**Anabolic Steroid Abuse on Training and Performance**

**Introduction**

The authors appear to have gained a specific motivation regarding new ways of curbing the use of doping substances among professional athletes. It has become a public concern that many adolescents in the field of athletic seek to use doping substances that assist them to achieve the best in their careers (Sagoe et al., 2016). The authors to be more specific on the issue of doping largely put their concentration on the use of anabolic-androgenic steroids that continue to be abused by athletes bearing that such drugs have adverse effects on their health. It is essential to conduct the study just because of the controversy arising with regards to the side effects of using anabolic-androgenic steroids (AAS). In particular, anti-doping bodies tend to focus only on those drug abusers whose body effects are visible without hinting at other users whose bodies appear healthy to be doubted. Undoubtedly, the purpose of the study is self-explanatory. To begin, the research focuses on educating people on the side effects of AAS as well as enforcing them to shun their behaviors related to use of doping substances. Training and nutrition also serve as the best mean for curbing the use of AAS. The participants’ population does not make sense at all. Using 202 participants is not useful in facilitating the quality of the results. Commonly, employment of a small population always leads to reliable conclusions.

**Methods**

From a distance, the method of analysis used in the study to actuate results regarding the use of doping substances among the students looks correct. However, there is a lot to question from the use of a questionnaire as the proposed method of data collection. It is true that the use of surveys is vital in extracting specific information from the participant, but its success solely depends on the topic being addressed. Admittedly, the issue of doping is a very sensitive one, and the study participants are bound to present biased information. That is because it is evident that the use of AAS is illegal therefore most of them cannot attest to have used such drug in fear of arrest and mockery from other students. In the same case, the types of questions presented to the participating students are questionable. For example, the authors go on to ask students whether they have engaged in the use of AAS. Sagoe et al. (2016) posit that, although not all the involved members can give false information, a significant percentage of the responders are bound to present a biased response. The authors could have applied another appropriate method of data collection that would provide a platform for the participants to avail truth to the study without playing around with some sensitive questions presented in the questionnaire.

**Results**

Most of the results evident in the study partly did not make sense. The use of ANOVA as the right means of analyzing results could not assist in gauging the relevance of the results since the method of data collection had already been compromised. For instance, the results indicated that a large percentage of the participant had prior knowledge of the adverse effects of AAS hence suggesting that the use of doping substances in the school environment was minimal. Such a postulation has no basis owing to the earlier discussed shortcoming of using questionnaires to in accessing some sensitive questions. Therefore, even before the study was conducted, one could predict that most of the students would claim to have freed from the use of doping substances. According to Sagoe et al. (2016), there was a commendable increase in strength training self-efficacy from the assessed students, the results that authors support owing to the alignment of such a finding with the already-laid theory. Given a chance, I would not purchase any idea of the study based on the results. That is because the method of data collection is inefficient hence leading to poor results. Employment of a questionnaire remains the only variable contributing to the results obtained. The reasoning behind such a deduction is that when a method of data collection is incompetent, the results or rather the finding would be incompetent and non-convincing as well. In other words, the success of the results obtained from any study primarily depends on the effectiveness of data collection methods.

**Discussion**

The claim brought forward by the authors that most students have better knowledge of AAS and their side effects are a mere fiction. Sagoe et al. (2016) go on to explain that, an excellent understanding about the side effects of AAS remain a protective factor in the youth towards seeking healthy ways of training in a bid to curtail the use of doping substances as far as athletics is concerned. The objection of such dictates comes in to support the fact that most of the participants did not provide correct information owing to the use of questionnaires that attracted lies and biases. On the other hand, the claim that false details by coaches and trainers might trigger the use of AAS by the adolescents is truth in itself. As can be expected, when lies prevail to cover up wonderful information among the youths, it becomes possible for such people to engage in the activity highlighted in what people would call testing the waters. Further studies should put much focus on efficient methods of data collection such as medical testing to facilitate accuracy of the results. In the application of medical examination, researchers should avoid giving a hint to the participants the purpose of the study to prevent resistance.

The use of ANOVA as the method of analysis has its pros. It is the only method capable of yielding directive results, especially when comparing multiple groups. One of the weaknesses of the study is the use of a questionnaire to obtain sensitive information from peers. Another gap evident in the study is the failure of authors to accommodate other athletic professionals in the research to supplement the findings obtained from the students.

**References**

Sagoe, D., Holden, G., Rise, E. N. K., Torgersen, T., Paulsen, G., Krosshaug, T., ... & Pallesen, S. (2016). Doping prevention through anti-doping education and practical strength training: The Hercules program. *Performance Enhancement & Health*, *5*(1), 24-30.