EFFECTS OF DIFFERENT TYPES OF ROLE MODEL PROGRAMS

Would a different type of role model or role model program be more successful in increasing participation in sport, particularly in low participation groups?

7.1 Introduction

The above research has shown that there is a significant lack of role model programs that have been reported on and even fewer have been evaluated. Therefore, comment on the effectiveness that a different type of role model program is not possible.

8. INDUSTRY BASED PRACTICE GENERATED LITERATURE

8.1 Introduction

This section of the literature review provides a "snap shot" of sport role model programs in Victoria and reports on the extent of evaluation conducted for these programs. It should be noted that the role model programs included in this section is not an exhaustive review of all sports role model programs operating in Victoria. However, the selection of role model programs provides an example of programs that target different population groups and the varying degrees of interaction between role models and program participants.

8.1.1 Methodology

In selecting the role model programs for this section, a snowball sampling approach was employed to gather industry-based practice literature for programs relating to the use of sport role models. Personal contact was made with key informants from the sport and recreation industry to assist in the construction of a current and retrospective list of role model programs conducted in Victoria. A brief phone consultation took place with the managers and/or coordinators of various programs (Table 2) to discuss the overall aims of the program, and to determine the type of evaluation conducted and the availability of evaluation reports.

8.1.2 Role Model Program Categories

The degree of interaction and extent of contact between the role model and the program participant is an important factor to be taken into consideration when determining the effectiveness of role model programs. For clarity, the role model programs discussed in this section have been placed into the following categories developed by MacCallum and Beltman (2002).

1. *Minimal Interaction*: programs with minimal interaction that focus on observation and modelling.

It is perceived that these programs rely on the target audience perceiving that the role model is relevant. The key elements have been reported to include:

- role models appear relevant and accessible and demonstrate coping characteristics;
- role model has an approach that is consistent with the program's philosophy;
- provision of ongoing support for participants; and
- provision of ongoing, concrete reminders of the message of the role model.

2. *Short or Longer Term Interaction:* programs that focus on short or longer term interaction through scaffolding learning and feedback.

Role models may be leaders, community members and coordinators. The key elements are considered to be:

- role models who can relate to young people and display a range of relevant knowledge, skills and personal characteristics;
- provision of a safe and supportive environment;
- focus on purposeful activity; provision of opportunities for developing independence; and
- provision of opportunities for support and encouragement of a variety of role models, including peers.

3. *Development of Supportive Relationships:* programs that focus on the development of supportive relationships.

There is thought to be some relationship to the type of programs described above. However, these programs focus on the development of longer-term relationships. The key elements are considered to be:

- focus on the needs of the people involved;
- special attention to the selection and training of mentors/ role models;
- role models with a non-judgemental caring approach; and
- provision of ongoing support and feedback for mentors/ role models.

Table 2
Summary of Industry Base Practiced Role Model Programs Reviewed

Population Groups	Minimal Interaction	Short/Longer Term Interaction	Development of Supportive Relationships
Women	<ul style="list-style-type: none"> • Sport & Recreation Victoria: <i>Active Girls Breakfast*</i> • Womensport & Recreation Victoria: <i>Active Achievers Program</i> 		<ul style="list-style-type: none"> • Sport & Recreation Victoria: <i>Mentor as Anything Program – Victoria</i>
Youth	<ul style="list-style-type: none"> • Victorian Football Development Foundation: <i>AFL Footballers Role Model Program</i> • Netball Victoria: <i>Elite Players Program</i> • Australian Drug Foundation: <i>Cross-Sponsorship Ambassador Squad</i> • Victorian Institute of Sport / Department of Education & Training: <i>Sportspersons in Schools Program</i> 	<ul style="list-style-type: none"> • Athlete Development Australia / Beyondblue: <i>A3 Program*</i> 	
Koori	<ul style="list-style-type: none"> • Sport & Recreation Victoria: <i>Indigenous Sport & Recreation Program</i> 	<ul style="list-style-type: none"> • Victorian Aborigines Youth Sport & Recreation: <i>Sports Role Model Program</i> 	<ul style="list-style-type: none"> • Whitelion Juvenile Justice: <i>Whitelion Sports & Recreation Program*</i>
Older Adults	<ul style="list-style-type: none"> • Sports Focus (Loddon Campaspe Sports Assembly): <i>Older Adults Ambassador Program</i> 		
Disability	<ul style="list-style-type: none"> • Sports Focus (Loddon Campaspe Sports Assembly): <i>AAA Ambassador Program</i> 		

* Program evaluation documentation available for review

8.1.3 Sports Role Model Programs: Evaluation Audits

The following section provides a brief description of the role model programs investigated and the extent of evaluation conducted. Each role model program has been grouped into population target groups (young people, women, Koori, older adults, disability) and further sub-grouped into program type based on the level of interaction as outlined in the above section.

