Wikipedia Policies/Guidelines Violations Found on “Naturopathy” Page


Purpose of This Document

The Wikipedia page entitled “Naturopathy” (Naturopathy or Naturopathic Medicine) contains incorrect and/or misleading information that violates Wikipedia’s own policies and guidelines. Further, the page has been “frozen” by Wikipedia until 2019, which effectively silences anyone with accurate, verified information, at least within the Wikipedia platform.

The purpose of this document is to identify violations and provide accurate, sourced information on naturopathic medicine and licensed naturopathic doctors that meets the Wikipedia’s written policies and guidelines. (Source: https://en.wikipedia.org/wiki/Wikipedia:Policies_and_guidelines). In fairness and in service of Wikipedia readers, we request that Wikipedia open the page to edits, comments, and corrections, and moderate future attempts to mislead readers.

Introduction

The chief problem with the page referenced above is that authors and editors have co-mingled terms in an obvious attempt to confuse and mislead readers. For example, “naturopathic medicine” can be performed only by licensed and/or certified naturopathic doctors in states that regulate naturopathic doctors. Naturopathic doctors are trained and educated in, and must graduate from, four-year, in-residence, graduate level naturopathic medical schools accredited by the U.S. Department of Education and pass a state-level board exam. “Naturopathy” is a term that anyone can use to promote themselves as “naturopaths.” However, throughout this article, these terms are used when discussing both regulated naturopathic medicine and unregulated naturopathic practices. The article itself should be titled “Naturopathic Medicine” and include definitions of terms and content that clearly presents the difference between the two to avoid reader confusion.

As a result of this co-mingling of terms and a clear bias against a naturopathic medicine, in a thorough review of the Naturopathy page, we found 20 inaccurate statements and 6 statements that are incomplete or inappropriately placed or included, and therefore violate Wikipedia’s own policies and guidelines. For each of these statements, we have provided the following:

- The statement with citations, when they exist
- A summary of violations for the statement, based on Wikipedia’s own policies and guidelines
- Accurate, verified information with citations

The source data for Naturopathic Medicine is available on the American Association of Naturopathic Physician (AANP) website and it located at this link http://www.naturopathic.org/natfaqs. This association represents the profession and licensed naturopathic doctors just as the American Medical Association represents licensed medical doctors (MDs).
Statements that Violate Wikipedia Policies/Guidelines: Preview

Naturopathy: Main Page

1. Inaccurate statement: “Naturopathy or naturopathic medicine is a form of pseudoscientific, alternative medicine that employs an array of practices branded as ‘natural’, ‘non-invasive’, and as promoting ‘self-healing’.”

2. Inaccurate statement: “The ideology and methods of naturopathy are based on vitalism and self-healing, rather than evidence-based medicine.”

3. Inaccurate statement: “Naturopathic practitioners generally recommend against modern medical practices, including but not limited to medical testing, drugs, vaccinations, and surgery.”

4. Inaccurate statement: “Instead, study and practice are focused on unscientific notions, often leading naturopathic doctors to diagnoses and treatments that have no factual merit.”

5. Inaccurate statement: “Naturopathic medicine is considered by the medical profession to be ineffective and possibly harmful, raising ethical issues about its practice.”

6. Inaccurate statement: “In addition to accusations from the medical community, such as the American Cancer Society, naturopaths and naturopathic doctors have repeatedly been accused of being charlatans and practicing quackery.”

7. Inaccurate statement: “Over the years, many practitioners of naturopathic medicine have been found criminally liable in the courts of law around the world. In some countries, it is a criminal offense for naturopaths and naturopathic doctors to label themselves as medical professionals.”

SECTION: Practice

1. Inaccurate statement: “Naturopaths aim to prevent illness through stress reduction and changes to diet and lifestyle, often rejecting the methods of evidence-based medicine.”

2. Inaccurate statement: “Many naturopaths present themselves as primary care providers, and some naturopathic physicians may prescribe drugs, perform minor surgery, and integrate other conventional medical approaches such as diet and lifestyle counselling with their naturopathic practice.”

3. Inaccurate statement: “Naturopaths do not generally recommend vaccines and antibiotics, based in part on the early views that shaped the profession, and they may provide alternative remedies even in cases where evidence-based medicine has been shown effective.”

Subsection: Methods

1. Inaccurate statement: “Naturopaths are often opposed to mainstream medicine and take an antivaccinationist stance.”
Subsection: Evidence Basis

1. Inaccurate statement: “Naturopathy lacks an adequate scientific basis, and it is rejected by the medical community.”

2. Inaccurate statement: “Natural substances known as nutraceuticals show little promise in treating diseases, especially cancer, as laboratory experiments have shown limited therapeutic effect on biochemical pathways, while clinical trials demonstrate poor bioavailability.”

3. Inaccurate statement: “Kimball C. Atwood IV writes, in the journal Medscape General Medicine, Naturopathic physicians now claim to be primary care physicians proficient in the practice of both ‘conventional’ and ‘natural’ medicine. Their training, however, amounts to a small fraction of that of medical doctors who practice primary care. An examination of their literature, moreover, reveals that it is replete with pseudoscientific, ineffective, unethical, and potentially dangerous practices.”

4. Inaccurate statement: “In another article, Atwood writes that Physicians who consider naturopaths to be their colleagues thus find themselves in opposition to one of the fundamental ethical precepts of modern medicine. If naturopaths are not to be judged ‘nonscientific practitioners’, the term has no useful meaning.”

Subsection: Safety of Natural Therapies

1. Inaccurate statement: “Naturopaths often recommend exposure to naturally occurring substances, such as sunshine, herbs and certain foods, as well as activities they describe as natural, such as exercise, meditation and relaxation. Naturopaths claim that these natural treatments help restore the body's innate ability to heal itself without the adverse effects of conventional medicine.”

2. Inaccurate statements: “Certain naturopathic treatments offered by naturopaths, such as homeopathy, rolfing, and iridology, are widely considered pseudoscience or quackery.”

SECTION: Practitioners

Subsection: Licensed Naturopaths

1. Inaccurate statement: “Licensed naturopaths present themselves as primary care providers. Licensed naturopaths do not receive comparable training to medical doctors in terms of the quality of education or quantity of hours.”

Subsection: Education

1. Incomplete information: “Licensed naturopaths must pass the Naturopathic Physicians Licensing Examinations (NPLEX) administered by the North American Board of Naturopathic Examiners (NABNE) after graduating from a program accredited by the Council on Naturopathic Medical Education (CNME).”

2. Inaccurate statement: “Training in CNME-accredited programs includes basic medical diagnostics and procedures such as rudimentary physical exams and common blood tests, in addition to pseudoscientific modalities, such as homeopathy, acupuncture, and energy modalities.”
3. Inappropriate content placement/inclusion: “These accredited programs have been criticized for misrepresenting their medical rigor and teaching subjects that are antithetical to the best understandings of science and medicine.”

4. Inappropriate content placement/inclusion: “The CNME as an accrediting authority has been characterized as unreliable and suffering from conflicts of interest.”

5. Inappropriate content placement/inclusion: “The naturopathic licensing exam has been called a mystery by those outside the naturopathic profession.”

**Subsection: Political Activity**

1. Inappropriate content placement/inclusion: “Jann Bellamy has characterized the process by which naturopaths and other practitioners of pseudoscience convince lawmakers to provide them with medical licenses as ‘legislative alchemy.’”

2. Inappropriate content placement/inclusion: “Since 2005, the Massachusetts Medical Society has opposed licensure based on concerns that NDs are not required to participate in residency and concerns that the ‘practices’ of naturopaths included many “erroneous and potentially dangerous claims.”

3. Inappropriate content placement/inclusion: “In addition to opposing further licensure, she believes that NDs should not be allowed to use the titles "doctor" or "physician," and be barred from treating children. She states: ‘Naturopaths aggressively lobby for laws to issue them medical licenses. I would characterize this political effort as a perverted redefinition of the words ‘physician,’ ‘doctor,’ ‘medical school,’ and ‘residency’ in order to mask the inadequacy of the training provided in naturopathic programs. ND students do not realize that they are taking educational shortcuts and therefore do not possess any demonstrable competencies found in modern medicine.’”
Naturopathy Main Page

Wikipedia Violation Overview/Summary

- Does not highlight necessary differentiation between terms at top of page (naturopathy versus naturopathic medicine)
- Does not provide a summary of the page's most important contents (education, training and licensure/regulation); instead focuses on controversial content
- Violates Wikipedia's principal content policy of neutral point of view; this section gives undue weight to a minority perspective in depth of detail, quantity of text, prominence of placement, and juxtaposition of statements
- Violates Wikipedia's principal content policy of verifiability; a number of statements either lack citations or contain citations that provide no direct support for the statement

Inaccuracies

1. Inaccurate statement: “Naturopathy or naturopathic medicine is a form of pseudoscientific, alternative medicine that employs an array of practices branded as ‘natural’, ‘non-invasive’, and as promoting ‘self-healing’.”

Citation

None

Wikipedia Violations

- Violates verifiability-no citation
- Violates neutral point of view- sweeping statement and label of “pseudoscientific” without acknowledgement of contradictory evidence.
- Lacks clear outline or differentiation between licensed naturopathic doctors and lay naturopaths. In addition, there is a lack of immediate acknowledgement of geographic variation, which changes the definition significantly. For comparison, Wikipedia differentiates between traditional osteopathy and osteopathic medicine by having two different pages: “Osteopathic medicine in the United States” and “Osteopathy”. At the top of the Osteopathy page, it states: “For the American medical practice of osteopathic physicians in the United States, see Osteopathic medicine in the United States.” (https://en.wikipedia.org/wiki/Osteopathy). The lack of this key differentiation at the top of the Naturopathy page leads to countless instances of incorrect and unverified claims throughout the article, which propagates confusion and fails to accurately define Naturopathic medicine in the United States.

Accurate, Verified Information

- Naturopathic medicine and traditional naturopathy are two distinct entities in the United States, especially when it comes to level of training and scope of practice.
- “Naturopathic medicine is a distinct primary health care profession, emphasizing prevention, treatment, and optimal health through the use of therapeutic methods and substances that encourage individuals’ inherent self-healing process. The practice of naturopathic medicine includes modern and traditional, scientific, and empirical methods.”
  - Source: AANP (http://www.naturopathic.org/content.asp?contentid=59)
- “AANMC’s accredited naturopathic schools meet both federal and academic standards. Graduation from a naturopathic medicine program that is accredited or is a candidate for accreditation guarantees eligibility to sit for the Naturopathic Physicians Licensing Examinations (NPLEX), the passage of which is required to obtain licensure.”
2. Inaccurate statement: “The ideology and methods of naturopathy are based on vitalism and self-healing, rather than evidence-based medicine.”

Citation
  - This is a “Perspectives” article from 2006 and statements refer to “traditional naturopathy” rather than modern “Naturopathic Medicine”

Wikipedia Violations
- Violates neutral point of view by citing perspective/personal opinion article, and as a result lacks verifiability

Accurate, Verified Information
- The following principles are the foundation of naturopathic medical practice:
  - Identify and Treat the Causes (Tolle Causam): The naturopathic physician seeks to identify and remove the underlying causes of illness rather than to merely eliminate or suppress symptoms.
  - First Do No Harm (Primum Non Nocere): Naturopathic physicians follow three guidelines to avoid harming the patient:
    - Utilize methods and medicinal substances which minimize the risk of harmful side effects, using the least force necessary to diagnose and treat;
    - Avoid when possible the harmful suppression of symptoms; and
    - Acknowledge, respect, and work with individuals’ self-healing process.
  - Doctor as Teacher (Docere): Naturopathic physicians educate their patients and encourage self-responsibility for health. They also recognize and employ the therapeutic potential of the doctor-patient relationship.
  - The Healing Power of Nature (Vis Medicatrix Naturae): Naturopathic medicine recognizes an inherent self-healing process in people that is ordered and intelligent. Naturopathic physicians act to identify and remove obstacles to healing and recovery, and to facilitate and augment this inherent self-healing process.
  - Treat the Whole Person: Naturopathic physicians treat each patient by taking into account individual physical, mental, emotional, genetic, environmental, social, and other factors. Since total health also includes spiritual health, naturopathic physicians encourage individuals to pursue their personal spiritual development.
  - Prevention: Naturopathic physicians emphasize the prevention of disease by assessing risk factors, heredity and susceptibility to disease, and by making appropriate interventions in partnership with their patients to prevent illness.
    - Source: AANP ([http://www.naturopathic.org/content.asp?contentid=59](http://www.naturopathic.org/content.asp?contentid=59))

3. Inaccurate statement: “Naturopathic practitioners generally recommend against modern medical practices, including but not limited to medical testing, drugs, vaccinations, and surgery.”

