Victoria University

Faculty of Arts, Education and Human Development

School of Sport and Exercise Science

Sport and Culture Group



RESEARCH DIGEST

Volume 1 issue 4

June-July 2010

Welcome

The **Sport and Culture Group** (SCG) is a collaborative group of scholars based in the School of Sport and Exercise Science at Victoria University. The unifying aim of the Group is its desire to advance the critical understanding of sport through individual and collaborative research projects that explore the role of sport in local and global communities. The work of Group members is multi and crossdisciplinary, with the base disciplines being economics, history, philosophy, management and sociology. These disciplines not only drive the operation of many of the School's research projects, but also underpin areas of postgraduate supervision.

SCG hosts international conferences and local seminars, and promotes informed discussion on sport issues and policies. SCG also provides forums for commentary and debate through its *Bulletin of Sport and Culture* and its *SCG Research Digest*.

The **SCG Research Digest** contains succinct reviews of scholarly journal articles that examine aspects of sport, leisure and recreation. The reviews address research that adds new and valuable knowledge to the field, and covers both theoretical and empirical studies. Special attention is given to: career development in sport and recreation, community sport, participation and social inclusion, football studies, global sport, nation building and the Olympic movement, identity, sexuality, and gender studies in sport and recreation, corporate sport, policy and regulation, sport and consumption, disadvantage and social justice in sport and recreation, and sustainability. Welcome to volume 1: issue 4.

Publication details

The *SCG Research Digest* is a publication of Victoria University's **Sport and Culture Group.** It is supported by a grant from the School of Exercise and Sport Science. COPYRIGHT for material published in the Digest remains with the Sport and Culture Group. The editor for 2010 is Bob Stewart.

Editor's note

Each issue of the *SCG Research Digest* has themed sections that focus on specific aspects of sport, leisure and recreation research. In this issue the prevalence of drug and alcohol use use in the sport and fitness sector is examined. We welcome reader feedback, and will be delighted to receive reviews and commentaries for publication. The next issue of the *SCG Research Digest* is scheduled for August 2010. The editor can be contacted at <u>bob.stewart@vu.edu.au</u> or phone 9919 4350.

Drug and alcohol use in sport

Introductory note:

Sport has many socially valuable attributes. It gives people enormous pleasure, whether it is a day at the MCG watching a game of cricket or football, or alternatively, playing a game of social tennis at a local recreation reserve. It also provides an opportunity for young people to undertake physical and mental challenges, and in doing so, consolidate their physical and mental toughness. It is also supposed to build character, improve decision making, and enhance leadership capabilities. It is seen to be tool for preventing juvenile crime, and is also often associated with improved academic results. Sport is therefore viewed by many of its proponents as the panacea for most our social problems.

So, it should logically follow that sport participation is the solution to indiscriminate and excessive drug use. There are some good intuitive reasons why this may be the case. In the first place, sport is supposed to b e about making fit and athletic bodies, and since drug use poisons the body, it is the antithesis of healthy sport practice. Moreover, sport is about discipline, while drug use mirrors a lack of discipline. Sport is also organised by responsible adults, and this means that young people playing sport are more appropriately supervised, and guided along the right moral path. Finally, since sport has its own intrinsic and deep-seated pleasure, the quick and superficial 'highs' delivered by drugs provide a completely inferior experience. Therefore, the committed player and athlete will have no interest in these sorts of substances.

Unfortunately, the studies described below do not support the view that sport is an antidote to drug use. If anything, they say the opposite.

Review 1:

M. Uvacsek, T. Nepusz, D. Naughton, J. Mazanov, M. Ranky and A. Petroczi (2009) Self-admitted behaviour and perceived use of performance-enhancing versus psycho-active drugs among competitive athletes, *Scandinavian Journal of Medicine and Science in Sports*, 10(?)1-11.

This study focussed on the attitudes and behaviours of 82 competitive athletes from Hungary The average of the informant group was 21 years, while 45 percent were female (3). The data was collected via a questionnaire. The survey had three parts to it. Part 1 involved an analysis of usage levels for performance enhancing drugs (PEDs) and an analysis of so-called recreational drugs (RDs) which for the most part are illicit. Part 2 involved the testing of the proposition that users of specific drug categories would overestimate the total community usage of the drugs they take themselves, and would underestimate the total community usage of the drugs they do not take. This idea conforms with the assumption that underpin the false consensus effect (FCE) associated with social projection bias. Part 3 looked at the extent to which either PED use or RD use was translated into the holding of favourable attitudes to substance use in general.