Of the 15 organisations contacted, only two of the organisations had conducted any form of impact evaluation of their programs. Taking this into consideration, the nature

and extent of program evaluation conducted by the organisations contacted has been included to provide a general overview of the type of evaluation currently being implemented by the sport and recreation industry to assess the impact of their programs.

8.2 Young People

8.2.1 Minimal Interaction Role Model Programs

- **Victorian Football Development Foundation - Role Model Program**

The Victorian Football Development Foundation (VFDF) conducts a role model program that targets Secondary School students. The program uses Australian Football League (AFL) and Victorian Football League (VFL) players to talk to young people in schools about the positive and negative aspects of their sporting careers and to discuss strategies of how they have dealt with certain situations. Speakers have had prior training delivered by Athlete Development Australia and the VFDF receives funding from the Melbourne Cricket Club to deliver the program as part of a sponsorship agreement.

Type of Evaluation Conducted:

There has been no formal evaluation process for VFDF's role model program. The extent of evaluation conducted for the program consists only of recording the number of schools and students participating in the program. In addition to this, the VFDF Youth Development Manager seeks informal feedback from the school on the overall performance of the speaker and program.

- **Netball Victorian - *Elite Players Program***

At present Netball Victoria does not have a structured role model program in place. However, as part of their "Elite Players Program", players are required to talk in Primary and Secondary schools, conduct clinics and be guest speakers at functions. Netball Victoria requests that players talk about their careers in netball with an emphasis on how and where they began their careers and the sacrifices they have made to become an elite sports person.

Type of Evaluation Conducted:

Currently, the role model component of the "Elite Players Program" tends to be delivered in an unstructured manner. Netball Victoria has identified this as an area they could improve on and is currently looking into making the program more formalised. The extent of evaluation conducted by Netball Victoria for this component of the program consists of implementing a one-page questionnaire for schools conducting clinics. Information sought from the questionnaires primarily focuses on the performance of the presenter.

- **Australian Drug Foundation: *Cross-Sponsorship Ambassador Squad***

This program conducted by the Australian Drug Foundation (ADF) uses elite sports people and teams as role models to promote health messages (healthy lifestyle and responsible attitude towards alcohol and drugs) to young people in schools. In addition to the one-off visits, the program also includes social marketing in the form of message branding of elite athletes and teams. The program is part of ADF's sponsorship agreement with elite sports people and teams and involves the ambassadors undergoing training and also receiving a role model kit prior to visiting schools.

Type of Evaluation Conducted:

Even though the program is well developed in terms of preparing athletes and teams as role models for the program, currently there has been no evaluation conducted by the ADF to measure the impact of the program.

- **Victorian Institute of Sport - *Sportspersons in Schools Program***

This program is a joint initiative between the Victorian Institute of Sport (VIS) and the Department of Education and Training (DET). The "Sportspersons in Schools Program" uses VIS athletes as role models to promote the value of active and healthy lifestyles to primary and secondary school students in metropolitan, regional and rural areas. The program requires VIS athletes to visit schools for two sessions to speak about motivation, goal setting, healthy lifestyles and the benefits of participating in sport. VIS athletes engaged in the program are required to undertake training in public speaking prior to being involved in the program. Currently, the program is conducted in over 100 schools in Victoria every year.

Type of Evaluation Conducted:

The VIS has not undertaken an evaluation of the program to assess any increase in sports involvement. However, the VIS does request schools involved in the program to complete an evaluation form to provide feedback on the quality of the program.

8.2.2 Short or Longer Term Interaction

- **Athlete Development Australia - A3 Program**

The "A3 Program" is a short to long-term program that is funded by the national depression initiative, "Beyondblue" and managed by Athlete Development Australia. The program uses AFL players as community role models to train and deliver leadership programs for youth in government and non-government schools, "at risk" youth day programs and Juvenile Justice Centres. On completion of the program, the communities identify, plan and implement a sustainable Community Leadership Program using the young people as the key participants to deliver them.

Type of Evaluation Conducted:

In 2002, "Beyondblue" conducted a process evaluation of the "A3 Program" to identify areas of improvement both in terms of content and future implementation by assessing the value and experience of role models, students and teachers. The evaluation was based on focus group interviews with the participants including teachers, students and role models. All three groups indicated they had enjoyed the program and felt it benefited both the school community and the individual students. The evaluation also identified that the role models (AFL players) highly motivated the students to engage and be involved in the program. Furthermore, the students were able to relate to the role models especially when the AFL players talked about their own adolescent experiences.