Citations
  
  o General Findings
  
  “This study suggests that children presenting for naturopathic care are high-level consumers of CAM products and their rates of positive vaccination status are lower than population averages.” The article highlights factors associated with those who seek care, rather than evidence on recommendations given by NDs.

  The article contains no quality evidence that most NDs recommend against modern medical practices such as medical testing, drugs, vaccines, or surgery. Thus, this article does not adequately support the original statement.

  o Notes from article:

  “8% of the pediatric patients who saw a practitioner at NCC were unvaccinated.”

  “86.7% of patients with reported vaccination status were fully vaccinated.”

  “The use of complementary and alternative medicine (CAM) has grown substantially in North America.1 This trend has drawn the attention of conventional-medicine practitioners, who have expressed concern regarding the potential for unregulated therapies to cause harm, the often-uncertain cost-benefit ratios associated with these therapies, and the possibility that some CAM providers might advise against established conventional therapies, such as vaccination.23”

  “Approximately one third of children and adolescents were using CAM products at the time of presentation.” (CAM products being vitamins, minerals, probiotics, herbal preparations, homeopathy)

  “Parents may already be sensitized to vaccination concerns before seeking treatment from a naturopathic physician.”

  “Although the reasons why individuals elect to pursue CAM therapies are not completely understood, there is some evidence that consumers find these health care alternatives to be more congruent with their own values and beliefs.33 Other studies have suggested that the decision to continue with CAM therapies is largely the result of positive experiences with such therapies, rather than prior beliefs.34 Some parents elect to pursue CAM therapies for their children because they are dissatisfied with conventional-medicine approaches or they think that CAM products are “natural” and therefore less likely to cause harm.435

  
  o General Findings

  “Most chiropractic and naturopathic students are not averse to vaccination. The minority that are may have been unduly influenced by anti-vaccination propaganda, or may have rejected vaccination on philosophical grounds (e.g. chiropractors adhering to the Palmer doctrines).”

  The article examines student’s attitudes towards vaccination rather than providing evidence on recommendations given by NDs in practice. Thus, the article does not directly support the original statement written in Wikipedia. Furthermore, it demonstrates that the contributor is unable to remain neutral, frequently extrapolating beyond evidence provided by sources, and making definitive, sweeping generalizations to describe an entire profession.
Notes from article:

- "How relevant these observations are to chiropractic and naturopathic student bodies in other countries is uncertain, however, due to differences in educational curricula and philosophical approaches."
- "Although the students were interested in the topic of vaccination, participants at CMCC were aware that the issue was outside their clinical scope and not a topic to be discussed with patients."
- "Among both CMCC and CCNM students we found that anti-vaccination attitudes were more prevalent in later years of the programs. Since both surveys were cross-sectional analyses, and a single cohort was not followed through the 4 years, we cannot say for certain that anti-vaccination beliefs intensify as individuals progress through the program."
- "Among CMCC participants, there was good awareness of the fallacy of many common anti-vaccination arguments espoused in the non-peer-reviewed literature, with some participants specifically crediting new formal curriculum material designed to address these arguments."
- "12.8% of respondents would recommend parents to have their children receive all of the recommended vaccines. The large majority, 74.4%, would recommend vaccination with some vaccines. A small proportion, 12.8%, would not recommend any of the currently recommended vaccines, the primary reason being concern about potential harms. CAM providers were identified as the primary source of information about vaccines as well as the most trusted source. The majority of respondents had low or no trust in conventional sources of information on vaccines (public health, allopathic physicians) \(^ {1}\). Predictors of willingness to recommend vaccination were belief that vaccines are beneficial (OR 16.4) and trust in public health information (3.72) \([\text{An odds ratio (OR) >1 for a variable indicates that a student with the characteristics described has an increased probability of recommending full vaccination, compared to a student without that characteristic.} \])\). Being in the last 2 years of the program (OR 0.13) or knowledge of someone with an adverse reaction to vaccines were predictors of not recommending vaccines \(^ {3}\)."
- "As regards vaccination, the position of the Canadian Naturopathic Association (2000) is that "immunizations may be effective for controlling the incidence of specific contagious diseases" and that "immunizations can cause serious adverse reactions, possibly even fatal, in a small minority of children". The Association also states that parents should be well informed of the benefits and risks of vaccination and that there are no natural "substitutes" for immunization."

### References

  - This is the original source of the data presented in the review above.
  - In the discussion, refers to "A study of practicing naturopathic doctors in Massachusetts, USA found that only 3 of 15 (20%) naturopaths would actively recommend vaccinations, although only 1 (7%) openly opposed vaccinations\(^ {14}\). Another study identified a substantial level of heterogeneity in attitudes towards vaccination amongst naturopaths with many discouraging their use\(^ {15}\)."
  - The specific study referenced is available at here: [http://jamanetwork.com/journals/jamapediatrics/fullarticle/348533](http://jamanetwork.com/journals/jamapediatrics/fullarticle/348533). It was done in 1998, at which time there was no licensure for NDs in the state. Original results reported by them: "Eight (35%) of 23 of HPs and 3 (20%) of 15 of NDs actively recommended immunizations, while 2 HPs (9%) and 1 ND (7%) openly opposed childhood immunizations. The remainder reported that they did not make any
recommendations regarding immunization or omitted the question.” This indicates improper reporting because only 4 out of 15 NDs answered the question and that would lead to a result of 75% recommending immunization.

- Since this was the only reference of recommendations made by naturopathic providers, it does not end up supporting the original statement. The article contains no quality evidence that most NDs recommend against modern medical practices such as medical testing, drugs, vaccines, or surgery.

- Notes from article:
  - However, CCNM states that it does not actively teach about the risks of vaccinations. Students are also told not to make recommendations against childhood vaccinations. Therefore, a possible explanation for our observations is that students’ anti-vaccination attitudes are intensified and validated by the presence of other students with similar beliefs. More in depth qualitative research is required to better establish why these anti-vaccination beliefs develop.
  - The potential receptivity of the CAM practitioner community to be engaged in debate with the conventional medical community on the issue of vaccination is demonstrated by the willingness of CCNM and the Canadian Memorial Chiropractic College allowing their students’ attitudes towards vaccination to be examined.

  - The only reference to NDs and flu vaccines in this article is a statement made by one Bastyr faculty member: “Being a naturopathic physician, I believe in the body’s ability to heal itself. The body can do this very effectively when it is kept healthy. By taking extra good care of yourself and possibly working with a natural health practitioner, you can stay resistant to colds and the flu every winter. Remember, there are many routes to immunity besides obtaining a flu shot”
  - There is no mention that most NDs recommend against modern medical practices such as medical testing, drugs, vaccines, or surgery. Thus, this article does not adequately support the original statement

Wikipedia Violations

- Violates neutral point of view
- Violates validity and contains irrelevant citations that do not support the statement. None of the sources provide direct evidence that the majority of naturopathic providers are “against modern medical practices, including but not limited to medical testing, drugs, vaccinations, and surgery”, as the claim states.

Accurate, Verified Information

- Naturopathic practice includes the following diagnostic and therapeutic modalities: clinical and laboratory diagnostic testing, nutritional medicine, botanical medicine, naturopathic physical medicine (including naturopathic manipulative therapy), public health measures, hygiene, counseling, minor surgery, homeopathy, acupuncture, prescription medication, intravenous and injection therapy, and naturopathic obstetrics (natural childbirth).
  - AANP (http://www.naturopathic.org/content.asp?contentid=59)

4. Inaccurate statement: “Instead, study and practice are focused on unscientific notions, often leading naturopathic doctors to diagnoses and treatments that have no factual merit.”
Citations

  - Violates neutral point of view- This is an article written by someone who, according to Wikipedia, is an “active skeptic” and “outspoken critic of naturopathy”. Understandably, the author writes from a biased perspective. He often uses loaded language, draws inaccurate and unverified conclusions from the sources he cites, and states his opinions as facts. After the article was published, so many letters written to the author and publisher that the author wrote a second article to address the different complaints he received.

  - This document contrasts training hours between NDs and family physicians.
  - No mention of “unscientific notions” or “diagnoses and treatments that have no factual merit”.
  - Irrelevant source

Wikipedia Violations

- Violates validity-Contains an irrelevant citation that does not support the statement.
- Violates neutral point of view-The statement does not acknowledge that NDs are trained to utilize both conventional and integrative medical approaches and therapies.

Accurate, Verified Information

- “During the first two years, ND students’ credit loads are almost identical to those of MD students. In nearly every biomedical science, ND students are required to complete as many credits as, if not more than, MD students. Specifics vary by school, but a 2010 course comparison of the University of Washington’s MD program and Bastyr University’s ND program shows that during the first two years, University of Washington MD students completed a total of 150 credits and Bastyr ND students completed 151.5 credits, most of them in comparable biomedical and diagnostic science courses.”

5. Inaccurate statement: “Naturopathic medicine is considered by the medical profession to be ineffective and possibly harmful, raising ethical issues about its practice.”[8][9]

Citation

  - Violates neutral point of view- This is an article written by someone who, according to Wikipedia, is an “active skeptic” and “outspoken critic of naturopathy”. Understandably, the author writes from a biased perspective. He often uses loaded language, draws inaccurate and unverified conclusions from the sources he cites, and states his opinions as facts. After the article was published, so many letters written to the author and
publisher that the author wrote a second article to address the different complaints he received.


  - Unable to access via PubMed

  - This is incorrectly cited because there is no mention of naturopaths on page 197. However, there is a portion of a later passage (p. 318) which technically supports the original point, stating, “Many naturopaths are against mainstream medicine and advise their patients accordingly— for instance many are not in favour of vaccination.” However, this is not true of the majority of Naturopathic Doctors (the topic of vaccination is addressed elsewhere in this document).
  - Access here: [https://books.google.com/books?id=5m6CKTEr3IoC&printsec=frontcover&dq=Trick+or+Treatment:+The+Undeniable+Facts+about+Alternative+Medicine&hl=en&sa=X&ved=0ahUKEwj5z8SdwOVTAhVJ22MKHRA3Aw0QwUULTAB#v=onepage&q=naturopath&f=false](https://books.google.com/books?id=5m6CKTEr3IoC&printsec=frontcover&dq=Trick+or+Treatment:+The+Undeniable+Facts+about+Alternative+Medicine&hl=en&sa=X&ved=0ahUKEwj5z8SdwOVTAhVJ22MKHRA3Aw0QwUULTAB#v=onepage&q=naturopath&f=false)

**Wikipedia Violations**

- Violates neutral point of view—Fails to provide unbiased, balanced information that is representative of the majority of naturopathic doctors. Also, attempts to speak for the entire “medical profession”.
- Inappropriate content placement—This is a criticism of the page’s topic which is not appropriate content to include in the lead section of an article. If a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.
- Violates original research—Cites biased perspective article with author’s personal interpretations.

**Accurate, Verified Information**

- NDs are highly valued members of integrative medical teams in hospitals and clinics.