The results provided very clear answers to the above questions. First, they showed that 15 % of all athletes had used some type of performance enhancing drug (PED) at some time during their

sporting career. The results also indicated that 32% of the 82 athletes surveyed had use some type of recreation drug (RD) during the sporting career. According to Uvacsek and her colleagues, this was considerably higher that the results coming out of the drug testing of athletes, where the positive test ratios average out at around 2% (1).Second it was also found that PED users overestimated the overall use of PEDS when compared to non-users, where the figures were 34% and 17% respectively (5). The same sort of outcomes applied to the estimates of total use of RDs, where users believed the total usage level would be nearly 47%, whereas non-users reckoned the total usage would be no more than 40% (5).A far as attitudes to drug use were concerned, the most permissive attitudes to PEDs were held – not surprisingly - by PED users, while the least permissive were those athletes who took neither PEDs nor RDs. It was also noted informants for the most part sharply distinguished between PEDs and RDs, which meant that high usage of RDs could not be logically translated into a subsequent increases in PED use. According to the researchers this was a good thing (8).

Prepared by Bob Stewart

Review 2:

Stephen Peck, Mina Vida and Jacquelynne Eccles (2008) Adolescent pathways to adulthood drinking; sport activity involvement is not necessarily risky or protective, *Addiction*, 103, 69-83

Stephen Peck, Mina Vida and Jacquelynne Eccles were keen to find out what factors and incidents during early adolescence were likely to cause American teenagers to subsequently engage in heavy levels of alcohol use in early adulthood. Previous studies had identified parental education, family and peer behaviour, delinquent behaviour, dropping out of high school, and aggressive behaviour as probable precipitating factors (69). In addition sport participation was frequently cited as an antidote to undisciplined alcohol and drug use in later life. As part of the mythology of sport practice, it was claimed that by providing wholesome "extra curricular activities" giving more opportunities for interaction with "positive peers" and encouraging healthy physical development, sport would provide a "protective" screen against anti-social behaviour in general, and heavy alcohol use in particular (70).

In order to shed more light on these claims, Peck, Vida and Eccles decided to undertake a longitudinal study of American teenagers using data from the Michigan Study of Adolescent Life Transitions, or MSALT as it was more commonly known. This study began in 1983, when the informants were in grade six, and continued until 2001 when a majority had reached the age of 28 years. Around 1000 sets of data were examined by Peck, Vida and Eccles.

Peck, Vida and Eccles found that there was an occasional relationship between sport participation at high school and heavy drinking in early adulthood, but it was quite conditional. On one hand, adolescents who played sport and who consumed below average levels of alcohol during this period were less likely to become heavy drinkers in early adulthood (79). On the other hand, those sporty adolescents who also consumed above average amounts of alcohol during this period were more likely to become heavy drinkers during early adulthood (79). At the same time, the risk of heavy

5 | Page

drinking was hightened when a constellation of factors were at work. The group most likely to engage in heavy and consistent drinking early adulthood were those people who had not only played sport as teenagers, but had also used other drugs and engaged in moderately aggressive behaviour at home and school.

Prepared by Bob Stewart

Review 3:

Tove Wichstrom and Lars Wichstrom (2008) Does sport participation during adolescence prevent later alcohol, tobacco and cannabis use? *Addiction*, 103, 69-83

Tove Wichstrom and Lars Wichstrom wanted to find out if sport participation in adolescence did in fact provide protection against subsequent alcohol use, particularly when they enter adulthood. They initially noted that previous studies had found a negative relationship between sport participation as adolescents and the development of problem behaviours like criminal activity and "precocious sex' (138). They also conceded that since sport competitions require a lot of training and preparation, young people in this type of setting may not have the time or inclination to engage in heavy drinking, and carry on that behaviour into adulthood. On the other hand, they were also aware of the fact that sports provide strong social networks for participants, and sets them up for additional exposure to older players who may seduce them into world of heavy drinking and related behaviour (139).

Wichstrom and Wichstrom decided to seek clarification of this rather fuzzy set of relationships by undertaking a longitudinal study of Norwegian teenagers. They used the data from a national survey of just over 3000 high school students that tracked them from 1992 to 2006. During that time the informants were asked to advise on their sporting and social practices, which included alcohol and drug use. They found that sport participation as adolescence did in fact predict the "growth of alcohol intoxication" (146). This was especially evident in team sports, where early involvement led to a significant increase in alcohol intoxication. On the other hand, early involvement in endurance sports led to a reduced growth in alcohol intoxication (146). The study also found that early sport participation was associated with low levels of cannabis use, especially for those informants who played team sports.

