

Healthcare Professionals Call for Increased Education on Herbal and Dietary Supplements

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Background

Herbal and dietary supplements (HDS) are available over the counter and widely used in the United States across all demographics. However, even though HDS are available to patients without a prescription, they do not have the same regulations as other OTC medications or prescription medications.¹ Unlike prescription drugs, HDS can be sold without demonstrating safety and/or efficacy.² Because of this, there is a significant lack of information regarding safety and efficacy of several herbal supplements on the market currently.² Despite this lack of regulation and research, patients are still taking HDS frequently and often without the knowledge or recommendation of their healthcare provider(s). Due to the lack of safety and efficacy data, it is extremely important for healthcare professionals to know about patients' HDS use so that patients can be monitored and treated effectively.

To our knowledge, the extent of healthcare professionals' education on the topic of HDS and the correlation of their comfort level of recommending HDS is unknown. It is the job of healthcare professionals, especially pharmacists, to understand medications' effects, communicate these effects to patients, and make recommendations to patients. Without proper understanding of education on HDS, healthcare professionals cannot effectively recommend HDS to patients. In a previous study done on pharmacy students in 2005, 95% of students felt that they needed more education about HDS, and 71% felt that they did not have adequate knowledge for practice.³ The Accreditation Council on Pharmacy Education (ACPE) recognized a need for increased education in pharmacy schools' curriculum, and required pharmacy school to implement education on herbal supplements.³ However, there has not been clear guidance on how to go about implementing HDS education, so most schools have adopted a minimalist approach of teaching HDS intermittently in existing courses or adding elective courses that not every student takes advantage of.³ Our survey sought to determine the level of education healthcare professionals have regarding HDS as well as their level of comfort in recommending HDS to patients.

Hypothesis & Objective

Hypothesis: Due to the lack of research and safety concerns, many healthcare professionals do not feel comfortable prescribing or recommending HDS, and this could be greatly improved by proper education on the topic.

Methods

We surveyed 1,300 healthcare professionals across Ohio. Participants were randomly selected using UF College of Pharmacy's list of experiential preceptors and various health-systems' staff directories. To be eligible for inclusion, participants had to be a healthcare professional that has the legal freedom to either prescribe or recommend HDS. The eligible professionals included, but were not limited to, pharmacists, physicians, physician assistants, nurses, dietitians, and students of such healthcare professions. Participants were employed at retail pharmacies, private practices, outpatient clinics, hospitals, and universities. Participants were sent an email and given one month to complete it. Implied consent information was provided at the beginning of the survey and detailed information regarding the study's purpose, anonymity of participants, risks and benefits of participation, an explanation that participation is completely voluntary, what will be done with the data, how long the data will be stored, and who to contact with further questions or concerns. The survey consisted of 18 questions with an additional section in which participants could make any other comments regarding the survey or the topic of HDS. The survey included 1 question on demographics with which the exact profession of the healthcare professional was determined. It also included 8 questions relating to personal prescribing or recommendation practices, 2 questions regarding current regulation of HDS, and 7 questions regarding personal education and knowledge of HDS. The survey design was cross-sectional and utilized an online questionnaire format using Google Forms. Information regarding the sex, age, name, and place of employment was left out of the survey to enhance anonymity and authenticity of individual survey answers.

Results

After sending the survey to 1,300 healthcare professionals, 204 participants responded, producing a response rate of 15.7% (shown in Figure 1). After a thematic analysis of comments from survey respondents was conducted, some common themes that arose included a lack of comfort with their education level on HDS, a desire for more strict regulation by the FDA, and concern regarding the consistency of potency and purity in different brands of HDS. Despite these trends, survey results show that almost 75% of healthcare professionals who are able to prescribe and/or recommend medications either regularly or sometimes recommend HDS to patients (shown in Figure 2).

Figure 1. HCP Respondents

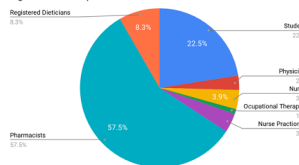
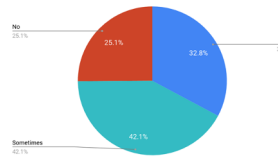


Figure 2. Recommendation Frequency



Respondents were given a list of several HDS and asked which ones they have recommended to patients in the last 12 months. The list of HDS included CoQ10, melatonin, turmeric, green tea extract, St. John's Wort, omega-3 fatty acid, vitamin D3, calcium, potassium, red yeast rice, or glucosamine. Respondents also had the option of choosing "none of the above". The three HDS that respondents most commonly reported recommending to patients were vitamin D3 (55.9%), melatonin (54.9%), and calcium (48.5%). The HDS with the lowest percentage of healthcare professionals reporting recommending to patients was St. John's Wort (2.5%).

Furthermore, only 36.8% of respondents reported taking a class (optional or required) on herbal and dietary supplements, but 96% of those who did take a class felt that it was beneficial to their professional practice, which indicates that increased education on HDS could potentially help improve healthcare professionals' level of comfort recommending/prescribing HDS (shown in Figure 3 and Figure 4).

Figure 3. HCP Respondents Who Took A Class

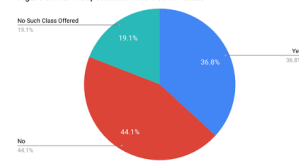
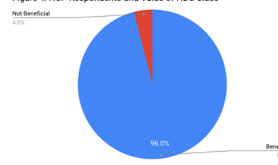


Figure 4. HCP Respondents and Value of HDS Class



Of those that took a class on HDS, the average response to the question "On a scale of extremely educated to not educated at all, how educated do you consider yourself to be of the side effects, interactions, and safety of supplements?" the average response was 3.59 on a scale from 1-5. Of those who did not take a class, the average response was a 3.05.

Figure 5. Average Education Rating of Respondents

Group	Average rating on a scale from 1-5 on how educated HCP feel on HDS
Respondents who took a class	3.59
Respondents who did not take a class	3.05

Discussion & Conclusion

Overall, the majority of healthcare professionals are prescribing and/or recommending herbal supplements despite feeling that they have a lack of proper education on the topic. Survey results indicate that those who did receive education on HDS found it to be useful towards their knowledge during the recommendation process. One respondent stated, "Pharmacognosy should be reinstated in pharmacy curriculums. Pharmacists from other countries I have worked with are far better versed in herbal medicine and its application. Many of our prescription medications have been developed from natural sources, but healthcare professions have become woefully undereducated in this arena." Institutions may be reluctant to include HDS education into curriculums for many of the same concerns expressed amongst survey respondents. First, the limited availability of high quality studies concerning HDS efficacy. Second, safety concerns of HDS products as a result of the less strict regulation process. It is only once safety and efficacy of a drug product is established through regulation and evidence of patient care outcomes that a chain of proper education and subsequent patient recommendations can be made. The findings of this study cast light on the importance of proper HDS education for healthcare professionals and the potential impact it could have on patient outcomes through confidence of HDS recommendations.

References

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