- They also serve in core leadership and educational staff positions alongside other medical professionals in organizations such as Institute for Functional Medicine, Academy of Integrative Health & Medicine, and Integrative Health Policy Consortium.
  - Sources: [https://www.functionalmedicine.org/AboutFM/ourteam/staff/](https://www.functionalmedicine.org/AboutFM/ourteam/staff/) [https://www.aihm.org/about/staff/](https://www.aihm.org/about/staff/) [http://www.ihpc.org/leadership/](http://www.ihpc.org/leadership/)

- Cancer Treatment Centers of America employs Naturopathic Doctors and funds residency positions for recent graduates.
6. Inaccurate statement: “In addition to accusations from the medical community, such as the American Cancer Society, naturopaths and naturopathic doctors have repeatedly been accused of being charlatans and practicing quackery.”

Citation

  - Could not access page 117. However, from what could be accessed (p. 116, 118-119), there was absolutely nothing that even suggested any kind of accusation (the definition of accusation is to claim that someone has done something illegal or wrong). This book just describes a neutral overview of naturopathic medicine, and describes some pros and limitations in considering it for adjunctive cancer care.

  - Violates neutral point of view- This is an article written by someone who, according to Wikipedia, is an “active skeptic” and “outspoken critic of naturopathy”. Understandably, the author writes from a biased perspective. He often uses loaded language, draws inaccurate and unverified conclusions from the sources he cites, and states his opinions as facts. After the article was published, so many letters written to the author and publisher that the author wrote a second article to address the different complaints he received.

  - Supports the statement because it is criticism article. It is written by the same person who wrote the article above.
  - [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1140750/#](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1140750/#)
  - Notes from article:
    - "Mr. Gagnier's understanding of biological plausibility is almost incoherent. He writes, “many therapies used in medicine today were discovered through serendipitous findings in unrelated research.”[4] This is true, but unrelated to the issue of plausibility. Then he writes, “therefore, efficacy of an intervention may be
shown irrespective of a known biological mechanism,” which does not follow from the first sentence, even if it is true; and it also has nothing to do with plausibility. We might all agree that aspirin is an example of a medicine whose efficacy was shown irrespective of a known biological mechanism. But a “known biological mechanism” is not the same thing as biological plausibility. Aspirin was perfectly plausible at the time of its introduction in the late 19th century, because it was a chemical that could interact with biochemical processes. That those exact processes were not known for many decades did not make aspirin any less plausible. Compare this with the myriad naturopathic claims that I’ve already cited. Many of them are known to be absurd (oxygen traversing skin, wet compresses aborting strokes, water “memory,” the iris manifesting a homunculus, “transfer of neural energy” [ie, psychokinesis], etc.); others are highly implausible and easily explained by ordinary mechanisms (applied kinesiology by ideomotor action, colonic “cleansing” by the norm of reciprocity, etc.); and still others are barely plausible but highly unlikely and dangerous and, unlike aspirin, are without any empirical support (eg, St. John’s wort as an anti-HIV drug).”- uses examples I have never learned about in my Naturopathic Medicine curriculum.

**References:**

  - Supports the statement because it is an opinion/criticism article.
  - Places large emphasis on sources from 1970 and 1989 in its introduction.
  - http://www.quackwatch.org/01QuackeryRelatedTopics/Naturopathy/naturopathy.html
  - Notes from article:
    - “Naturopathy, sometimes referred to as "natural medicine," is a largely pseudoscientific approach said to "assist nature" [1], "support the body's own innate capacity to achieve optimal health" [2], and "facilitate the body's inherent healing mechanisms." [3] Naturopaths assert that diseases are the body's effort to purify itself, and that cures result from increasing the patient's "vital force." They claim to stimulate the body's natural healing processes by ridding it of waste products and "toxins." At first glance, this approach may appear sensible. However, a close look will show that naturopathy's philosophy is simplistic and that its practices are riddled with quackery [4].
    - The notion of a "vital force" or "life force"—a nonmaterial force that transcends the laws of chemistry and physics—originated in ancient times. Historians call it the doctrine of vitalism. No scientific evidence supports this doctrine, but a huge body of knowledge, including the entire discipline of organic chemistry, refutes it.”
    - “According to a comprehensive report presented to the United States Congress in 1970 by the now-defunct National Association of Naturopathic Physicians (NANP):”
      - “The American Association of Naturopathic Physicians (AANP) has stated that "naturopathic medicine has its own unique body of knowledge, evolved and refined for centuries" and is "effective in treating all health problems, whether acute or chronic." [5] According to a 1989 AANP brochure:"
      - "Pizzorno's book Total Wellness: Improve Your Health By Understanding Your Body's Healing Systems contains a chapter titled "Strengthen Your Immune System," in which the following anecdote is used to illustrate how naturopaths regard "immune suppression" as an underlying cause of disease: Several years ago I began to develop large warts on several of my fingers. Warts are an interesting phenomenon; they tend to grow or recede according to how well the immune system is functioning. Although I treated them several times with thuja oil (a standard naturopathic treatment for warts), they had not responded"
very well. I was perplexed because I was living a pretty healthful lifestyle and using a therapy I'd used successfully for a lot of patients. Then I visited the dentist. As I've only had one cavity, I hadn't been to the dentist for several years. Surprisingly, X-rays revealed an abscess in that one tooth—the filling had not been sealed properly. A week of antibiotics cleared the infection, and within three months all my warts were gone. Even though I had had no other symptoms, the abscess was continually draining my immune system. [30] Any sensible preventive dental-care program should include visits every 6-12 months for professional cleaning (to remove gumline calculus to prevent gum disease), a check for early signs of tooth decay (cavities), and occasional x-ray examination to look for hidden problems. How come Pizzorno—despite all his talk about prevention—does not believe he should have dental check-ups like the rest of us? What does it mean that he permitted large warts to develop on his fingers without seeking medical treatment? (You can decide this for yourself.) Did fixing the abscess actually lead to the disappearance of the warts? I doubt that this has been scientifically studied. However, it is well known that most common warts disappear spontaneously within two years or can be effectively removed with simple, nonscarring medical treatment [31].”

  - Supports the statement because it’s an opinion/criticism article.
  - It’s an Australian article and seems to be talking about lay naturopaths.
  - Note from article:
    - “IF you take your child to a naturopath, there’s something wrong with you. I mean, something really wrong — way wronger than the ingrown toenail or funny rash or, I don’t know, acute lymphoblastic leukaemia you are seeking treatment for. Because — well, let’s be honest. Naturopaths are quacks. So are chiropractors*, traditional Chinese herbalists, iridologists, palm-readers, homeopaths, Bowen therapists and reiki practitioners. Quack, quack, quack.”

  - Supports the statement because it is an opinion/criticism article.
  - Article is from the UK and seems to be referring to traditional, lay naturopaths since the therapies described are not included in naturopathic medical school curriculums.
  - Notes from article:
    - "As it happens, the London Natural Therapies group, which the piece citest as a source of all this healing, has been [censured before](https://www.asa.org.uk/) by the Advertising Standards Authority for making unsupported claims about their ‘live blood analysis’, which is supposed to tell whether your liver cells are singing in the right key or whatever. But still, the question is wider than just that group: does naturopathy work? Short answer: of course not, don’t be ridiculous. The long answer is a bit more involved:"
    - "We can look at the different bits one by one, though. Biopuncture is definitely nonsense, because it involves homeopathy, and homeopathy is nonsense. Bioresonance is, as alternative medicine researcher Edzard Ernst [put it](http://www.asa.org.uk/), ‘an attempt to present nonsense as science’ and live blood analysis is, as the ASA has wisely noted, also nonsense. Acupuncture is likely a placebo ([according to](http://www.asa.org.uk/), again, the splendid Dr Ernst). And I haven’t got the energy to find out what
oxyvenation and infusion therapy are, but I’d say it’s looking pretty bad for naturopathy at this stage.”

  - Supports the statement because it’s an opinion/criticism article. Most of the criticism is focused on homeopathy.
  - Article is from Canada.
  - Notes from article:
    - “Allow me to lay my admittedly love-of-science, rant-tainted cards on the table. In general, the services provided by naturopaths reside either in the realm of commonsense lifestyle advice (get lots of sleep, eat well and stay active) or they have little empirical evidence to support their use. In fact, many naturopathic practices are based on a semi-spiritual theory (the healing power of nature), and have no foundation in science. They reside largely in the realm of pseudoscience.”

Wikipedia Violations

- Violates neutral point of view- Fails to provide unbiased, balanced information that is representative of the majority of naturopathic doctors. There is no mention of the large number of people in the medical community who are great supporters of NDs. There is also no effort made to differentiate between NDs and lay naturopaths.
- Violates validity (depending on what is stated on p. 117 of the American Cancer Society source) by stating that the American Cancer Society has made accusations and then citing a source that provides no support of that. This makes the statement particularly misleading and malevolent because this was used as the one example in the sentence: “In addition to accusations from the medical community, such as the American Cancer Society, [10].”
- Includes criticism of the page’s topic which is not appropriate content to include in the lead section of an article. If a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.

Accurate, Verified Information

- Unfortunately, there is certain amount of confusion that exists in a minority of the medical community who have been misinformed about the training and practice of naturopathic medicine. This confusion is perpetuated by biased critics whose goal is to defame the profession. In their critiques, they cite or refer to outdated and/or invalid information that does not represent modern naturopathic medicine as a whole. The incorrect, biasedly-interpreted information is then seen and cited by others, continues to spread, and leads to the incorrect and disrespectful representation of modern-day Naturopathic Medicine in the United States. That is why it is so important that a source such as Wikipedia offer a clear and unbiased description of Naturopathic Medicine. Wikipedia is considered a reliable source to many and if effort is not made to correct the violations, it will continue to propagate confusion, and will lead to distrust in the reliability of Wikipedia as a whole.
- Example of an unbiased page on Osteopathic Medicine:
1. Inaccurate statement: “Over the years, many practitioners of naturopathic medicine have been found criminally liable in the courts of law around the world. In some countries, it is a criminal offense for naturopaths and naturopathic doctors to label themselves as medical professionals.”

Citation
None

Wikipedia Violations

- Violates validity- no citation
- Violates neutral point of view
- Does not align with content that would be appropriate/relevant to include in a lead section because would not be representative of a large professional majority.

SECTION: History

1. Biased statement: “In 2015, a former naturopathic doctor, Britt Marie Hermes, began writing critically about her experience being trained in and practicing naturopathic medicine.”

Wikipedia Violation

The History section is an odd and inappropriate place to point to a single critic of a profession. In fact, there are no mentions of any critics of licensed medical professions such as DOs and MDs on pages describing those practices of medicine.

SECTION: Practice

Wikipedia Violation

This section provides very little clear information on concepts that are core to the practice of naturopathic medicine, such as the guiding principles, determinants of health and the therapeutic order. In fact, these core features of naturopathic medicine are not mentioned anywhere on the entire page. For greater clarity, figures summarizing the determinants of health and the therapeutic order: hierarchy of healing are provided below (principles of naturopathic medicine provided earlier on page 3).
1. Inaccurate statement: “Naturopaths aim to prevent illness through stress reduction and changes to diet and lifestyle, often rejecting the methods of evidence-based medicine.”

<table>
<thead>
<tr>
<th>Citations</th>
</tr>
</thead>
</table>

  - This is a “Perspectives” article from 2006
  - Statements refer to “traditional naturopathy” rather than modern naturopathic medicine
  - Https://books.google.com/books?id=cplSCgAAQBAJ&pg=PA587&dq=Naturopathy%3A+Practice+Issues+in+Clark%2C+Carolyn+C%3B%3B+Gordon%2C+Rena+J%3B%3B+Encyclopedia+of+Complementary+Health+Practice&hl=en&sa=X&ved=0ahUKEwiCh6vU9tmnTAhVlr1QKHFBE8oQ6wEIlzAA#v=onepage&q&f=false
  - Unable to access pp. 57-59 in google ebook
Wikipedia Violation

- Violates neutral point of view by citing a perspective/personal opinion article.
- Violates verifiability- The author either failed to consult enough valid resources to find out that NDs training includes learning about standards of care and evidence based medicine (EBM), or is attempting to depict NDs in a radical biased way. Also, EBM and prevention of illness through stress reduction and dietary and lifestyle change, are not mutually exclusive. Therefore, the statement inherently contradicts itself, making it invalid.

