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Usage and Influence of Dietary Supplementation Amongst Adolescent Athletes

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OBJECTIVE

The purpose of this study was to investigate the use of dietary supplements or ergogenic aids amongst high school athletes.

DESIGN AND SETTING

This study contained a survey, administered via Qualtrics, that recruited participants from three high schools in Southwest Ohio. First, a recruiting script/parental consent form was sent by the athletic trainer to the parents/guardians of each student athlete. Surveys were distributed via email from the athletic trainers with a QR code once parental consent was obtained. Independent variables: gender, age, sports played, sources of dietary supplement information. Dependent variable: amount of dietary supplementation used.

PARTICIPANTS

18 surveys were completed, (N=18), 77.8% (n=14) male, 16.7% (n=3) female, 5.6% (n=1) preferred not to answer. 94.4% (n=17) white, 5.6% (n=1) Black/African American. 22.2% (n=4) freshmen, 5.6% (n=1) sophomores, 22.2% (n=4) juniors, 44.4% (n=8) seniors, 5.6% (n=1) did not answer.

INTERVENTION

The survey had 13 questions. Face validity and content validity were established. The study was approved by the Wilmington College Institutional Review Board (IRB). Quantitative descriptive statistics were calculated, T-Tests were analyzed via SPSS. Alpha level $p = .05$ *a priori*.

MAIN OUTCOME MEASUREMENTS

13-question survey using a Likert scale with

multiple choice, "Select All That Apply" and "Fill in the blank" questions.

RESULTS

Hypothesis one, there was a statistically significant difference ($t_{15}=1.13$, $p=.004$) found in the creatine use between male 28.5% (n= 4) respondents vs female 33.3% (n= 1). Hypothesis two, there was a statistically significant difference ($t_{15}=1.53$, $p=.004$) found in the creatine use between underclassmen 0% (n= 0) respondents vs upperclassmen 50% (n= 4). Hypothesis three, there was a statistically significant difference ($t_{17}=1.94$, $p=.07$) the amount of creatine information gained from social media sources (27.8%) and other sources (14.4%). Hypothesis four, there was a statistically significant difference ($t_{15} = -4.5$, $p < .001$) between the amount of protein information gained from coaches (61.1%) vs healthcare providers (15.6%).

CONCLUSIONS

Creatine usage was significantly higher in females vs males and in upperclassmen vs underclassmen. There was significantly more creatine information gained from social media than other sources. There was significantly more protein information gained from coaches than healthcare providers. It appears that most dietary supplement information is coming from social media outlets and coaches vs health care providers. This should be important to athletic trainers, team physicians, and other allied health professionals involved in the sports medicine team. High school athletes should be receiving the most evidence-based information about sports nutrition and how it affects their physical health and sports performance.

KEY WORDS: Dietary Supplements, Adolescents, High School, Creatine, Protein, Nutrition

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