



Dietary Supplement Attitudes and Behaviors in the Personal Training Profession

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INTRODUCTION

Dietary supplements are a growing multi-billion dollar industry and are used for health, performance, and disease prevention reasons. However, due to a lack of FDA regulation, there are concerns with the safety and efficacy of many dietary supplements. Exercise professionals and personal trainers are in a position to educate the public on dietary supplements; however, it is unknown how exercise professionals and personal trainers approach this topic personally and professionally. The purpose of this study is to better understand behaviors and attitudes of personal trainers with respect to dietary supplements.

DEFINITION OF DIETARY SUPPLEMENT

Dietary supplements are defined by the 1994 Dietary Supplement Health and Education Act (DSHEA) as: “a product (other than tobacco) intended to supplement the diet that bears or contains one or more of the following ingredients: a vitamin, a mineral, an herb or other botanical, an amino acid, a dietary substance for use by man to supplement the diet by increasing the total daily intake, or a concentrate, metabolite, constituent, extract, or combinations of these ingredients” and “are intended for ingestion in pill, capsule, or liquid form, cannot be represented for use as a conventional food or as the sole item of a meal or diet, and must be labeled as a ‘dietary supplement’” (USFDA, 2010).

METHODS

The first step of this research was to create an instrument by conducting a literature review on supplements in the personal training profession and a review of existing instruments. The instrument included demographics, questions relating to both personal and professional behaviors, and attitudes toward dietary supplements. Once the instrument was created, it was pilot tested on a group of 5 personal trainers and fitness experts, revised, then disseminated to a larger sample. The survey was posted online and shared through social media and personal training forums and websites. Results of the survey were analyzed using SPSS 22.0.



https://expertbeacon.com/sites/default/files/before_buying_dietary_supplements_follow_this_advice.jpg

RESULTS

Participants (n=47) ranged in age from 22 to 62 with $M = 39.13$ and $SD = 10.12$ (60% female and 40% male). The years of experience ranged from 3 months to 10.3 years ($M = 3.7$ years). Most had a college education (some college n=5, bachelor's n=20, master's n=12). The majority (47%) have a degree in Exercise Science and 49% said that they had college courses that discussed topics related to dietary supplements ($M = 10.8$ hours of instruction) where the most discussed topics included vitamins/minerals, regulations, and safety. A majority (83%) had at least one nationally recognized certification and 29% had 2 or more. Of the participants, 33 currently take supplements, 5 have taken them in the past, and 7 do not take them at all. Major sources of supplement information were scientific journals (n=25), internet (n=20), textbooks (n=15), and friend recommendations (n=14). When asked about supplements and their clients, 67% responded that they never or seldom recommend/prescribe supplements. The most cited reason for recommending supplements was to benefit the client and the most cited reason for not recommending supplements was scope of practice issues. Most participants believed that registered dietitians and medical doctors are qualified to recommend dietary supplements (83% and 62% respectively) but only 28% believe that personal trainers are qualified to recommend supplements.

Highest Rated Knowledge		Lowest Rated Knowledge	
Protein powders	$M = 3.85$	Prohormones	$M = 2.10$
Vitamins/minerals	$M = 3.75$	Herbals	$M = 2.28$
Pre-Workout	$M = 3.60$	Probiotics	$M = 2.90$

How Knowledgeable do you feel about the following dietary supplements?
Scale: 1-Not at all knowledgeable, 2-Aware of but do not know much about, 3-Limited/some knowledge, 4-Knowledgeable, 5-Very knowledgeable

Highest Rated Safety		Lowest Rated Safety	
Fish oil	$M = 4.15$	Weight loss	$M = 2.44$
Vitamins/minerals	$M = 4.10$	Energy supplements	$M = 2.46$
Probiotics	$M = 3.75$	Prohormones	$M = 2.57$

Rate your opinion of the safety of the following supplements.
Scale: 1-Very unsafe, 2-A little unsafe, 3-Neutral, 4-Pretty safe, 5-Very Safe

Highest Rated Efficacy		Lowest Rated Efficacy	
Probiotics	$M = 3.87$	Weight loss	$M = 3.03$
Fish oil	$M = 3.86$	Herbal	$M = 3.08$
Protein powders	$M = 3.79$	Weight gain	$M = 3.15$

Rate your opinion of the effectiveness of the following supplements.
1-Very unsafe, 2-A little unsafe, 3-Neutral, 4-Pretty safe, 5-Very Safe

REFERENCES

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DISCUSSION

The majority (n=33) of trainers said they currently take supplements, however, twenty-nine said they never or seldom recommend/prescribe them to clients. Although their personal behavior reflects the use of supplements, they may be more conservative when it comes to recommending them to clients. This could be due to the trainer's perceived scope of practice, lack of necessity, or fear of legal repercussions.

Trainers were asked what type of supplements they personally consumed and the three top categories included protein, vitamins/minerals, and fish oil. These categories were also among the top rated in knowledge, safety, and effectiveness. Personal trainers may use personal experience and anecdotal evidence as a way to determine which supplements are most appropriate for themselves and their clients.

Overall, this group of personal trainers was educated with the majority holding one or more certifications. There is a need to sample a variety of trainers including those who do not hold certifications or have health-related degrees. Future posts should focus on general personal training sites and forums.

The small sample size does not allow for generalizations in this population. This is an ongoing project and this sample should be viewed as preliminary data.

Category	p	Take supplements Mean (SD)	Do not take supplements Mean (SD)
Efficacy of Weight Gain	.019	3.29 (0.81)	2.25 (0.50)
Safety of Energy	.035	2.63 (1.00)	1.67 (0.82)
Safety of Weight Loss	.043	2.56 (0.98)	1.67 (0.82)
Safety of Weight Gain	.017	2.90 (0.79)	2.00 (0.89)
Safety of Preworkout	.017	2.91 (0.99)	1.83 (0.75)
*Recommend Fish Oil	.007	2.44 (1.22)	1.00 (0.00)
*Recommend Protein	.014	2.59 (1.13)	1.33 (0.82)

Differences in responses between personal trainers who take supplements (current or past) and those who do not take supplements. Independent t-test significant values for effectiveness, safety, knowledge and recommendations. Alpha set at .05 a priori.
*How often do you recommend dietary supplements?
Never =1, Seldom = 2, Sometimes =3, Often =4, Almost Always = 5

Category	p	Females Mean (SD)	Males Mean (SD)
Knowledge Protein	.036	3.63 (0.88)	4.19 (0.65)
Knowledge Probiotics	.039	3.17 (0.96)	2.50 (0.97)
Knowledge Energy	.015	2.88 (1.23)	3.81 (0.98)
Knowledge Weight Gain	.005	2.88 (1.23)	3.81 (0.98)
Knowledge Creatine	.004	3.00 (1.14)	4.00 (0.73)
Effectiveness Probiotics	.001	4.08 (0.65)	3.53 (0.74)
Safety Probiotics	.020	4.08 (0.72)	3.25 (0.68)

Differences in responses between female and male personal trainers. Independent t-test significant values for effectiveness, safety, knowledge and recommendations. Alpha set at .05 a priori