

## Mini Review

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# Are we all Talking about the Same Thing? Heterogeneity and Nomenclature in Description of Natural Health Products

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## ABSTRACT

The use of Natural Health Products (NHPs) in pediatrics is becoming increasingly common. NHPs are often referred to by a variety of different names, which may lead to parental/patient confusion when asked to disclose their use. The aim of this paper is to determine what terminology is cited throughout the literature to describe NHPs. This review reveals that there is significant heterogeneity in the literature used to describe NHPs. Nurses need to be aware of the diverse terminology used to describe or define NHPs, so that further delineation can be attempted while assessing for their use among their patients. Clear communication is pertinent to the delivery of safe patient care, so that all medicinal products can be accounted for, regardless if they are classified as “natural” or otherwise.

**KEYWORDS:** Natural Health Products (NHP); Communication; Terminology.

## BACKGROUND

Throughout the world Natural Health Products (NHPs) are referred to in the same spoken language with different terminology. Just as it is pertinent to understand homonyms in medicine (such as “lyse”, to break something open, and “lice”, a parasite) it is also important to understand how language used to describe NHPs can contribute to miscommunication in assessment and patient care. The World Health Organization recently reported that natural products are widely valued and utilized globally, and their use is anticipated to continually grow.<sup>1</sup>

The term NHP was coined in Canada and includes vitamins and minerals, herbal, homeopathic, and traditional medicines (such as Chinese medicines), probiotics and other products such as amino acids and essential fatty acids.<sup>2</sup> In the United States (US), NHPs include these same products although are considered “food products” intended to supplement the diet, hence, the term dietary supplement.<sup>3</sup> Due to the author’s belief that NHPs are medicinal, rather than nutritional, the term NHP is used throughout this paper.

The term “natural” does not necessarily mean a therapy is safe; this is illustrated with the natural leaves of the *Erythroxylum coca* bush that pose serious health risks when produced into the illegal street drug, cocaine.<sup>4</sup> In addition, almost 25% of NHPs are comprised of natural plant substances and can have the same biological effects on patients as other prescription medications.<sup>5</sup> Globally, some NHPs are placed under strict government regulations, and others are easily accessible as over the counter products. A good example of this is melatonin. In the US, melatonin is considered a dietary supplement, in Canada, a NHP, and in Australia, it is available only as a prescription medication. The aim of this review is to investigate the different terminology used throughout the literature to describe NHPs.

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## METHOD

Two bibliographic databases were searched for discovery of utilized terminology in March 2014. Inclusion criteria were peer-reviewed article titles, with human health science research, published within the past five years. The first database, PubMed, was chosen for its wide access to biomedical literature from the US National Library of Medicine. Results revealed citations for the term dietary supplements (245 articles), botanical (111 articles), complementary and alternative medicine (661 articles), nutraceutical (76 articles), NHPs (22 articles), natural medicine (8 articles) traditional medicine (115 articles) and herbal medicine (297 articles).

Despite PubMeds global access, a second search was performed using Scopus in effort to limit cultural confounding. Scopus reports they are the largest biomedical database of peer-reviewed literature, abstracts, and citations, and place emphasis on the inclusion of global research. Using the same inclusion criteria as the prior search, the author found dietary supplements (331 articles), botanical (64 articles), complementary and alternative medicine (673 articles), nutraceutical (50 articles), NHPs (22 articles), natural medicine (21), traditional medicine (718) and herbal medicine (370 articles).

Title Term Searched	PubMed	Scopus
Botanical	111	64
Dietary Supplement	245	331
Complementary and Alternative Medicine (CAM)	661	673
Nutraceutical	76	50
Natural Health Product (NHP)	22	22
Natural Medicine	8	21
Traditional Medicine	115	718
Herbal Medicine	297	370

**Table 1:** Natural Health Product Terminology: Displays search results for terminology used to describe natural health products in PubMed and Scopus. CAM and traditional medicine were found the most, and natural medicine was found the least.

## FINDINGS

Search results imply that there is wide nomenclature and heterogeneity in the literature when describing NHPs. It appears that bibliographic databases produce a variety of citations, favoring the terms complementary and alternative medicine or traditional medicine. Policies and product regulations within different countries often bind terminology used among their health care agencies. The worldwide diversity in the terminology utilized to describe similar products could potentially lead to decreased access to evidence based literature among health care professionals, hasten confusion among patients and peers, and finally, limit the

dissemination of knowledge.

