

## Dietary Supplements: Usage And Opinions Among Health Sciences Students

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**Abstract:** This is a questionnaire survey of dietary supplement usage among students in the International Medical University. Just over two-fifths of these students reported using dietary supplements daily. This high usage of dietary supplements is in contrast their expressed ambivalence about these products.

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### Introduction

Usage of dietary supplement among Malaysians is prevalent but there are only a few published reports.<sup>1,2</sup> As healthcare practitioners, nurses, pharmacists and medical doctors are in a position to provide unbiased and evidence-based health information for the consumers. We report a survey of health sciences students in a Malaysian university to determine factors associated with dietary supplement usage.

### Methods

This is a cross-sectional self-administered questionnaire survey of medical, pharmacy and nursing students in International Medical University (IMU). The questionnaire was developed based on literature review,<sup>3-5</sup> but we take into account dietary supplements commonly used in the local setting. It requests students to report daily use of 43 dietary supplement usage (Table 1), self-reported health, and health problems. For simplicity, we classify dietary supplements into three groups: (i) Vitamins, (ii) Minerals, (iii) Non-vitamins non-minerals (NVNM). We also asked the respondents to answer a 5-item questionnaire evaluating their opinions on dietary supplements (Table 2).

### Results

882 medical, pharmacy and nursing students participated in this survey. 71.9% reported using any dietary supplements for the past one year, and 43.4% reported using them daily (any vitamins 32.8%, any minerals 12.6%, any NVNM 30.4%). The top 10 dietary supplements used are shown in Figure 1. Factors significantly associated with usage of dietary

supplements were female gender and those reporting current health problems. The respondents' opinions about dietary supplements were generally between unsure and disagree.

### Discussion

Daily use of dietary supplements is very common among the health sciences students. This figure could be higher than the general population's usage of "food supplements" in the Malaysian Food Consumption Survey (24.8%).<sup>2</sup> The type of dietary supplement used by our respondents in our study is fairly similar to the national survey. We are puzzled by high reported usage of dietary supplements among our respondents despite their ambivalence concerning the benefits of these products. In view of the weak evidence-base of many dietary supplements,<sup>6</sup> there is a need to strengthen the health science curriculum with the aim of producing better informed future professionals.<sup>7</sup>

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Table 1: Questionnaire: Dietary Supplement Usage

12. Have you consumed the following supplement(s) in the PAST ONE YEAR

Yes  No

If YES, please tick whether it is daily use OR ever use. You may tick MORE THAN ONE supplement. You may list additional Dietary Supplements not in the list in the blank spaces. If NO, please proceed to Section C in page 3.

VITAMIN	DAILY USE	EVER USE	NON-VITAMIN NON-MINERAL	DAILY USE	EVER USE
A			Echinacea		
B			Evening Primrose Oil		
C			Fish Oil		
D			Flaxseed Oil		
E			Garlic Pill		
K			Ginger Tablet		
MINERAL	DAILY USE	EVER USE	Gingko <td></td> <td></td>		
Iron			Ginseng		
Calcium			Grape Seed Oil		
Magnesium			Horse Tail		
Zinc			Horseradish		
Selenium			Kacip Fatimah		
NON-VITAMIN NON-MINERAL	DAILY USE	EVER USE	Lecithin <td></td> <td></td>		
Aloe Vera			Milk Thistle		
Alpha Lipoic Acid			Protein Powder		
Bilberry			Pumpkin Seed Oil		
Celery			Red Yeast Rice		
Co-Enzyme Q10			Royal Jelly		
Collagen			Saw Pahnnetto		
Cranberry Juice / Powder			Spirulina		
Dong Quai			Tongkat Ali		
			Vitex		
			Wheat Grass		

Table 2: Questionnaire: Opinion About Dietary Supplements

11. Please indicate your opinion about Dietary Supplements

(There is no absolute right or wrong concerning these question, please feel free to indicate your opinion by ticking the appropriate boxes.)

	STRONGLY AGREE	AGREE	NOT SURE	DISAGREE	STRONGLY DISAGREE
a. Dietary supplement is necessary for all ages					
b. Dietary supplement is generally harmless					
c. Regular use of supplement prevents chronic diseases					
d. Dietary supplements can prevent cancers					
e. Health personnel should promote use of supplements					

Figure 1: Top 10 dietary supplements used by health sciences students (percentages among all users)