Accurate, Verified Information

- The practice of naturopathic medicine includes modern and traditional, scientific, and empirical methods.”
  o Source: AANP [http://www.naturopathic.org/content.asp?contentid=59]

2. Inaccurate statement: “Many naturopaths present themselves as primary care providers, and some naturopathic physicians may prescribe drugs, perform minor surgery, and integrate other conventional medical approaches such as diet and lifestyle counselling with their naturopathic practice.”[26][45]

Citations

  o This is a neutral source and a good example of what a neutral, encyclopedia article would be expected to look like. It doesn’t say anything about NDs “presenting” themselves as PCPs versus just being PCPs.
  o http://www.encyclopedia.com/medicine/divisions-diagnostics-and-procedures/medicine/naturopathic-medicine
  o Notes on article:
    - "Naturopaths are general practitioners who treat a wide variety of illnesses. They believe in treating the “whole person”—the spirit as well as the physical body—and emphasize preventive care. They often recommend changes in diet and lifestyle to enhance the health of their patients."

  o This is a reliable source.
  o The Council on Naturopathic Medical Education (CNME) document specifically states under “Clinical Requirements” in the “Clinical Education” section, that “The clinical education program provides each student with: a. The medical skills, knowledge, experience, and critical judgment ability necessary for the diagnosis, treatment, management, and referral-making appropriate for safe and effective practice as a primary care naturopathic physician”
  o This source supports the point that all naturopathic medical students are trained to provide primary care, and that it is the core focus of their education. Thus, the author of the Wikipedia page appears to be using the phrase “present themselves” in a strategically condescending way.
  o Notes article:
    - “The clinical education program provides each student with: a. The medical skills, knowledge, experience, and critical judgment ability necessary for the diagnosis, treatment, management, and referral-making appropriate for safe and effective practice as a primary care naturopathic physician; b. A clinical experience that integrates naturopathic principles into every clinical interaction; c. The attitudes and behaviors necessary to establish effective professional relationships with patients,"
Institute for Natural Medicine

Wikipedia Violation

- Violates neutral point of view ("present themselves as" PCPs, instead of many NDs "are" PCPs.)
- The statement also seems to contradict the one made just before it. Taken together, the two statements lead to the reader to a confusing conclusion that NDs are "often rejecting the methods of evidence-based medicine", and yet somehow simultaneously prescribing drugs and performing minor surgery.

Accurate, Verified Information

- Many naturopathic doctors serve as primary care providers to their patients. In fact, a 2014 report on patient experience with Primary Care Providers in the Puget Sound region of WA, spanning 5 counties, found the Bastyr Center for Natural (associated with the naturopathic medical school at Bastyr University) ranked among the highest in overall patient satisfaction and patient communication.
- “Naturopathic medicine is a distinct primary health care profession, emphasizing prevention, treatment, and optimal health through the use of therapeutic methods and substances that encourage individuals’ inherent self-healing process. The practice of naturopathic medicine includes modern and traditional, scientific, and empirical methods.”
  - Source: AANP (http://www.naturopathic.org/content.asp?contentid=59)
- “Naturopathic practice includes the following diagnostic and therapeutic modalities: clinical and laboratory diagnostic testing, nutritional medicine, botanical medicine, naturopathic physical medicine (including naturopathic manipulative therapy), public health measures, hygiene, counselling, minor surgery, homeopathy, acupuncture, prescription medication, intravenous and injection therapy, and naturopathic obstetrics (natural childbirth).”
  - Source: AANP (http://www.naturopathic.org/content.asp?contentid=59)

Citations

  - This is incorrectly cited because there is no mention of naturopaths on page 197. However, there is a portion of a later passage (p. 318) which technically supports the original point.
  - The passage states: “Consulting a naturopath is not fundamentally different from seeing a conventional doctor, inasmuch as a diagnosis will be made by taking the patient’s
history and a physical examination. The main difference lies in the nature of the prescriptions. Naturopaths do not prescribe synthetic drugs.”

- Access here: https://books.google.com/books?id=5m6CKTEr310C&printsec=frontcover&dq=Trick+or+Treatment%3A+The+Undeniable+Facts+about+Alternative+Medicine&hl=en&sa=X&ved=0ahUKEwj5z8SdwOvTAhVJ22MKHRA3Aw0QuwUILTAB#v=onepage&q=nuatropath&f=false

Wikipedia Violation
- Violates verifiability:
  - Lacks clarity- The author provides no differentiation between licensed naturopathic doctors and lay naturopaths, and neither does the source they cite.
  - Statement is not true of licensed naturopathic doctors, who are trained to prescribe a wide range of medications.

Accurate, Verified Information
- The Naturopathic Academy of Primary Care Physicians has taken a clear pro-immunization position.
- Excerpts from the Naturopathic Academy of Primary Care Physicians Position Paper on Immunizations:
  - “The Naturopathic Academy of Primary Care Physicians takes a clear pro-immunization position, with the understanding that there may be differences of opinion and dissent in both naturopathic and conventional medical communities and recommends that naturopathic physicians know, understand, and follow the immunization guidelines appropriate for the individual patient, and consistent with immunization regulations of local, state and federal jurisdictions.”
  - “Naturopathic physicians should recommend, provide, or refer for appropriate immunizations according to CDC’s childhood immunization or catch-up schedules.”
  - “Naturopathic physicians should provide a copy of the official CDC immunization schedule and standard written informed consent for the patient or parent to sign, stating they understand the risks if there is variance from the CDC’s immunization schedule. If a patient receives immunizations outside the medical home, necessary details should be accurately recorded for those immunizations in order to track a patient’s immunization status in accordance with state laws.”
  - “Naturopathic physicians who have patients with symptoms that are believed to be due to immunization adverse effects have a duty to report this to the Vaccine Adverse Event Reporting System.”
- “Many families are removed from or refused entry to medical practices due to their immunization hesitation, resistance, or requests for an alternative immunization schedule, and they therefore may seek out naturopathic physicians for care and guidance. This situation places naturopathic physicians in an opportune position to provide information and immunization coverage to those patients who might otherwise receive no immunizations at all.”

SECTION: Practice

SUBSECTION: Methods
1. Inaccurate statement: “Naturopaths are often opposed to mainstream medicine and take an antivaccinationist stance.”

Citations

  - This is incorrectly cited because there is no mention of naturopaths on page 197. However, there is a portion of a later passage (p. 318) which technically supports the original point.
  - The passage states: “Consulting a naturopath is not fundamentally different from seeing a conventional doctor, inasmuch as a diagnosis will be made by taking the patient’s history and a physical examination. The main difference lies in the nature of the prescriptions. Naturopaths do not prescribe synthetic drugs.”
  - Access here: https://books.google.com/books?id=5m6CKTER3IOC&printsec=frontcover&dq=Trick+or+Treatment%3A+The+Undeniable+Facts+about+Alternative+Medicine&hl=en&sa=X&ved=0ahUKEwj5z8SdwOThjEn&usg=ACVnev9hYJ5iV8VWz7S6-Eg5j1oTMLRr8Q

Wikipedia Violation

- Violates verifiability:
  - Lacks clarity- The author provides no differentiation between licensed naturopathic doctors and lay naturopaths, and neither does the source they cite.
  - Statement is not true of licensed naturopathic doctors, who are trained to prescribe a wide range of medications, including vaccine administration.

Accurate, Verified Information

- The Naturopathic Academy of Primary Care Physicians has taken a clear pro-immunization position.
- Excerpts from the Naturopathic Academy of Primary Care Physicians Position Paper on Immunizations:
  - “The Naturopathic Academy of Primary Care Physicians takes a clear pro-immunization position, with the understanding that there may be differences of opinion and dissent in both naturopathic and conventional medical communities and recommends that naturopathic physicians know, understand, and follow the immunization guidelines appropriate for the individual patient, and consistent with immunization regulations of local, state and federal jurisdictions.”
  - “Naturopathic physicians should recommend, provide, or refer for appropriate immunizations according to CDC’s childhood immunization or catch-up schedules.”
  - “Naturopathic physicians should provide a copy of the official CDC immunization schedule and standard written informed consent for the patient or parent to sign, stating they understand the risks if there is variance from the CDC’s immunization schedule. If a patient receives immunizations outside the medical home, necessary details should be accurately recorded for those immunizations in order to track a patient’s immunization status in accordance with state laws.”
  - “Naturopathic physicians who have patients with symptoms that are believed to be due to immunization adverse effects have a duty to report this to the Vaccine Adverse Event Reporting System.”
  - “Many families are removed from or refused entry to medical practices due to their immunization hesitation, resistance, or requests for an alternative immunization schedule, and they therefore may seek out naturopathic physicians for care and guidance. This
situation places naturopathic physicians in an opportune position to provide information and immunization coverage to those patients who might otherwise receive no immunizations at all.”


Subsection: Evidence Basis

Wikipedia Violation Overview

- Continues to alternate between statements about licensed naturopathic doctors, and lay naturopaths in different countries. This makes it very unclear to the reader as to how education level and country of practice factor into the broad and violation-ridden statements.
- The entire subsection violates Wikipedia’s principal content policy of neutral point of view. Neutrality should be maintained within each sentence, and also, within each section, to guide what content is featured. This section gives undue weight to a minority perspective in depth of detail and quantity of text. In fact, not one sentence provides any information on evidence for anything that licensed Naturopathic doctors do.

1. Inaccurate statement: “Naturopathy lacks an adequate scientific basis, and it is rejected by the medical community.”

Citations

  - This is a “Perspectives” article from 2006
  - Statements refer to “traditional naturopathy” rather than modern “Naturopathic Medicine”

Wikipedia Violation

- Violates neutral point of view and verifiability by attempting to speak for the entire “medical community”, and citing perspective/personal opinion article.
  - This is a criticism of the section’s topic which is not appropriate content to include in this section of an article. If a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.

Accurate, Verified Information

- Evidence based practice principles are at the core of the training to prepare graduates from AANMC accredited naturopathic medical schools to be experts in integrative medicine. Each of the 7 accredited schools, across 8 campuses in North America hosts a research center dedicated to investigating integrative therapies and advancing the training of students, along with the profession as a whole.
  - Sources:
    - https://www.nuhs.edu/research/evidence-based-practice/
    - https://www.nuhs.edu/research/
    - http://bastyr.edu/research
    - http://hellgott.nunm.edu/
    - https://www.scnm.edu/academics/doctor-of-naturopathic-medicine/research/
    - https://binm.org/about/research/
    - http://www.bridgeport.edu/research/
    - http://www.ccnm.edu/research
• NDs are highly valued members of integrative medical teams in hospitals and clinics.
  o Sources:

• NDs serve in core leadership and educational staff positions alongside other medical professionals in organizations such as Institute for Functional Medicine, Academy of Integrative Health & Medicine, and Integrative Health Policy Consortium.
  o Sources:
    ▪ [https://www.functionalmedicine.org/AboutFM/ourteam/staff/](https://www.functionalmedicine.org/AboutFM/ourteam/staff/)
    ▪ [https://www.aihm.org/about/staff/](https://www.aihm.org/about/staff/)
    ▪ [http://www.ihpc.org/leadership/](http://www.ihpc.org/leadership/)

• Cancer Treatment Centers of America employs Naturopathic Doctors and funds residency positons for recent graduates.
  o Sources:

2. Inaccurate statement: “Natural substances known as nutraceuticals show little promise in treating diseases, especially cancer, as laboratory experiments have shown limited therapeutic effect on biochemical pathways, while clinical trials demonstrate poor bioavailability.”[52]

Citations

  o This article reflects on the advantages and challenges associated with nutraceutical use in cancer therapy:
    ▪ “Again, pleiotropic agents, such as nutraceuticals, are our best option, because of their reported activity against virtually every single cancer-relevant signaling pathway [31,32,33,34,35,36,37], but most importantly, for their attributes as non-toxic agents. Therefore, naturopathy would likely become a new arsenal for combating the fight against cancers.”
  o The article specifically concludes:
    “All of this knowledge has led to advocating the use of combinational therapies or the use of pleiotropic agents, such as naturally occurring anticancer agents of dietary origin, to achieve better treatment outcomes for patients diagnosed with cancers. To that end, nutraceuticals have shown great promise in in vitro studies, but have fallen short in translational studies. The bioavailability of nutraceuticals remains a major concern. One way of overcoming this issue is through the synthesis of novel analogs of established nutraceuticals. A number of novel nutraceuticals are under investigation in our laboratory and others throughout the world, and thus, quick and efficient screening of new and existing compounds will be the key to finding chemical structure(s) that can be used in the future for the clinical management of human cancers, which clearly support naturopathy as a tool for modern medicine.”
  o [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4303842/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4303842/)
Inaccurate statement: “Kimball C. Atwood IV writes, in the journal Medscape General Medicine, Naturopathic physicians now claim to be primary care physicians proficient in the practice of both ‘conventional’ and ‘natural’ medicine. Their training, however, amounts to a small fraction of that of medical doctors who practice primary care. An examination of their literature, moreover, reveals that it is replete with pseudoscientific, ineffective, unethical, and potentially dangerous practices.⁶”

Citations

“The **general educational structure** for naturopathic doctors is comparable to that of conventional medical doctors (MDs) and osteopathic doctors (DOs). In all three medical programs, the first year emphasizes biomedical sciences such as anatomy and biochemistry. Second year classes focus on the diagnostic sciences, including areas such as evidence-based medicine and physiological assessment. All programs progressively increase students’ problem-based learning and integrated coursework, enabling students to learn how different concepts affect one another.

