Experts’ Opinions on Anabolic Androgenic Steroid Policy Design for High School Sports

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Governance Abstract 2010-079
June 4, 2010 8:30 AM 25-minute oral presentation (Cormorant)

Sport administrators and policy makers are tasked with developing effective and efficient policies to deter anabolic androgenic steroid (AAS) use. While AAS use by athletes is not a new phenomenon, recent cases involving famous athletes (e.g., Alex Rodriguez, Marion Jones) have garnered media and political attention. Subsequently there is a growing perception with the American public that more and more athletes are using AAS to gain a competitive advantage (Becker & Scheufele, 2008). President Bush addressed AAS use in his 2004 State of the Union speech where he emphasized the need for professional athletes to be positive role models for young Americans. Inevitably, policy makers and legislatures turned their attention to AAS use and high school (HS) athletes.

HS athletes are more likely than adults to engage in risky behavior (Reyna & Farley, 2006), to be tempted to use AAS (Miller et al. 2005), and to continue to use AAS (Wichstrom, 2006). Moreover, this age group is more prone to negative psychological side effects from AAS use (Grime, Ricci, & Melloni, 2006). In addition, physiological side effects include premature closure of growth plates, which prevents HS athletes from reaching their potential full height (Anderson, & Bolduc, 1997). Numerous other side effects reported include liver damage, unhealthy blood lipid profile, gynecomastia, testicular atrophy, and acne (Hartgens & Kulpers, 2004). These health concerns coupled with increased media and political coverage prompted legislatures to act. While there have been educational programs that target AAS use among HS athlete since the 1990’s (e.g., ATLAS), the perceived magnitude of the problem moved lawmakers to consider more drastic action.

In 2006, New Jersey became the first state to pass legislation requiring statewide AAS testing of HS athletes. Florida, Texas, and Illinois instituted AAS testing programs shortly thereafter. These programs were initially welcomed, however they yielded a combined 20 positive tests from 30,799 tests and were thus widely criticized. Advocates of AAS testing argue these results show that testing is an effective deterrent to AAS use. However, these programs are costly and subsequently were discontinued or had their budgets severely reduced. Thus sport policy makers are left with a dilemma. Current testing programs appear cost prohibitive with questionable effectiveness, yet the issue of AAS use by HS athletes is still present, and may escalate. One approach to address this type of issue, where there is incomplete knowledge on the right course of action, is to seek expert consensus. The purpose of this study was therefore to determine expert consensus on the requisite components for addressing AAS policy and HS athletics.

This study used the Delphi technique, a group consensus method, which consisted of three rounds of questionnaires administered to leading experts in the area of AAS use. This method has previously been used with policy analysis (Steyaert & Lisoir, 2005) and health-related issues (Vernon, 2009). Experts were invited based on having a) worked at the executive level in anti-doping organizations, b) researched and published in peer-reviewed academic journals on AAS use in sport c) worked as senior medical personnel in sport, d) been involved in legislation or policy to corral AAS, or e) been involved in publicly advocating AAS use. Seventeen experts from a variety of backgrounds agreed to participate in the study to create a heterogeneous panel. With policy issues it is considered appropriate to have a heterogeneous group as this enables greater understanding of the issue (Vernon, 2009). Questionnaires were designed to solicit information on the current and future magnitude of AAS use by HS athletes, and to discuss current and future approaches to AAS policy.

The majority opinion from the panel was that AAS use by HS athletes is underestimated. Recent reports have suggested that AAS use has declined over the last five years with approximately 2.2% of HS students ever having tried AAS (Johnston, O’Malley, Bachman, & Schulenberg, 2008). In contrast, the panel estimated usage to be between 5-10%. Furthermore, the panel estimated that AAS use would increase by a small degree over the next five years. Of concern to the panel was the type of AAS used by HS athlete. UnSophisticated versions of oral AAS were estimated to be the dominant type used. These types of AAS are associated with liver damage. Also, the prevalence of supplements tainted with AAS was noted. This could lead to more positive tests, which would potentially mean sanctions imposed on an athlete who did not knowingly cheat.
The panel was in near unanimous agreement that AAS use by HS athletes needs to be addressed. However, the group became polarized regarding the approach to this issue. Whether to include AAS testing was the topic of contention. Proponents of education only initiatives pointed to the success of educational programs (e.g., ATLAS) and the failure of programs that include drug testing (e.g., SATURN). In addition, this group had issue with the costs associated with AAS testing, the potential for false positives, and the erosion of trust that occurs between student and administrator with drug testing. Others argued education, while important, is insufficient. Education only programs were criticized for only measuring intentions, rather than behaviors. Moreover, these experts were extremely skeptical that students would honestly answer questions on such a taboo topic. Advocates of AAS testing also cited examples to show testing to be an effective deterrent. The panelists became entrenched in their positions and were unable to offer many alternative approaches to AAS policy.

The issue of AAS use among HS athletes is deserving of sport policy makers’ concern. In particular, policy makers need to acknowledge that the magnitude of the problem is likely underestimated and expected to get worse. Furthermore, policy makers need to appreciate the health consequences, particular liver damage, associated with the type of AAS used by HS athletes. An emergent issue from the study was the unintended use of tainted supplements – an additional issue that sport managers need to consider when drafting policy. The panel agreed upon myriad educational components that should be included in a prevention program. However, the issue of AAS testing sharply divided the group. This proved to be a contentious issue that was grounded in differing values and experience with athletes and anti-AAS programs. Based on the criticism leveled by panelists for and against AAS testing it may be appropriate for further empirical enquiry and independent evaluation on both education only and AAS testing programs.