The evaluation concluded that the "A3 Program" was very successful in achieving its overall aims for all of the students, teachers and role models involved. It was noted, that the program was also very successful for participants from high-risk populations. Finally, the evaluation recognised the importance for ongoing

refinement, expansion and evaluation of elite role model programs with young people.

Based on the evaluation, the "A3 Program" has found to be a highly successful role model program in achieving its overall aims. The evaluation conducted appears to be thorough and has examined all of the aspects of the program, providing valuable information on the effectiveness of this type of program.

8.3 Women

8.3.1 Minimal Interaction Role Model Programs

- **Sport & Recreation Victoria - *Active Girls Breakfast***

"Active Girls Breakfast" is delivered by Sport & Recreation Victoria (SRV) and targets Year 9 female secondary school students from metropolitan and regional locations throughout Victoria. The aim of the "Active Girls Breakfast" is to encourage young women to have active and healthy lifestyles. The program provides teenage girls with the opportunity to meet and share experiences of elite female athletes and role models at a once-a-year breakfast. The "Active Girls Breakfast" has been delivered annually since 2000 in the state of Victoria.

Type of Evaluation Conducted:

SRV has collated student and role model evaluation forms for all of the "Active Girls Breakfasts" conducted in 2001 and 2002, however, at the time of collecting documentation for this literature review the results of the evaluations were unavailable. The Central Highlands Sports Assembly has made available evaluation results of the "Active Girls Breakfast held" in Ballarat in 2001. The evaluation focuses on the effectiveness of the program based on the questionnaire responses from 69 young females (average age 14years) and 12 female role models (average age 17years).

The majority of the young females indicated that the main message they received from the program was that sporting dreams are always achievable. The breakfast also had a positive effect on encouraging participation in physical activity with young females reporting that they would increase their participation in sport,

encourage friends to be more active, focus on the positives or remain involved in sport. The role model evaluation revealed that the breakfast was a good idea as it reinforced the importance of being physically active.

- **Womensport & Recreation Victoria - *Active Achievers Program***

Womensport & Recreation Victoria's "Active Achievers Program" targeted young female secondary school students from Years 10 – 12. The program aimed to create an awareness of secondary school female students of careers in the sport and recreation sector. Women working in the professional areas of sport and recreation were used to speak in schools about their careers to students in metropolitan and regional areas in Victoria. The program commenced in 1991 and concluded in 2001 due to funding cuts.

Type of Evaluation Conducted:

In the initial stages of the "Active Achievers Program", an evaluation report was prepared to outline the level of participation in the program. However, due to annual funding cuts, the program evaluation was not maintained beyond 1994.

The 1993 and 1994 evaluations of the program provides limited information from evaluation forms completed by teachers. The information gathered was recognised as having limited value in determining the effect of the program and recommendations were made to conduct a qualitative research project using interviews with program participants to be conducted. However, this did not occur and the program was not evaluated for its remaining years beyond 1994.

8.3.2 Development of Supportive Relationships

- **Sport & Recreation Victoria - *Mentor as Anything Program, Victoria***

The "Mentor as Anything Program" has been developed by the Australian Sports Commission and was implemented into Victoria by Sport and Recreation Victoria (SRV) in 2001. The "Mentor as Anything Program" is a long-term program that focuses on the development of supportive relationships. The program aims to develop mentoring relationships that assist women in the sport and recreation industry to be more effective in their current roles and develop their careers in sport and recreation.

Type of Evaluation Conducted:

At the time of writing this literature review, SRV has not conducted an evaluation of the Victorian "Mentor as Anything Program".

8.4 Koori Youth

8.4.1 Minimal Interaction Role Model Programs

- **Sport & Recreation Victoria - *Indigenous Sport and Recreation Program***

In the past, a role model program using Aboriginal AFL players was delivered as part of the "Indigenous Sport and Recreation Program" to encourage the Koori community to participate in sport and recreation. This was a minimal interaction program conducted by Sport and Recreation Victoria involving one-off visits by Aboriginal AFL players to Koori communities. A similar program is now delivered by VAYSAR funded by ATSIC.

Type of Evaluation Conducted:

No evaluation has been conducted by SRV or VAYSAR on the impact of the program.

8.4.2 Development of Supportive Relationships

- **Whitelion Juvenile Justice - *Whitelion Sports and Recreation Program***

The Whitelion Juvenile Justice-Parkville Centre developed the "Whitelion Sports and Recreation Program" as a long-term role model interaction program that focuses on the development of supportive relationships in Koori youth. The program used high profile sports people (AFL players) as role models to deliver sporting activities for Whitelion Juvenile Justice clients.

