

## Fairy tales based medicine into the internet

05 Gennaio 2021

AA. VV.

### Abstract

Opinion-based medicine (OBM) was in the 70's of the last century, replaced by Evidence-based medicine (EBM) worldwide – a phenomenon that also took place in Romania at the beginning of the current millennium. Personalized medicine is a trend that has emerged in recent years, and an unofficial approach is that of defensive medicine. Into the virtual environment, a form of science-free medicine has developed in the last few years: stomach-based medicine, consisting of pseudo-medical recommendations, tips and principles enunciated by non-medical people or by people with short-term medical studies, or even by doctors converted to non-medical opinions.

We analyzed pseudo-medical content posted on Facebook in September 2018. We tried to identify the authors of posted materials and their professional training. An assessment has been made of the most common types of pathologies that make these pseudo-medical indications.

There is a vast diversity of pseudo-scientific information in the virtual environment that leads to confusion and possible negative consequences for the health of people affected by certain pathologies.

The virtual dissemination of medical recommendations without a scientific basis can harm patients who reconfigure their therapeutic pathway and undermine their confidence into doctors. It is necessary to find new rules or to extend they apply of the existent ones, aiming to limit and sanction the phenomenon.

### Tablet of Contents:

1. Introduction
2. Material and method
3. Results
4. Conclusions

### 1. Introduction

**The age of medical science is similar to that of human society.** If until the beginning of the 19th century, the evolution of medicine was slow, in the last 200 years the speed of accumulation of medical knowledge and the formulation of medical theories has experienced a quasi-exponential evolution [1].

Opinion-based medicine was in the 1970's of the last century, replaced by evidence-based medicine worldwide, a phenomenon that also took place in Romania at the beginning of the current millennium. Personalized medicine is a trend that has emerged in recent years, and an unofficial approach is that of the defensive medicine.

The practitioners are using three important sources of information in his work. The first types of information are those provided by the patient during the anamnesis, the objective examination and the laboratory analyses. The second types of information are the preexisting ones, which the physician achieves during his professional training. The third ones are the sources that he can access such as medical books, magazines, guides, or electronic resources: the internet. The higher quality of the information received from these three sources is, the greater are the chances of having an accurate diagnosis and the adequate therapies [2].

Medical experts, in drafting recommendations for practitioners, take into account the real effectiveness of a technique, seeking to determine the optimal conduct to follow, taking into account the state of knowledge and the multitude of material and moral factors [3].

Along with allopathic medicine, some diagnostic and therapeutic variants have been developed over time, combined under the generic name of alternative medicine. A brief look at this group of theories applied in practice allows us to list traditional Chinese medicine, auriculotherapy, ayurvedic medicine, anthroposophical medicine, homeopathy, aromatherapy, phytotherapy, naturopathy, iridology, oligotherapy, nutrotherapy, osteopathy, chiropractic's, radiotherapy, reflexology, yoga, qi gong, sophrology, hypnotherapy and autogenous training [4].

Some of these medical practices have been evaluated through evidence-based principles of medicine, some being validated, others scientifically invalidated – such as homeopathy, whose lack of therapeutic value has been demonstrated after nearly 200 years from the beginning of her practice [5].

**Into the virtual space, a form of highly heterogeneous medicine lacking real science bases that has a malgamated real-world medical principles and urban legends, dressed in an aura of credibility.** It has been developed recently, in the 5-10 past years: we have called it fairy-tales based medicine, which consists of pseudo-medical recommendations, tips and principles, stated by people without medical education, with short-term medical studies, or even by doctors converted to non-medical opinions.

## 2. Material and method

We randomly analysed 100 pseudo-medical content posted on Facebook in September 2018. We have tried to identify the authors of posted materials and their professional training.

An assessment has been made of the possible mobile posts and the most common types of pathologies that make these pseudo-medical indications. We also analysed the content's category of the posted materials.

## 3. Results



**There is a vast diversity of pseudo-scientific information in the virtual environment that leads to confusion and possible negative health consequences of those affected by these pathologies. The arguments are generally devoid of scientific basis, such as “a friend told me”, “a doctor told me ...”, “why do the doctors hate the formula...”, “this preparation is probably the most effective who can help in ... the cure from the elderly you need to know”.**

Regarding the authors of the analysed articles: out of the total of 100, 62 were unidentified, 12 were identified as being without medical education, 2 were identified as having short-term medical studies (nurses), 2 were identified as resident doctors, 6 were identified as doctors, and 16 were self-claimed physicians, without any possibility of identification into the internet.

From the point of view of the reason of publishing such materials, we have succeeded in identifying the following categories:

Directly involved in sales were 48 cases: these articles directly promote the sale of therapeutic products or medical devices.

Proselytise for medical beliefs was identified in 12 cases – these articles had no apparent motivation of pecuniary nature, but were promoting a large category of medical non-scientific beliefs as the anti-vaccine opinions, veganism, and sodium bicarbonate-based diet.