After the first two years, the curricula of the three medical programs focus on applying medical knowledge to real-life situations with simultaneous classroom studies supporting this training. Third- and fourth-year naturopathic medical students have opportunities for hands-on clinical training and practice, often at their schools’ teaching clinics and off-site clinics. This period of clinical training is essential to these students’ education—so much so that clinical training is now being introduced during the first and second years of education at several AANMC-member schools. As a result, naturopathic medical students graduate with experience in diagnosing and treating patients, even before they begin formal practice.

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A major difference between the training of the MDs and naturopathic doctors is medical residencies. MD residencies are mandated and regulated by conventional medical schools. As a result, many opportunities for residencies exist at a wide variety of medical facilities and are funded by the federal government.

Naturopathic medical residencies are not nearly as common because they are not yet required by most states (Utah is an exception) or funded by the federal government. In place of a residency, many new naturopathic doctors choose to practice with or shadow an experienced doctor before setting up their own practices.”

- Source: [http://www.naturopathic.org/natfaqs](http://www.naturopathic.org/natfaqs)

**4. Inaccurate statement:** “In another article, Atwood writes that ‘Physicians who consider naturopaths to be their colleagues thus find themselves in opposition to one of the fundamental ethical precepts of modern medicine. If naturopaths are not to be judged ‘nonscientific practitioners’, the term has no useful meaning’. [11]

**Citations**


**Wikipedia Violations**

- Violates neutral point of view- While this article was published by a reputable source, it’s written in an overtly biased tone that is more reflective of an opinion piece. It’s written by the same author.
who was quoted in the previous statement and is a known critic of naturopathic medicine. The quote taken from the article is placed in the “Evidence Basis” sub-section without any further explanation. Thus, it is likely to confuse and also misinform readers.

- According to Wikipedia’s “principles to achieve the level of neutrality that is appropriate for an encyclopedia” the following principle is being violated:
  - **Indicate the relative prominence of opposing views.** Ensure that the reporting of different views on a subject adequately reflects the relative levels of support for those views, and that it does not give a false impression of **parity**, or give **undue weight** to a particular view. For example, to state that “According to Simon Wiesenthal, the Holocaust was a program of extermination of the Jewish people in Germany, but David Irving disputes this analysis” would be to give apparent parity between the supermajority view and a tiny minority view by assigning each to a single activist in the field.

### Accurate, Verified Information

- The author of the article, *Naturopathy: A critical appraisal* received a large number of emails/letters from MDs, NDs, other health care professionals, and researchers who took issue with the biased nature of the article. Many were disappointed that Medscape would allow such a clearly biased and inaccurate article to be published. Some of the most common points made by those who contacted the author included strong concerns surrounding:
  - Overall bias and inaccurate/misinformed depiction of naturopathic medicine
  - Use of sweeping generalizations and loaded language
  - Drawing misguided conclusions from sources cited, and frequently stating opinion as fact.
  - Sources:

- Evidence based practice principles are at the core of the training to prepare graduates from AANMC accredited naturopathic medical schools to be experts in integrative medicine. Each of the 7 accredited schools, across 8 campuses in North America hosts a research center dedicated to investigating integrative therapies, and advancing the training of students and the profession as a whole.
  - Sources:
- “Naturopathic medicine is a distinct primary health care profession, emphasizing prevention, treatment, and optimal health through the use of therapeutic methods and substances that encourage individuals’ inherent self-healing process. The practice of naturopathic medicine includes modern and traditional, scientific, and empirical methods.”
  o Source: AANP (http://www.naturopathic.org/content.asp?contentid=59)
- According to the American Medical Student Association (AMSA), “Naturopathic medicine is a distinct method of primary health care that incorporates CAM (Complementary and Alternative Medicine) and conventional medical therapies and diagnostics. Naturopathic physicians are trained in conventional medical sciences including physical examination, lab diagnosis, pharmacology and minor surgery, as well as safe and evidence-based CAM therapies.”
  o Source: http://www.amsa.org/what-is-naturopathic-medicine/
- Some Naturopathic Doctors are so passionate about evidence based medicine (EBM) that they've committed themselves to enhancing the education of medical students, NDs, and other health care professionals in EBM. For example, Dr. Joshua Goldenberg, a ND, researcher, and professor, founded the organization “Dr. Journal Club”, which offers EBM training and resources to its members. Recently, Dr. Journal Club established a partnership with the Institute for Functional Medicine (IFM), an organization made up of conventional and integrative healthcare professionals, to offer them access to further training in EBM.
  o Sources:
    ▪ https://drjournalclub.com/ebm-skills/
- A 2013 study published in the International Journal of Naturopathic Medicine found that naturopathic doctors “increasingly embrace evidence based medicine as part of their practice”.
  o Source: http://bastyr.edu/news/general-news-home-page/2013/08/naturopathic-doctors-adopt-evidence-based-medicine-study-finds (This is a Bastyr News Article which summarizes the findings and contains a link to the original study. The original study itself contains a lot of direct quotes from NDs. Since there are some quotes in there from NDs who are less enthused about EBM, it may actually be counterproductive to highlight this study, since critics would probably like to use it. Just wanted to acknowledge that it’s out there.)

Subsection: Safety of Natural Therapies

Wikipedia Violation Overview

This section violates neutral point of view and also demonstrates once again that the editor is widely uninformed and/or misinformed about core concepts within naturopathic medicine. There is no mention of current research into safety of certain natural products, such as vitamins or herbs. The treatments referenced are not representative of the wide range of therapies used by licensed NDs, who are not trained in rolfing or iridology. Once again, the editor makes no effort to make clear distinctions between which statements apply to lay naturopaths and licensed naturopathic doctors who attend naturopathic medical schools.

1. Inaccurate statement: “Naturopaths often recommend exposure to naturally occurring substances, such as sunshine, herbs and certain foods, as well as activities they describe as natural, such as exercise, meditation and relaxation. Naturopaths claim that these natural
treatments help restore the body’s innate ability to heal itself without the adverse effects of conventional medicine.”

Citation:
None

Wikipedia Violation

• Violates verifiability- “Naturopaths claim that these natural treatments help restore the body’s innate ability to heal itself without the adverse effects of conventional medicine.”

Accurate, Verified Information

• Licensed NDs have been trained to understand conventional standards of care, and use this to inform their practice of personalized medicine, in which they make customized recommendations aimed at treating the whole person and addressing the root cause. In doing so, they aim to select an intervention that will be the least invasive, and most effective. Depending on the patient presentation, the recommendations may consist of lifestyle modification, stress reduction, herbal or nutritional supplementation, or prescription medication. As experts in integrative medicine, licensed NDs have been trained extensively to understand and consider known and potential safety concerns of certain natural therapies, and are well versed in drug-herb interactions. Ultimately, the principle of “first do no harm” and “treat the root cause” help guide the approach of determining what therapy will be both safe and effective for the given condition.
  o Sources:
    ▪ http://www.naturopathic.org/natfaqs

2. Inaccurate statements: “Certain naturopathic treatments offered by naturopaths, such as homeopathy, rolfing, and iridology, are widely considered pseudoscience or quackery.[59][60][61]”

“Stephen Barrett of QuackWatch and the National Council Against Health Fraud has stated that naturopathy is "simplistic and that its practices are riddled with quackery".[12] ‘Non-scientific health care practitioners, including naturopaths, use unscientific methods and deception on a public who, lacking in-depth health care knowledge, must rely upon the assurance of providers. Quackery not only harms people, it undermines the ability to conduct scientific research and should be opposed by scientists’, says William T. Jarvis.[63]”

Citations

  o http://www.nsf.gov/statistics/seind02/c7/c7s5.htm#c7s5l2a
  o Supports the statement because it is an opinion/criticism article.
  o Places large emphasis on sources from 1970 and 1989 in its introduction.
  o http://www.quackwatch.org/01QuackeryRelatedTopics/Naturopathy/naturopathy.html


**Wikipedia Violation**

- Violation of validity- licensed NDs are not trained in the use of iridology or rolfing. The editor provides no distinction.
- Violation of neutral point of view - rather than describing what the potential safety concerns might be in relation to the treatments/approaches mentioned, the editor labels them with criticism, injecting personal bias.
- Inappropriate content placement- If a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.
  o According to Wikipedia, the lead section “should define the topic and summarize the body of the article with appropriate weight.” (source: https://en.wikipedia.org/wiki/Wikipedia:List_of_guidelines#Style

**Accurate, Verified Information**

Licensed naturopathic doctors employ many safe and effective therapies supported by evidence. Examples of research-supported botanical and nutraceutical treatments are provided below.

**Botanical Medicine**

- St. John’s wort: Clinical research has found St. John’s wort to be more effective than placebo and as effective as certain prescription antidepressants for treating mild-moderate depression.
- Curcumin: Curcumin works as an anti-inflammatory agent and has be shown to decrease joint pain and improve joint function in patients with osteoarthritis.
Rhodiola: Extract of Rhodiola rosea has been shown to have an anti-fatigue effect, improving mental performance and decreasing cortisol response to stress in patients with fatigue.


Nutraceuticals

- Red Yeast Rice: Certain red yeast rice supplements have been shown to increase good cholesterol and significantly lower triglycerides and bad cholesterol in patients with hyperlipidemia when used for up to 6 months.

- Fish oil: Clinical research has shown that high dose omega 3 fatty acids, found in fish oil, lower triglyceride levels.

- Zinc: When administered within 24 hour of symptom onset, zinc can decrease the severity and duration of the common cold.