Type of Evaluation Conducted:

Charles Sturt University conducted an evaluation of the "Whitelion Sports and Recreation Program" as part of a larger study of the Juvenile Justice Centre in 2001. The evaluation found that 86.6% of the 30 young people surveyed expressed strong feelings of satisfaction towards the program. An interview with

the role models found that 100% of them expressed a very positive attitude towards the program and its capacity to engage young people in the target group.

A major benefit of the program indicated that the youth could relate with the role models at the Juvenile Justice Centre and were given a sense of great importance when the role models acknowledged them outside of the centre's environment at sporting events. A further positive outcome of the program identified young people having access to opportunities that go beyond the realms of normal experiences. These included meeting AFL players before and after games, access to the change rooms, and in one case sitting in an AFL coaching box during a game.

The evaluation also found that the young people valued the role models spending their free time with them as a real advantage, with the role models treating them as people not at criminals. The youth were especially enthusiastic when they met the role models in an environment beyond the Juvenile Justice Centre and the role models recognised them and acknowledged their presence.

Another indication of the success of the program was that the youth responded positively to the sport role models by demonstrating friendly and cooperative behaviour during the program. It was found that the most important factor in regards to the role models was their ability to talk with the young people and demonstrate a genuine interest in their welfare.

The evaluation of the "Whitelion Sports and Recreation Program" suggests that the program is a successful model in increasing the participation levels of Koori youth. Both the youth and the role models expressed positive attitudes to the program and mentioned many beneficial aspects that the program included.

Comments by the Program Coordinator regarding the benefits of the program for the Koori youth at Whitelion Juvenile Justice Centre has resulted in:

- dramatic increase in their participation in sport;
- encouragement of their enthusiasm, comradeship and team work; and
- an increase in overall self-esteem.

8.5 Older Adults & Disability

8.5.1 Minimal Interactive Role Model Program

- **Sport Focus – Activity Ambassador Program**

Sports Focus (Loddon Campaspe Sports Assembly) conducts the "Activity Ambassador Program" that uses ambassadors all over the age of 50 to speak about the benefits associated with being physically active to groups based in the Bendigo region. The ambassadors act as role models for their peers and promote the importance of an active and involved lifestyle for people over 50 years of age. Sports Focus conducts a similar program (Sports Focus AAA Ambassadors) which targets people with disabilities.

Type of Evaluation Conducted:

Sports Focus has not conducted an impact evaluation of the "Activity Ambassador Program" or for the "AAA Ambassador Program" due to limited funding capacity. The extent of evaluation has been based on recording the locality and number of bookings, and number of participants attending the talks. An internal process evaluation is conducted by Sports Focus reviewing both programs annually.

8.6 Conclusion

It has been clearly demonstrated by the examples of sport role model programs reviewed in this section, the majority of the programs have no formal evaluation process in place to ascertain the level of impact their role model programs have on sports participation. The level of evaluation that is conducted by the organisations tends to be limited to collecting feedback on the performance of the role model and the general organisation of the program. During the consultation with the organisations, most indicated they were interested to know the level of impact their programs were achieving. However, due to the limited funding capacity the organisations were unable to conduct an evaluation beyond collecting basic information.

Based on the two role model programs that have been evaluated in more depth, both were found to be highly successful and effective programs that have had some influence in regards to increasing participation in sport. Although some caution needs to be taken due to the limited evidence, it would appear based on the findings of these two programs, longer-term role model programs have merit and should be further explored in more detail.

9. OVERALL CONCLUSION

Despite the limited amount of evidence available to support the commonly held belief that sports role model programs have a demonstrable positive effect on the community, a number of issues became apparent during the review process.

- It is critical that role model programs be seen as a continuum from a single exposure to a long term mentoring approach and that it is important to clearly define the type of program being proposed.
- There is ample theoretical evidence to support the idea for conducting role model programs.
- Role model programs should be seen to encompass parents, teachers and other significant adults as well as celebrities and sports people.
- Role models are not always positive; they can be seen to promote negative social images, beliefs and behaviours. This can apply equally to teachers (particularly physical education teachers) and parents as it can apply to celebrities and athletes.
- There are significant gender differences in the way athletes are viewed as role models, with males being more likely to identify with successful athletes while females tend to identify with parents.
- The most effective role model programs are those that focus on developing a long term, mentor relationship particularly for individuals from socially disadvantaged groups and "at risk" groups.
- Industry based programs such as those conducted by the "Beyond Blue" initiative and the Whitelion Juvenile Justice Centre have shown some promising trends to support the involvement of sports role models in working with young people.
- A recently published review by MacCallum and Beltman (2002) has identified the general characteristics of successful role model programs.
- There was a lack of funding for evaluation in program budgets.