While the results of this study were very illuminating, Wichstrom and Wichstrom warned that (1) these results should not be used to establish causality, and (2) they do not include data that relates to overall levels of physical activity.

Prepared by Bob Stewart

Review 4:

Jason Ford (2007) 'Substance Use Among College Athletes: A Comparison Based on Sport/Team Affiliation", *Journal of American College Health*, 55 (6) pp.367-373.

A recent study by Jason Ford aimed to find out if North American college students who were members of sports teams used alcohol and other substances more freely than those who were not. A number of previous studies had shown slightly higher levels of substance use amongst college athletes. Ford used data from the 1999 Harvard University School of Public Health study into alcohol use amongst American college and university students (368).

Ford found that whereas 49% of male non-athletes reported engaging in binge drinking, it was 54% for athletes. The same situation applied to females, with 29% of non-athletes reporting binge drinking, the figure for athletes was 39%. On the other hand, male athletes had lower cannabis and illicit drug use of 26% and 12% respectively, compared to 31% and 16% for non-athletes. Ford also found different usage rates for different sports. For example, whereas 75% of ice hockey player reported some form of binge drinking, it fell to around 41% for track athletes and runners. Reported cannabis use also varied between sports, with a usage rate of 39% for ice hockey players, but only 19% for basketballers. Similar differences emerged for females, with 47% of soccer players reporting binge drinking, but only 27% of runners gave a positive response. Ford provided a number of detailed tables which provided a detailed picture of usage levels for different sports. They are compiled below, with all figures being a % of categories listed at top or columns.

Type of sport team	Binge drinking by males	Binge drinking by females	Cannabis use by males	Cannabis use by females	Other illicit drug use by males	Other illicit drug use by females
Football	58		26		15	
Volleyball	48	40	24	25	15	12
Soccer	47	47	25	38	16	23
Aquatic	54	29	30	17	11	5
Basketball	50	37	19	23	9	9
Hockey	75		39		19	
Base(soft)ball	65	38	27	27	13	12
Running	41	27	16	24	10	12

Source: Ford (2007) p.370.

Ford concluded that not only had his study shown that college athletes on average use substances more often than non athletes, but there are also significant variations amongst different sports, with the highest levels being amongst male (ice) hockey players and female soccer players. By contrast the least at-risk groups were basketballers and cross-country runners (372).

In explaining the greater propensity of college athletes to use substances, Ford reckoned that it may be due to (1) the stress created by having dual role as both student and competitive athlete, (2) the social isolation that comes from spending so much time in the cult-like atmosphere of a sports team, (3) the problems that come from being injured, (4) the concerns that comes from managing multiple relationships, and (5)team cultures and social norms that produce a play-hard, party-hard ethos, which consequently encourages binge drinking and substance-use experimentation (368, 372).

Prepared by Bob Stewart

Review 5

Perikles Simon, Heiko Striegal, Fabian Aust, Klaus Dietz, and Rolf Ulrich (2006) Doping in fitness sports: estimated number of unreported cases and individual probability of doping, *Addiction*,101 1640-1644

This study by Perikles Simon and his four research associates examined the reported usage levels of a range of drugs in a sample of fitness centre members from 49 gyms scattered around Germany. A total of 500 informants were interviewed using a randomised response technique, or RRT as it is commonly called (1641). RRT involves asking informants to respond to a range of both sensitive- in this case, drug related - questions on one hand, and innocuous – for example, their parent's residence- on the other hand. This procedure aims to give space for informants to answer honestly instead of self censoring in order to avoid embarrassment or not to disappoint the interviewer. Of the 500 centre users interviewed, 69% were male, while 71% were not married. Just under 59% of informants were training to improve fitness, 25% were weight training, while the remaining 16% saw themselves as bodybuilders.

Using the RRT approach they found that 13% of informants had used anabolic androgenic steroids (AAS), 41% had taken illegal drugs, 15% had used cocaine, 28% had smoked cigarettes, while 64% had consumed alcohol. In the case of illegal drugs and cocaine, these numbers were far higher than the results secured in a previous survey-come- questionnaire they administered, which were 16%

and 5% respectively (1642). While the AAS figure was relatively low when compared to illegal drugs and cocaine, and most certainly alcohol, it was much higher than previous North American and European studies, which indicate usage levels/rates of 5%-10% only. On balance, Simon and his colleagues found the results "alarming" (1360) and indicative of an acute problem (1644). They concluded that "prevention and intervention programs against doping may therefore benefit from specifically targeting fitness centre visitors" (1360).

Prepared by Bob Stewart