- Alpha lipoic acid (ALA): Clinical studies have shown that ALA can prevent the progression of neuropathic impairments in small fiber and muscular function in patients with diabetic neuropathy.
1. Inaccurate statement: “Licensed naturopaths present themselves as primary care providers.\[26\][45] Licensed naturopaths do not receive comparable training to medical doctors in terms of the quality of education or quantity of hours.\[26\][45] “

Citations

  o This is a neutral source and a good example of what a neutral, encyclopedia article would be expected to look like. It doesn’t say anything about NDs “presenting” themselves as PCPs versus just being PCPs.
  o http://www.encyclopedia.com/medicine/divisions-diagnostics-and-procedures/medicine/naturopathic-medicine
  o Notes from article:
    • "Naturopaths are general practitioners who treat a wide variety of illnesses. They believe in treating the “whole person”—the spirit as well as the physical body—and emphasize preventive care. They often recommend changes in diet and lifestyle to enhance the health of their patients."

  o This is a reliable source.
  o The Council on Naturopathic Medical Education (CNME) document specifically states under “Clinical Requirements” in the “Clinical Education” section, that “The clinical education program provides each student with: a. The medical skills, knowledge, experience, and critical judgment ability necessary for the diagnosis, treatment, management, and referral-making appropriate for safe and effective practice as a primary care naturopathic physician”
  o This source supports the point that all naturopathic medical students are trained to provide primary care, and that it is the core focus of their education. Thus, the editor of the Wikipedia page appears to be using the phrase “present themselves” in a strategically condescending way.
  o Notes from article:
    • "The clinical education program provides each student with: a. The medical skills, knowledge, experience, and critical judgment ability necessary for the diagnosis, treatment, management, and referral-making appropriate for safe and effective practice as a primary care naturopathic physician; b. A clinical experience that integrates naturopathic principles into every clinical interaction; c. The attitudes and behaviors necessary to establish effective professional relationships with patients, faculty, colleagues, other professionals and the public; d. The opportunity to treat patients of all ages, and to treat a wide variety of conditions; e. Group forums designed to provide discussion between clinical faculty and students on a variety of clinical subjects and case analyses, with the inclusion of naturopathic principles in all aspects of the forum; f. A firm understanding of medical ethics, cultural and gender sensitivity issues, and the medical consequences of common societal problems; g. A thorough knowledge of charting and patient record maintenance, including legal requirements (e.g., in the U.S., regulations adopted by the Occupational Safety and Health Administration); and h. A thorough knowledge of practice management principles."

  o Violates neutral point of view- This is an article written by someone who, according to Wikipedia, is an “active skeptic” and “outspoken critic of naturopathy”. Understandably, the author writes from a biased perspective. He often uses loaded language, draws inaccurate and unverified conclusions from the sources he cites, and states his opinions as facts. After the article was published, so many letters written to the author and publisher that the author wrote a second article to address the different complaints he received.

This document contrasts training hours between NDs and family physicians. No mention of “unscientific notions” or “diagnoses and treatments that have no factual merit”.

Wikipedia Violation

- Violates neutral point of view- “present themselves as” PCPs, instead of Many NDs “are” PCPs.
- Violates validity- the training of licensed NDs and MDs is comparable in many ways.

Accurate, Verified Information

- Many licensed naturopathic doctors serve as primary care providers to their patients. In fact, a 2014 report on patient experience with Primary Care Providers in the Puget Sound region of WA, spanning 5 counties, found the Bastyr Center for Natural (associated with the naturopathic medical school at Bastyr University) ranked among the highest in overall patient satisfaction and patient communication.

- According to Naturopathic Medicine FAQs: A Service for Consumers offered by the American Association of Naturopathic Physicians (AANP) and the Institute for Natural Medicine (INM):

  “The general educational structure for naturopathic doctors is comparable to that of conventional medical doctors (MDs) and osteopathic doctors (DOs). In all three medical programs, the first year emphasizes biomedical sciences such as anatomy and biochemistry. Second year classes focus on the diagnostic sciences, including areas such as evidence-based medicine and physiological assessment. All programs progressively increase students’ problem-based learning and integrated coursework, enabling students to learn how different concepts affect one another.

  After the first two years, the curricula of the three medical programs focus on applying medical knowledge to real-life situations with simultaneous classroom studies supporting this training. Third- and fourth-year naturopathic medical students have opportunities for hands-on clinical training and practice, often at their schools’ teaching clinics and off-site clinics. This period of clinical training is essential to these students’ education—so much so that clinical training is now being introduced during the first and second years of education at several AANMC-member schools. As a result, naturopathic medical students graduate with experience in diagnosing and treating patients, even before they begin formal practice.

  Third- and fourth-year naturopathic medical students have opportunities for hands-on clinical training and practice, often at their schools’ teaching clinics and off-site clinics. This period of clinical training is essential to these students’ education—so much so that clinical training is now being introduced during the first and second years of education at several AANMC-member schools. As a result, naturopathic medical students graduate with experience in diagnosing and treating patients, even before they begin formal practice.

  A major difference between the training of the MDs and naturopathic doctors is medical residencies. MD residencies are mandated and regulated by conventional medical schools. As a result, many opportunities for residencies exist at a wide variety of medical schools. A major difference between the training of the MDs and naturopathic doctors is medical residencies. MD residencies are mandated and regulated by conventional medical schools. As a result, many opportunities for residencies exist at a wide variety of medical schools.
facilities and are funded by the federal government.

Naturopathic medical residencies are not nearly as common because they are not yet required by most states (Utah is an exception) or funded by the federal government. In place of a residency, many new naturopathic doctors choose to practice with or shadow an experienced doctor before setting up their own practices."

Source: http://www.naturopathic.org/natfaqs

Subsection: Education

1. Incomplete information: “Licensed naturopaths must pass the Naturopathic Physicians Licensing Examinations (NPLEX) administered by the North American Board of Naturopathic Examiners (NABNE) after graduating from a program accredited by the Council on Naturopathic Medical Education (CNME).”

Citations


Wikipedia Violation

- Violates validity- while the statement is mostly correct, it’s incomplete in its description of board exam requirements.

Accurate, Verified Information

- To become a licensed ND, it is required to pass the NPLEX I & II board exams. The NPLEX I is taken after the first 2 years of schooling and covers “topics of anatomy, physiology, biochemistry & genetics, microbiology & immunology, and pathology”. The NPLEX II is taken after graduation, over the course of three days to ensure competency in core clinical sciences, covering “diagnosis (physical, clinical, and lab diagnosis, and diagnostic imaging), materia medica (botanical medicine and homeopathy), other treatment modalities (nutrition, physical medicine, health psychology, and research), and medical interventions (emergency medicine, medical procedures, public health, and pharmacology).”
  - Sources:
    - http://www.naturopathic.org/natfaqs
    - https://www.nabne.org/home/nplex-part-i-biomedical-science-examination/
    - https://www.nabne.org/home/nplex-part-ii-core-clinical-science-examination

2. Inaccurate statement: “Training in CNME-accredited programs includes basic medical diagnostics and procedures such as rudimentary physical exams and common blood tests, in addition to pseudoscientific modalities, such as homeopathy, acupuncture, and energy modalities.”

Citations

  - Violates neutral point of view- This is an article written by someone who, according to Wikipedia, is an “active skeptic” and “outspoken critic of naturopathy”. Understandably,
the author writes from a biased perspective. He often uses loaded language, draws inaccurate and unverified conclusions from the sources he cites, and states his opinions as facts. After the article was published, so many letters written to the author and publisher that the author wrote a second article to address the different complaints he received.

  https://en.wikipedia.org/wiki/Kimball_Atwood
- [1](#) Atwood IV, Kimball. C. (March 26, 2004). "Naturopathy, pseudoscience, and medicine: Myths and fallacies vs truth". Medscape General Medicine. 6 (1): 33. PMC1140750. PMID 15208545.
  - Supports the statement because it is a criticism article. Makes claims that may be true of a lay naturopath but are not true of licensed Naturopathic Doctors. For example, licensed naturopathic doctors are not trained to use iridology, and yet this is a claim that is repeatedly made in statements of the Wikipedia article and sources cited within it. It's written by the same person who wrote the article above.
  - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1140750/
  - Notes from article:
    - "But a “known biological mechanism” is not the same thing as biological plausibility. Aspirin was perfectly plausible at the time of its introduction in the late 19th century, because it was a chemical that could interact with biochemical processes. That those exact processes were not known for many decades did not make aspirin any less plausible. Compare this with the myriad naturopathic claims that I’ve already cited. Many of them are known to be absurd (oxygen traversing skin, wet compresses aborting strokes, water “memory,” the iris manifesting a homunculus, “transfer of neural energy” [ie, psychokinesis], etc.); others are highly implausible and easily explained by ordinary mechanisms (applied kinesiology by ideomotor action, colonic “cleansing” by the norm of reciprocity, etc.); and still others are barely plausible but highly unlikely and dangerous and, unlike aspirin, are without any empirical support (eg, St. John’s wort as an anti-HIV drug)."
  - Supports the statement because it’s an opinion/criticism article.
  - Places large emphasis on sources from 1970 and 1989 in its introduction.
  - http://www.quackwatch.org/01QuackeryRelatedTopics/Naturopathy/naturopathy.html
  - Notes from article:
    - "Naturopathy, sometimes referred to as "natural medicine," is a largely pseudoscientific approach said to "assist nature" [1], "support the body’s own innate capacity to achieve optimal health" [2], and "facilitate the body’s inherent healing mechanisms." [3] Naturopaths assert that diseases are the body's effort to purify itself, and that cures result from increasing the patient's "vital force." They claim to stimulate the body's natural healing processes by ridding it of waste products and "toxins." At first glance, this approach may appear sensible. However, a close look will show that naturopathy's philosophy is simplistic and that its practices are riddled with quackery [4].
    - The notion of a "vital force" or "life force"—a nonmaterial force that transcends the laws of chemistry and physics—originated in ancient times. Historians call it the doctrine of vitalism. No scientific evidence supports this doctrine, but a huge body of knowledge, including the entire discipline of organic chemistry, refutes it."
refined for centuries" and is "effective in treating all health problems, whether acute or chronic." [5] According to a 1989 AANP brochure:

  o This is a reliable source and a good example of what a neutral, encyclopedia article would be expected to look like. It doesn't say anything about only being trained in "rudimentary" physical exams, acupuncture, or "energy modalities".
  o Notes on article:
    - "Naturopaths are general practitioners who treat a wide variety of illnesses. They believe in treating the "whole person"—the spirit as well as the physical body—and emphasize preventive care. They often recommend changes in diet and lifestyle to enhance the health of their patients."

**Wikipedia Violation**

- Violates verifiability- none of the sources contain reliable evidence that the majority of NDs receive training in acupuncture, "energy modalities", or that their training in physical exams is only "rudimentary". Only one ND program in the US contains acupuncture as part of its curriculum. It's also unclear what exactly the editor is referring to when mentioning "energy modalities".
- Neutral point of view- most of the sources used are biased
- No original research- According to Wikipedia “Articles may not contain any unpublished theories, data, statements, concepts, arguments, or ideas; or any new interpretation, analysis, or synthesis of published data, statements, concepts, arguments, or ideas that, in the words of Wikipedia's co-founder Jimbo Wales, would amount to a 'novel narrative or historical interpretation.'”

**Accurate, Verified Information**

- Only one ND program in the country contains acupuncture in its curriculum (SCNM).
  o Source: [https://www.scnm.edu/academics/doctor-of-naturopathic-medicine/therapies/](https://www.scnm.edu/academics/doctor-of-naturopathic-medicine/therapies/)
- In terms of learning about integrative therapies: Licensed NDs are trained and expected to be experts in integrative medicine. That means understanding the most common integrative therapies that are out there to be able to make evidence-informed decisions to determine what will be the safest and most effective treatment approach for the given patient. Thus, it is no surprise that licensed NDs are expected to be familiar with homeopathy among other integrative therapies such as botanical medicine and nutritional medicine.
- Licensed NDs are trained to understand and perform the same level of detail and quality of physical exams as students in conventional medical schools. They use many of the same resources for their education in this area such as *Bates’ Guide to Physical Examination and History Taking*, Stanford 25 ([http://stanfordmedicine25.stanford.edu/](http://stanfordmedicine25.stanford.edu/)) and [http://www.medicalmediasystems.com](http://www.medicalmediasystems.com). In the clinical setting licensed NDs typically spend more time with their patients which may affords them greater opportunity to perform detailed physical exams.
  o Source: [http://bastyr.libguides.com/clinicalportal](http://bastyr.libguides.com/clinicalportal)
- At Bastyr University, all students begin gaining clinical experience in their first year and build on this with more hands-on clinical experience each year: "Naturopathic medicine students immediately gain real-world experience in the classroom as well as in a clinical setting through Bastyr University's integrated, hybrid curriculum. In fall semester of their first year, students begin clinical training as observers at [Bastyr Center for Natural Health](http://www.bastyr.edu/centerfornaturalhealth) in Seattle or [Bastyr University](http://www.bastyr.edu)

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Institute for Natural Medicine 35
In San Diego, allowing them to bring patient stories and real clinical experiences back to the classroom. Each year, the case study discussion classes build on prior years by continually bringing in concepts learned earlier. To help students think more like doctors instead of scientists from the start, disciplines such as anatomy and physiology are combined with case study classes and the clinical experience.”