## DISCUSSION

Despite the common use of NHPs, it has been reported that there is little acknowledgement between families and providers when discussing the care of a child. Approximately 37% of clinicians ask about NHP use, and up to 72% of patients don't spontaneously disclose using it.<sup>6</sup> Families do not report using NHPs because they assume their medical provider has no knowledge of NHPs, the provider never asks, or they fear a negative response.<sup>7</sup>

Open communication about all medical therapies is paramount to the delivery of safe patient care. Certain NHPs put patients at risk for potential drug-herb interactions. Liver enzymes, such as CYP450, can be altered by the use of an NHP, and as a result, render a prescription drug more toxic or ineffective. In addition, co-administration of NHPs with prescription medications is common.<sup>8</sup> If a parent/patient fails to disclose NHP use (either by failure to report or by failure of being asked) the risk of drug-herb interactions increases greatly.

Goldman and associates conducted a study in a pediatric emergency room department in 2008 and found that concurrent drug-NHP use was documented in every fifth patient, and 15% of NHP users were receiving more than one NHP simultaneously. One quarter of those paired medication-NHP or NHP-NHP could have potentially caused adverse interactions, with bleeding being the most common.<sup>9</sup> The importance of this can be illustrated with patients taking high doses of fish oil supplements. Omega fatty acids can produce an antithrombotic effect, increasing the risk of bleeding. Disclosing the use of this NHP would be significant for a provider who was evaluating a patient who had received a traumatic head injury.

Children are more susceptible to adverse NHP effects because of the differences in their metabolism, physiology, and dose per body weight. If a provider is not aware a child is taking an NHP, he/she cannot give recommendations on its safety or efficacy. A study in 2011 discovered approximately 9% of infants were given NHPs, most commonly "gripe water", within the first year of life.<sup>10</sup> Parents reported that their sources for information on this NHP came from friends, family, or media. Parents reported receiving the least amount of information from their health care provider, who is arguably in the best position to provide such advice.

## IMPLICATIONS/CONCLUSIONS

To the author's knowledge, this is the first known scholarly review to evaluate the literature surrounding the

terminology of NHPs. Despite what terminology is used to describe a NHP, health care providers need to be aware of their use so they can provide appropriate medical care. The results of this review suggest natural medicines and substances are called by many different names. While keeping up to date with all possible labels assigned to NHPs is prudent for clinicians, so is understanding confusion and misconceptions are likely among patients. It is plausible to consider that allotting more time to further define what NHPs are (naming them individually; vitamins, minerals, herbs, amino acids, essential fatty acids, probiotics, and traditional medicines), will yield greater disclosure of their use among patients. Once patients and providers can agree they are talking about the same thing, important health information can be elicited for all medicinal products patients are consuming. Full product disclosure enables clinicians to provide more comprehensive, holistic, and safer patient care.

cal supplements and teas to infants in the united states. *Pediatrics*. 2011; 127(6): 1060-1066. doi: [10.1542/peds.2010-2294](https://doi.org/10.1542/peds.2010-2294)

## REFERENCES

1. The World Health Organization. WHO traditional medicine strategy: 2014-202 Website: <http://www.who.int/en/>, 2013.
2. Health Canada. Natural health products. Website: <http://www.hc-sc.gc.ca/dhp-mpps/prodnatur/index-eng.php> 2014; Accessed March 1, 2014.
3. United States Food and Drug Administration. Dietary supplements. Website: <http://www.fda.gov/Food/DietarySupplements/> 2013; Accessed June 6, 2013.
4. National Institute of Health, National Institute of Drug Abuse. Cocaine: Abuse and addiction. Website: <http://www.drugabuse.gov/publications/research-reports/cocaine/letter-director> 2013; Accessed June 6, 2013.
5. Tomassoni AJ, Simone K. Herbal medicines for children: An illusion of safety? *Current Opinion in Pediatrics*. 2001; 13(2): 162-169.
6. Sawni A, Thomas R. Pediatricians' attitudes, experience and referral patterns regarding Complementary/Alternative Medicine: A national survey. *BMC Complementary and Alternative Medicine*. 2007; 7: 18. doi: [10.1186/1472-6882-7-18](https://doi.org/10.1186/1472-6882-7-18)
7. Robinson A, McGrail MR. Disclosure of CAM use to medical practitioners: A review of qualitative and quantitative studies. *Complementary Therapies in Medicine*. 2004; 12(2-3): 90-98. doi: <http://dx.doi.org/10.1016/j.ctim.2004.09.006>
8. Mills E, Wu P, Johnston BC, Gallicano K, Clarke M, Guyatt G. Natural health product-drug interactions: A systematic review of clinical trials. *Therapeutic Drug Monitoring*. 2005; 27(5): 549-557.
9. Zhang Y, Fein EB, Fein SB. Feeding of dietary botani