

A. Stors<sup>1</sup>, D. Hatfield<sup>1</sup>, N. Waltz<sup>1</sup>, and M. Delmonico<sup>1</sup>

<sup>1</sup> Department of Kinesiology, University of Rhode Island, Kingston, Rhode Island

## INTRODUCTION

As outdated and incorrect nutritional information may lead to the ingestion of banned substances resulting in a plethora of negative consequences, how athletes are gaining nutritional supplementation information, habits, knowledge, and beliefs of the adolescent population has yet to be determined.

**The purpose of this study was to determine where high school athletes are acquiring their nutritional supplementation information from.**

## METHODOLOGY

One hundred sixty-four Rhode Island high school athletes (49 [30%] female, 113 [69%] male, 1 [1%] gender fluid, 1 [0.61%] unanswered/unknown; 103 [63%] white, 61 [37%] persons from underrepresented backgrounds) between the ages of 14-18 (age: 17±1.19 yrs.) were invited to complete a cross-sectional online survey to assess their sports nutritional supplementation knowledge. Bivariate statistical analysis and logistic regression analysis were used for data analysis with the creation of 11 predictive models with a statistical significance set to a *p*-value of less than 0.05. Adjusted and base odds ratios were calculated for all models.

## RESULTS

Twenty-two percent of participants (n=35) had reported they retrieve most of their nutritional information from the internet. No significance was observed in supplementation behaviors between the use of the internet in conjunction with advice from coaches and teammates or internet in conjunction with advice from parents. However, when the model was adjusted for modifying factors, individuals from underrepresented backgrounds significantly impacted the acquisition of knowledge models of using the internet over parents (*p*=0.018, OR=1.73), coaches and teammates (*p*=0.025., OR=1.48) and professional guidance (*p*=0.022, OR=1.6). In addition, individuals from underrepresented backgrounds were the only significant modifier in using the internet to shape their beliefs on supplements safety, specifically, whether all supplements carry risks (*p*=0.024, OR=1.55), some supplements carry risks (*p*=0.021, OR=1.57) or no supplements is safe (*p*=0.026).

Young athletes rely primarily on the internet for supplement information. This is impacted mainly by persons from underrepresented backgrounds.

## PRACTICAL APPLICATIONS

Nutritional education programs delivered both from a public health and performance standpoint should be delivered through the internet and with the consideration of athletes from underrepresented backgrounds to optimize success. Additionally, coaches and parents should be aware of the methods young athletes are attaining nutritional supplementation information from. High-school athletes should be exposed to sources of nutritional supplement information that are driven by science and fact. Nutritional professionals should develop nutrition education programs that are sensitive to individuals from differing backgrounds.