Available here: https://bastyr.edu/academics/naturopathic-medicine/doctoral/naturopathic-doctorate

- Students at Bastyr University spend their second year completing coursework that provides them with the knowledge and skills required to diagnose a wide range of conditions within each of the different body systems. In fact, the curriculum is organized in such a way that each core clinical course focuses on the same body system at the same time to help students integrate new information and concepts together to optimize learning. Below are course descriptions for some of the core clinical courses taken by all naturopathic medical students in the first quarter of year two:

  - Naturopathic Clinical Diagnosis 1: “This module is the first in the Naturopathic Clinical Diagnosis series. Students develop clinical diagnosis skills in this module, including discussing signs and symptoms, conducting and interpreting physical exams, and ordering and interpreting laboratory medicine and imaging data to formulate a differential diagnosis. Students also learn how to interview, synthesize and organize patient information into a standard and naturopathic medical history. Students address constitution, the integumentary, hematologic and ear/nose/throat systems.” Available here: http://bastyr.smartcatalogiq.com/en/2017-2018/2017-2018-Academic-Catalog/Courses/NM-Naturopathic-Medicine/6000/NM6310

  - Integrated Pathology, Immunology, and Infectious 1- This course includes the histology, physiology and pathology of the immune system, an introduction to infectious diseases, and core principles of pathology. Principles of pathology and immunology are applied in the context of cancer and other immune-related diseases. Pathology, infectious diseases, and applications of immunology to the blood, skin, and musculoskeletal system are included. Scientific concepts are applied to the development of diagnostic skills in the Naturopathic Clinical Diagnosis 1 module that is taken concurrently. Lecture is taught in a hybrid-online format. Available here: http://bastyr.smartcatalogiq.com/en/2017-2018/2017-2018-Academic-Catalog/Courses/BC-Basic-Sciences/6000/BC6107

  - Clinical Diagnosis Lab 1: “In this lab, students develop laboratory medicine skills that include how to perform phlebotomy, standard spun hematocrits, erythrocyte sedimentation rates and other basic hematologic point of care tests.” Available here: http://bastyr.smartcatalogiq.com/en/2017-2018/2017-2018-Academic-Catalog/Courses/NM-Naturopathic-Medicine/6000/NM6320

  - Physical Exam Diagnosis 1: In this lab, students learn how to perform the basic elements of a physical exam on an adult patient. They learn how to recognize, describe and document abnormal findings. In addition, they learn to recognize specific changes in the physical exam as it relates to infants, children, adolescents, pregnancy and geriatrics. During this quarter, they learn how to perform clinically relevant and focused physical exam skills of the head, neck, and integumentary and musculoskeletal systems. Available here: http://bastyr.smartcatalogiq.com/en/2017-2018/2017-2018-Academic-Catalog/Courses/NM-Naturopathic-Medicine/6000/NM6315

3. Inappropriate content placement/inclusion: “These accredited programs have been criticized for misrepresenting their medical rigor and teaching subjects that are antithetical to the best understandings of science and medicine.”
Citations

  - Supports the statement because it is an opinion/criticism article.
  - Places large emphasis on sources from 1970 and 1989 in its introduction.
  - http://www.quackwatch.org/01QuackeryRelatedTopics/Naturopathy/naturopathy.html

  - Independent blog


Wikipedia Violation

- Inappropriate content placement and violates neutral point of view- This is a criticism of the section’s topic which is not appropriate content to include in this section of an article. If a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.

Accurate, Verified Information

- Unfortunately, there is certain amount of confusion that exists in a minority of the medical community who have been misinformed about the training and practice of naturopathic medicine. This confusion is perpetuated by biased critics whose goal is to defame the profession. In their critiques, they cite or refer to outdated and/or invalid information that does not represent modern naturopathic medicine as a whole. The incorrect, biasedly-interpreted information is then seen and cited by others, continues to spread, and leads to the incorrect and disrespectful representation of modern-day Naturopathic Medicine in the United States.

That is why it is so important that a source such as Wikipedia offer a clear and unbiased description of Naturopathic Medicine. Wikipedia is considered a reliable source to many and if effort is not made to correct the violations, it will continue to propagate confusion, and will lead to distrust in the reliability of Wikipedia as a whole.

“CNME is the organization that accredits programs which prepare students to become licensed naturopathic physicians. It is the accrediting agency accepted by the U.S. and Canadian professional associations for licensed naturopathic doctors, and it is the agency recognized by the North American Board of Naturopathic Examiners. CNME is also the only naturopathic accreditor with membership in the Association of Specialized and Professional Accreditors. This organization accepts as members those accreditors recognized by the Secretary of Education or that meet ASPA’s own criteria. Among the almost 50 agencies that belong to ASPA are the recognized accreditors for allopathic (M.D.), osteopathic (D.O.), chiropractic (D.C.), acupuncture, and dental programs. Other naturopathic accrediting agencies accredit correspondence and other schools that do not prepare students to practice as licensed naturopathic physicians. None is recognized by the Secretary of Education, and none of the schools or programs they accredit has institutional accreditation from a recognized regional accrediting agency. Comparing the published standards, policies, procedures, and bylaws of accrediting agencies is one way to determine their differences.”
  - Source: http://www.cnme.org/faq.html

4. Inappropriate content placement/inclusion: “The CNME as an accrediting authority has been characterized as unreliable and suffering from conflicts of interest.”
Citations

  - Unable to access in its entirety.
  - Article is very out of date, being from 1999.


  - Supports the statement because it is a report prepared by the Society for Evidence-Based Medicine aiming to influence the regulation of licensed NDs. The report cites similar sources that have been cited on the Wikipedia page, many of which have been deemed as bias or incorrect. They also refer to the misleading results from the Massachusetts vaccine survey (additional details provided below).
    - It was done in 1998, at which time there was no licensure for NDs in the state. **Hence, they weren't functioning as PCPs to their patients and thus were not managing vaccine administration for patients.** Original results reported by the investigators: “8 (35%) of 23 of HPs and 3 (20%) of 15 of NDs actively recommended immunizations, while 2 HPs (9%) and 1 ND (7%) openly opposed childhood immunizations. The remainder reported that they did not make any recommendations regarding immunization or omitted the question.” This indicates improper reporting because only 4 out of 15 NDs answered the question and that would lead to a result of 75% recommending immunization. The specific study referenced is available at here: [http://jamanetwork.com/journals/jamapediatrics/fullarticle/348533](http://jamanetwork.com/journals/jamapediatrics/fullarticle/348533).
  - Notes from article:
    - While the Legislature set graduation from a school accredited by the CNME and passing the NPLEX as a minimum requirement, the fact that a naturopath has fulfilled these requirements is of limited significance in determining whether patients will be protected from financial or physical harm due to a lack of appropriate education and training.
    - Importantly, there is nothing in the licensing law to indicate that graduating from school and passing the NPLEX was intended to grant carte blanche to naturopaths, prevent further inquiry into the content of that education and training, or set more specific requirements. Indeed, legislative purposes mentioned in the act include maintaining standards in the delivery of naturopathic services to the public and providing a means of identifying qualified naturopathic doctors. The Legislature clearly granted the Board, and by logical extension, the Committee, the authority to look beyond this minimal requirement in regulating naturopaths and to establish (or, in the Committee’s case, recommend) regulations that go beyond those requirements.

Wikipedia Violation

- Inappropriate content placement and violates neutral point of view- This is a criticism of the section’s topic which is not appropriate content to include in this section of an article. If a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.
Accurate, Verified Information

- “CNME is the organization that accredits programs which prepare students to become licensed naturopathic physicians. It is the accrediting agency accepted by the U.S. and Canadian professional associations for licensed naturopathic doctors, and it is the agency recognized by the North American Board of Naturopathic Examiners. CNME is also the only naturopathic accreditor with membership in the Association of Specialized and Professional Accreditors. This organization accepts as members those accreditors recognized by the Secretary of Education or that meet ASPA’s own criteria. Among the almost 50 agencies that belong to ASPA are the recognized accreditors for allopathic (M.D.), osteopathic (D.O.), chiropractic (D.C.), acupuncture, and dental programs. Other naturopathic accrediting agencies accredit correspondence and other schools that do not prepare students to practice as licensed naturopathic physicians. None is recognized by the Secretary of Education, and none of the schools or programs they accredit has institutional accreditation from a recognized regional accrediting agency. Comparing the published standards, policies, procedures, and bylaws of accrediting agencies is one way to determine their differences.”
  - Source: http://www.cnme.org/faq.html

5. Inappropriate content placement/inclusion: “The naturopathic licensing exam has been called a mystery by those outside the naturopathic profession”

Citations

  - Violates original research: Personal opinion article. Supports the statement because it is criticism article. It is written by the same person who has written several criticism articles.
  - Violates original research: Personal opinion/opposition document containing no citations to support claims or conclusions.
  - Tries to apply random snippets of information from different alternative medicine textbooks to what all NDs would automatically do in a given situation. For example, “Naturopathy teaches that strokes in progress can be reversed by cold compresses applied over the carotid arteries.” I have been in Naturopathic medical school for 5 years and have never once heard of this. We follow basic emergency protocols.
  - Contains no specific statement calling the licensing exam “a mystery”
  - Notes from Article:
    - “Consider the fact that naturopathy has one primary textbook with one major author/editor and it will put their academic claims in perspective.”
    - “Superficial trappings of legitimacy, such as the existence of schools, exams, a national organization, boards of certification and licensure in a few states cannot provide protection for the public. These trappings cannot make ineffective and dangerous treatments effective or safe.”

Wikipedia Violation
• Violates original research- cites an opposition document that is filled with personal opinion and contains no citations to support conclusions and claims.

• Inappropriate content placement- This is a criticism of the sections’ topic which is not appropriate content to include in this section of an article. If a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.

• Violates neutral point of view- the editor consistently cites criticism articles and fails to provide readers with neutral, un-biased information.

• Violates original research- cites an opposition document that is filled with personal opinion and contains no citations to support conclusions and claims.

Accurate, Verified Information

• To become a licensed ND, it is required to pass the NPLEX I & II board exams. The NPLEX I is taken after the first 2 years of schooling and covers “topics of anatomy, physiology, biochemistry & genetics, microbiology & immunology, and pathology”. The NPLEX II is taken after graduation, over the course of three days to ensure competency in core clinical sciences, covering “diagnosis (physical, clinical, and lab diagnosis, and diagnostic imaging), materia medica (botanical medicine and homeopathy), other treatment modalities (nutrition, physical medicine, health psychology, and research), and medical interventions (emergency medicine, medical procedures, public health, and pharmacology).”
  o Sources:
    • http://www.naturopathic.org/natfaqs
    • https://www.nabne.org/home/nplex-part-i-biomedical-science-examination/
    • https://www.nabne.org/home/nplex-part-ii-core-clinical-science-examination/

Subsection: Political Activity

Wikipedia Violation Overview

• Violates neutral point of view and contains a large portion of inappropriate content- There are only two sentences in this section which provide the reader with non-biased information on the subsection topic. The remaining statements included in the subsection are specifically critical of the topic and there is no additional information provided to balance the criticism. According to Wikipedia policies, if a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.

• Violates no original research- cites opinion articles

1. Inappropriate content placement/inclusion: “Jann Bellamy has characterized the process by which naturopaths and other practitioners of pseudoscience convince lawmakers to provide them with medical licenses as "legislative alchemy."[91]”

Citations

  o Supports statement because it’s a criticism article.
  o https://sciencebasedmedicine.org/legislative-alchemy-2014-so-far/
Wikipedia Violation

- Inappropriate content inclusion violates neutral point of view- This is a criticism of the section’s topic which is not appropriate content to include in this section of an article. If a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.