It is clear that the capacity of organisations to evaluate their role model programs is limited. These organisations need support and guidance in order for them to be able to undertake meaningful evaluations of their role model programs. There is ample evidence to support the potential for academic based researchers to work in partnership with the sport and recreation along with the welfare industries in order to ensure that the role model programs are evaluated in a useful way.

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Appendix A

Table A1

Search History of Keywords

Sequence of key words		EBSCO Host		Wiley Interscience		ERL Webspirs		Proquest 5000 1999 – present		Proquest 5000 1986 – 1998	
		#	R	#	R	#	R	#	R	#	R
1	Sporting role models	1	1	0	0	1	1	25	1	50	1
2	Role Modelling	36	4	35	0	20	2	16	1	23	3
3	Role models and sport	195	29	2	1	15	14	1	1	3	3
4	Roles models and participation	123	1	5	0	21	1	1	0	9	0
5	Role models and physical activity	39	0	0	0	1	1	1	0	1	1
6	Impact of role models	11	2	7	0	0	0	234	*	0	0
7	Negative role models	0	0	0	0	0	0	0	0	241	*
8	Positive role models	119	2	0	0	11	0	108	*	390	*
9	“Mentoring and sport”	4	0	0	0	10	8	1	1	1	1
10	Mentoring and sport	65	3	0	0	10	0	9	0	17	0
11	Celebrities and sport	526	*	1	0	2	0	0	0	1	0
12	Famous people and sport	5	0	0	0	0	0	0	0	0	0
13	Sport and guest speakers	5	0	0	0	0	0	13	1	5	0
14	Heroes and sport	102	2	0	0	0	0	8	1	13	0
15	Parents and role models	325	6	3	0	48	0	1	1	1	0
16	Role model evaluation	0	0	0	0	0	0	10	1	13	0
17	Program evaluation	11070	*	145	0	4381	0	1	0	0	0
18	Role model programs	6	0	1	0	0	0	16	4	23	0
19	Stereotype	7000	*	465	0	166	0	0	0	0	0
20	Sport stereotype	1	0	0	0	0	0	0	0	0	0
21	Stereotype and sport	0	0	19	0	18	0	0	0	0	0
22	Bundura	0	0	0	0	0	0	0	0	0	0
23	Social learning theory	0	0	0	0	44	0	0	0	0	0
24	Video Modelling	0	0	0	0	3	0	0	0	0	0

: Corresponds to number of articles found.

R : Corresponds to number of articles relevant to the topic.

*: Term used too broad

Appendix B

Table B1

Data Extraction Form

First author	Type of study	Purpose of study	Method	Sample & setting	Important Findings	Critique
2. Jones	Role model identification	To identify trends that have occurred in Sports Illustrated	Analysis of sports illustrated articles. Content analysis	3 issues from each year over period in print 132 issues/ 5874 adds SPORT	95.6% of ads contained male athlete endorsers. Caucasians dominated athlete endorsements/ lacked racial diversity. Lack of female role models	
3. Ewens	Role model identification	To sample young Aust's heroes to determine which sports they most liked to play and to assess their future aspirations as an athlete	Questionnaire	450 school kids 10 – 14 years 288 males 211 females SPORT	Sportsmen were identified significantly more often than sportswomen as role models. Male sports were much more popular than female sports. Females chose athletes as role models much less frequently than males. Family member rated higher by females	The time of the year had a major impact on the results . eg it was cricket season and a lot of cricketers were id as role models
4. Lough	Sports Participation Mentoring and coaching	Examine the role that mentoring could have in helping female athletes become leaders in their sports through coaching	Opinion	Women And Coaching SPORT	Substantial barriers remain for women in sport leadership. Lack of female coaches to act as role models/ mentors to get women into coaching	Opinion piece, no real substance or back up evidence.
5. Weiss	Motor behaviour	To examine the effects of peer coping and mastery models on children's motor performance and psychological responses in swimming	Experimental. 2 conditions and a control group p 382	24 kids, ave age of 6.2 years. Swimming SPORT	A modelling intervention combined with swimming lessons is a more effective behaviour change agent for fearful children than swimming lessons alone.	Small sample size. Large within group variability

VicHealth

*Sports Role Models and their Impact
on Participation in Physical Activity:
A Literature Review*