FIGURE 1. SOURCE OF NUTRITIONAL INFORMATION

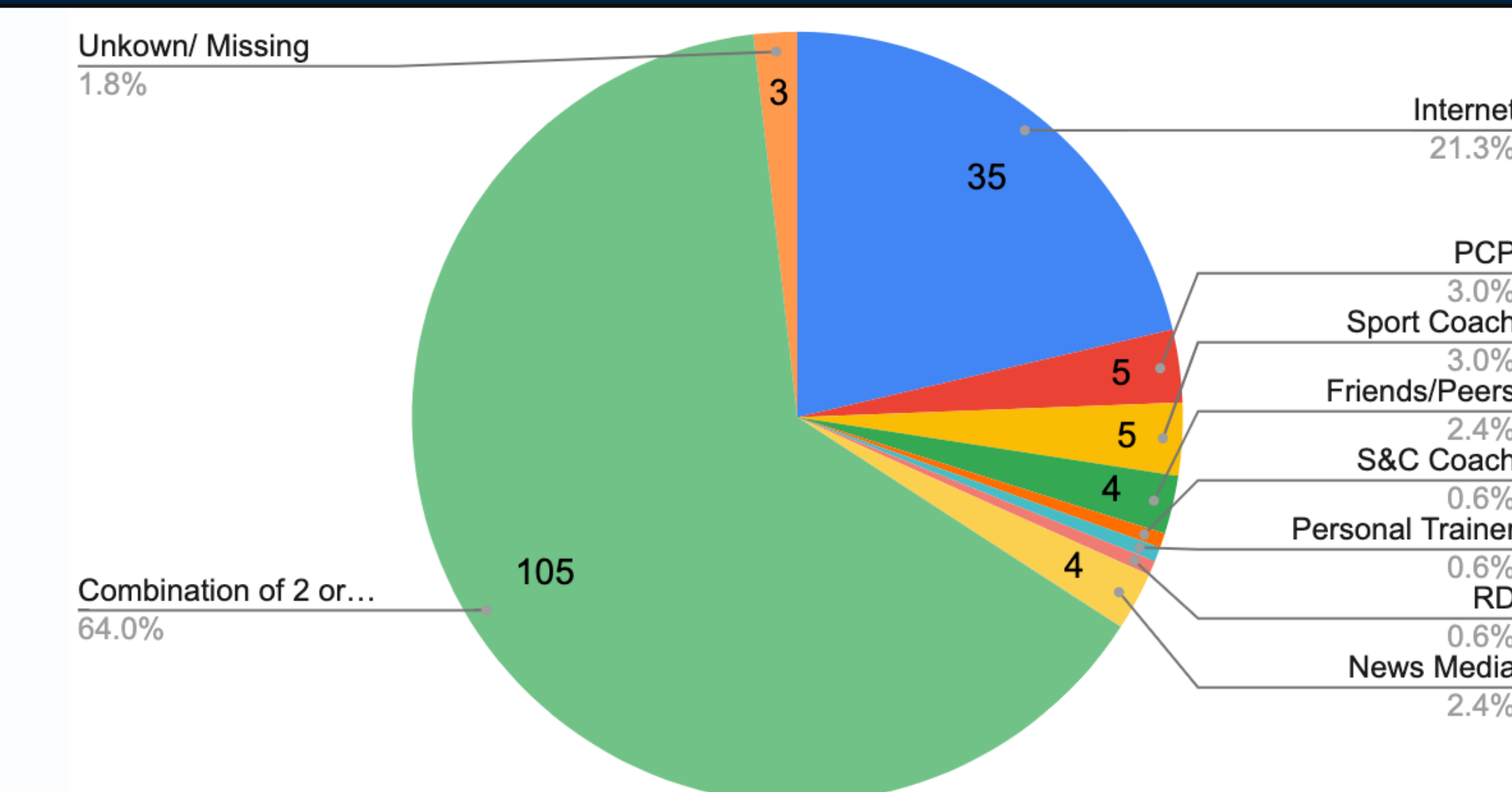


TABLE 1: LOGISTIC REGRESSION SUMMARY

	P value via Chi Squared			Odds Ratio		
	Total Effect of All Factors	Caucasian	Persons from Underrepresented Backgrounds	Total Effect of All Factors	Caucasian	Persons from Underrepresented Backgrounds
Internet vs On Label	0.043	0.31	0.031	2.0	1.84	1.39
Internet vs Professional Guidance	0.47	0.22	0.022	7.58	2.23	1.6
Internet vs Parents	0.036	0.35	0.018	2.16	2.14	1.73
Internet vs Own Research	0.043	0.23	0.033	2.07	1.87	1.35
Internet vs Coaches and Teammates	0.13	0.24	0.025	1.82	2.06	1.48
Internet vs Manufacturer websites	0.3	0.19	0.022	1.82	2.06	1.48

## CONCLUSIONS

The results of this study suggest young athletes are choosing the internet to get their knowledge acquisition and beliefs about supplementation safety and that this result is primarily impacted by persons from underrepresented backgrounds.

## ACKNOWLEDGEMENTS

The Clean Competition Grant from the Rhode Island Foundation..

## REFERENCES

1. Starr RR. Too Little, Too Late: Ineffective Regulation of Dietary Supplements in the United States. Am J Public Health. 2015 Mar;105(3):478–85.
2. Maughan RJ. Nutritional ergogenic aids and exercise performance. Nutr Res Rev. 1999 Dec;12(2):255–80.