Accurate, Verified Information

- NDs seek licensure at the state level so that they are able to safely practice what they have been trained to do. According to the American Medical Student Association (AMSA), "Naturopathic medicine is a distinct method of primary health care that incorporates CAM (Complementary and Alternative Medicine) and conventional medical therapies and diagnostics. Naturopathic physicians are trained in conventional medical sciences including physical examination, lab diagnosis, pharmacology and minor surgery, as well as safe and evidence-based CAM therapies." They go on to state that “naturopathic physicians function as ICAM (Integrative, Complementary, and Alternative Medicine) experts, and are able to combine all of their areas of training into a truly integrated medical practice. Naturopathic physicians can function as primary care physicians in states where they are licensed to do so, or can work alongside conventional physicians to help advise both patients and physicians on the safe and effective use of ICAM.”
  - Source: http://www.amsa.org/what-is-naturopathic-medicine/

- Licensure at the state level is important so that the public can clearly tell a licensed NDs who has completed four or more years of doctoral level clinical training, from an individual who may have completed lesser schooling, but may refer to them self as a naturopathic doctor. According to Naturopathic Medicine FAQs: A Service for Consumers, published jointly by the American Association of Naturopathic Physicians (AANP) and the Institute for Natural Medicine (INM), “Licensure and certification are the highest forms of regulation. They are designed to protect the public by ensuring that certain minimum competency requirements are met. They also set standards for the profession. Currently 19 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands offer licensure or certification for naturopathic doctors. The American Association of Naturopathic Physicians maintains a list of states and territories that license or certify naturopathic doctors.”
  - Source: http://www.naturopathic.org/natfaqs#Licensure & Cert

2. Inappropriate content placement/inclusion: “Since 2005, the Massachusetts Medical Society has opposed licensure based on concerns that NDs are not required to participate in residency and concerns that the “practices” of naturopaths included many “erroneous and potentially dangerous claims.”[92] “

Citations

  - Supports the statement, but it’s out of date due to changes in ND regulation status since 2005.

Wikipedia Violation

- Inappropriate content placement and violates neutral point of view- This is a criticism of the section’s topic which is not appropriate content to include in this section of an article. If a critical
concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.

Accurate, Verified Information

- In January 2017, Massachusetts passed bill to license naturopathic doctors.
- An AANMC press release announcing the Massachusetts governor would be signing the Naturopathic bill into law explains that "under the new law, the terms Naturopathic Doctor and N.D. would be reserved exclusively for those who have attended four-year, post-graduate level programs at institutions recognized by the United States Department of Education. This protects the scope-of-work and title for graduates from an accredited N.D. program, and affords the public safety measures and standards of practice through a licensing board," offers Dr. JoAnn Yanez, executive director of the Association of Accredited Naturopathic Medical Colleges.

3. Inappropriate content placement/inclusion: “In addition to opposing further licensure, she believes that NDs should not be allowed to use the titles "doctor" or "physician,"[38] and be barred from treating children.[95][96] She states: ‘Naturopaths aggressively lobby for laws to issue them medical licenses. I would characterize this political effort as a perverted redefinition of the words ‘physician,’ ‘doctor,’ ‘medical school,’ and ‘residency’ in order to mask the inadequacy of the training provided in naturopathic programs. ND students do not realize that they are taking educational shortcuts and therefore do not possess any demonstrable competencies found in modern medicine.’[97]”

Citations

  - This is an opinion article. Top of page even states, “Opinions expressed by Forbes Contributors are their own”. Supports statement, which is also an opinion.
  - https://www.forbes.com/sites/kavinsenapathy/2016/05/31/why-is-big-naturopathy-afraid-of-this-lone-whistleblower/#153c17d57ee4

- [95]Jim Brown (10 April 2016). "Former naturopathic doctor calls for an end to naturopathic pediatrics". The 180. CBC.
  - Interview with known critic of the profession. Supports the statement which is her criticism/opinion.

  - Article exploring a case in which parents did not take their child to ER, even after ND had front desk tell parents to take child to hospital immediately, concerned about potential meningitis. Instead, according to the article, the parents stopped by the ND practice and purchased echinacea from the dispensary while the doctor was seeing other patients (parents did not have appointment with the doctor). The boy ultimately died, and parents are being put on trial for failing to provide necessities of life to their son. However, increased scrutiny is being placed on the NDs role in the situation.
    - Note from article:
      - “The naturopath has testified she was busy with a patient when Collet called ahead of her visit to the clinic, but that she told a staff member to
tell the mother to take the boy immediately to hospital. She said she remained by the phone long enough to confirm the message was relayed, and that she was never asked if echinacea would be a good treatment for meningitis.”

- “Under cross-examination, the jury heard the naturopath never told police she had stayed by the phone while the advice was passed on. A worker in her clinic also told investigators she introduced the naturopath to Collet when she arrived at the clinic, and described her as the mother of “the little one with meningitis.”


  - Criticism/opinion article. Supports the statement which is her criticism/opinion.
  - http://www.science20.com/britt_marie_hermes/how_a_former_naturopath_can_help_unravel_the_trickery_of_alternative_medicine-175036

Wikipedia Violation

- Inappropiate content placement and violates neutral point of view- This is a criticism of the section’s topic which is not appropriate content to include in this section of an article. If a critical concept is deemed important (applying to the majority) and verifiable enough to include in an article, it should be included in a specific section aimed at addressing any related controversy. In such a section, an author should provide a clear and unbiased description that gives equal weight to different sides, citing verifiable, non-biased sources, which represent the relevant majorities.

- Violates original research by citing opinion articles.

Accurate, Verified Information

- According to Naturopathic Medicine FAQs: A Service for Consumers offered by the American Association of Naturopathic Physicians (AANP) and the Institute for Natural Medicine (INM):

  “The general educational structure for naturopathic doctors is comparable to that of conventional medical doctors (MDs) and osteopathic doctors (DOs). In all three medical programs, the first year emphasizes biomedical sciences such as anatomy and biochemistry. Second year classes focus on the diagnostic sciences, including areas such as evidence-based medicine and physiological assessment. All programs progressively increase students’ problem-based learning and integrated coursework, enabling students to learn how different concepts affect one another.

After the first two years, the curricula of the three medical programs focus on applying medical knowledge to real-life situations with simultaneous classroom studies supporting this training. Third- and fourth-year naturopathic medical students have opportunities for hands-on clinical training and practice, often at their schools’ teaching clinics and off-site clinics. This period of clinical training is essential to these students’ education—so much so that clinical training is now being introduced during the first and second years of education at several AANMC-member schools. As a result, naturopathic medical students graduate with experience in diagnosing and treating patients, even before they begin formal practice.

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with experience in diagnosing and treating patients, even before they begin formal practice.

A major difference between the training of the MDs and naturopathic doctors is medical residencies. MD residencies are mandated and regulated by conventional medical schools. As a result, many opportunities for residencies exist at a wide variety of medical facilities and are funded by the federal government.

Naturopathic medical residencies are not nearly as common because they are not yet required by most states (Utah is an exception) or funded by the federal government. In place of a residency, many new naturopathic doctors choose to practice with or shadow an experienced doctor before setting up their own practices.”

- Source: http://www.naturopathic.org/natfaqs

- According to the Director of Graduate and Community Medicine at Bastyr University, Dr. Gary Garcia, the number of residency positions has been increasing each year. As of fall 2017, there were 132 active residents from three of the top naturopathic medical schools (NUNM, Bastyr University, and SCNM) at 76 different sites.

- Licensure at the state level is important so that the public can clearly tell a licensed NDs who has completed four or more years of doctoral level clinical training, from an individual who may have completed lesser schooling, but may refer to them self as a naturopathic doctor. According to Naturopathic Medicine FAQs: A Service for Consumers, published jointly by the American Association of Naturopathic Physicians (AANP) and the Institute for Natural Medicine (INM), “Licensure and certification are the highest forms of regulation. They are designed to protect the public by ensuring that certain minimum competency requirements are met. They also set standards for the profession. Currently 19 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands offer licensure or certification for naturopathic doctors. The American Association of Naturopathic Physicians maintains a list of states and territories that license or certify naturopathic doctors.”
  - Source: http://www.naturopathic.org/natfaqs#Licensure & Cert
Side Notes/Wikipedia Research from Skye

Before publishing anything, we need to double-check the “reusing Wikipedia content” legal policy to make sure we’re not violating any rules in how we quote their pages.

- **“Reusing Wikipedia content**: Relates to the basis of using Wikipedia content in your own publications. Most of Wikipedia's material may be freely used under the CC-BY-SA and GFDL licenses. Which means you must credit the authors, re-license the material under CC-BY-SA or GFDL, and allow free access to it.” (Available here: https://en.wikipedia.org/wiki/Wikipedia:Reusing_Wikipedia_content)

If they are not receptive to our attempt to address and correct issue with the page, additional policies may be in violation, such as:

- **Conduct**
  - Clean start- Any user who is not subject to editing sanctions may abandon his or her account and start fresh under a new one, as long as the new account is not used in an improper manner.
  - Consensus- Consensus among equals is our only tool for resolving content disputes, and our main tool for resolving all other disputes.
  - Dispute resolution- The first step to resolving any dispute is to talk to those who disagree with you. If that fails, there are more structured forms of discussion available.
  - Editing policy- Improve pages wherever you can, and don't worry about leaving them imperfect. It is advisable to explain major changes.

- **Deletion**
  - Criteria for speedy deletion- Articles, images, categories etc. may be “speedily deleted” if they clearly fall within certain categories, which generally boil down to pages lacking content, or disruptive pages. Anything potentially controversial should go through the deletion process instead.
  - Revision deletion- A function available to administrators to eliminate grossly improper posts and log entries.

- **Enforcement** (depends on who page administrator is and if they have been granted above-normal permissions/access on the page)
  - Administrators- Administrators, like all editors, are not perfect beings. However, in general, they are expected to act as role models within the community, and a good general standard of civility, fairness, and general conduct both to editors and in content matters, is expected. When acting as administrators, they are also expected to be fair, exercise good judgment, and give explanations and be communicative as necessary.
  - Page protection policy- Pages can be protected against vandals or during fierce content disputes. Protected pages can, but in general should not, be edited by administrators. In addition, pages undergoing frequent vandalism can be semi-protected to block edits by very new or unregistered editors.

- **Legal**- These are policies with legal implications. Outside of policies, such as those below and the office actions policy, Wikipedia does not censor itself of content that may be objectionable or offensive, or adopt other perennial legal proposals over content, so long as the content obeys the law of the United States. Legal issues are raised by filing a formal complaint with the Wikimedia Foundation.
- Libel- It is Wikipedia policy to delete libelous revisions from the page history. If you believe you have been defamed, please contact us. It is the responsibility of all contributors to ensure that material posted on Wikipedia is not defamatory.
- No legal threats- Use dispute resolution rather than making legal threats, for everyone’s sake, as we respond quickly to complaints of defamation or copyright infringement. If you make legal threats, or take legal action over a Wikipedia dispute, you may be blocked from editing, so that the matter is not exacerbated through other channels. If you do take legal action, please refrain from editing until it is resolved.

Other Guidelines that may be relevant

Content

- **Accuracy dispute**- Articles for which much of the factual accuracy is actively disputed, should have a {{Disputed}} warning place at the top, and are listed at Category:Accuracy disputes.
  **Violation:** This is not included at the top of the page even though multiple complaints about the pages accuracy and appropriateness have been submitted.

- **Images**- According to Wikipedia, “The purpose of an image is to increase readers’ understanding of the article’s subject matter, usually by directly depicting people, things, activities, and concepts described in the article. The relevant aspect of the image should be clear and central.” (source: https://en.wikipedia.org/wiki/Wikipedia:Image_use_policy)