Altruism represented by the fact that in 7 cases we could not identify any economic or ideological reason for posting. 3 of these situations were postings realised by physicians that promoted real and science-based ideas in the field of disease prevention.

Indirectly involved in sales were 33 cases. There were apparently altruistic messages, but the sites were selling space for posting advertising material.

We classified the topics of the analysed postings into the following categories:

With content related to preventive medicine were 21 postings, mainly represented by the promotion of food supplements.

Curative medicine was the subject of 17 postings, some promising including the healing of any form of cancer!

Medicine of non-existent pathologies was the content of 28 postings, more frequently addressing to the issue of detoxification or the elimination of alleged undetectable parasites.

Elderly pathology was the subject of 34 postings, and many of them were exploiting the graceful degradation of the cognitive capacity of the old people, promising the immediate healing of degenerative pathologies such as arthritis, diabetes or gout.

#### **4. Conclusions**

1. Into the field of pseudo-medicine addressed to the public in the virtual environment, a very small number of authors have medical studies (6 out of 100), most of them being either non-identifiable or non-physicians.
2. In terms of mobile publishing, most articles aim at selling a product directly, or selling advertising space. There is also a proselytise variant to support non-medical beliefs (unrelated to religion) and, to a lesser extent, apparently, it is about altruistic acts.
3. Most of the issues addressed by fairy tales-based medicine in the virtual environment have the elderly as the target group, followed by the therapy of non-existent pathologies (omnipresent parasites, detoxifiers). Fewer are curative claims.
4. Dissemination in virtual space of non-scientific medical recommendations can cause harm to patients reconfiguring their therapeutic pathway and may undermine their trust in doctors.
5. Enhanced implementation or application of legal rules is needed to limit and sanction the phenomenon. Even a selection committee composed by physicians that could offer to certain sites a confidence accord could help the non-medical persons to have some orientation into the infinity of the internet medical information.

### ***Limits of the study***

The limits of the study are represented by the amount of existing information that is so large that it does not allow for an exhaustive approach or the selection of a significant and relevant statistical lot, the purpose of the research being to make a claim without absolute value in the world of fairy tales-based medicine.

### **The authors:**

**REBELEANU Codrin [1]**

**MOCANU Lacramioara [2]**

**ALUAS Maria [1]**

[1] *University of Medicine and Pharmacy "Iuliu Hatieganu" Cluj-Napoca (ROMANIA).*

[2] *Danubius University, Galati (ROMANIA).*

Contributo selezionato da Filodiritto tra quelli pubblicati nei Proceedings "13th National Conference on Bioethics with International Participation - 2018"

Per acquistare i Proceedings [clicca qui](#).

Contribution selected by Filodiritto among those published in the Proceedings "13th National Conference on Bioethics with International Participation - 2018"

To buy the Proceedings [click here](#).

### **REFERENCES**

1. Ursoniu, S. (2000) *Istoria Medicinei Universale*, Timisoara, Editura de Vest.
2. Restian, A., (2014) *De la medicina bazat? pe dovezi la medicina personalizat?*, *Practica Medicala – vol. I X*, nr. 2(34), pp. 60-66.
3. Ioan, B., Gavrilovici, C., Astarastoe, V. (2005), *Bioetica*, Iasi, Editura Junimea.
4. Korsia-Meffre, S., Brousse, V., Ducouret, A., *et al.*, (2007), *Medicini alternative*, Bucuresti, Enciclopedia Rao.

**TAG:** *proceedings, Internet, medicine*

---

**Avvertenza**

*La pubblicazione di contributi, approfondimenti, articoli e in genere di tutte le opere dottrinarie e di commento (ivi comprese le news) presenti su Filodiritto è stata concessa (e richiesta) dai rispettivi autori, titolari di tutti i diritti morali e patrimoniali ai sensi della legge sul diritto d'autore e sui diritti connessi (Legge 633/1941). La riproduzione ed ogni altra forma di diffusione al pubblico delle predette opere (anche in parte), in difetto di autorizzazione dell'autore, è punita a norma degli articoli 171, 171-bis, 171-ter, 174-bis e 174-ter della menzionata Legge 633/1941. È consentito scaricare, prendere visione, estrarre copia o stampare i documenti pubblicati su Filodiritto nella sezione Dottrina per ragioni esclusivamente personali, a scopo informativo-culturale e non commerciale, esclusa ogni modifica o alterazione. Sono parimenti consentite le citazioni a titolo di cronaca, studio, critica o recensione, purché accompagnate dal nome dell'autore dell'articolo e dall'indicazione della fonte, ad esempio: Luca Martini, La discrezionalità del sanitario nella qualificazione di reato perseguibile d'ufficio ai fini dell'obbligo di referto ex. art 365 cod. pen., in "Filodiritto" (<https://www.filodiritto.com>), con relativo collegamento ipertestuale. Se l'autore non è altrimenti indicato i diritti sono di Inforomatica S.r.l. e la riproduzione è vietata senza il consenso esplicito della stessa. È sempre gradita la comunicazione del testo, telematico o cartaceo, ove è avvenuta la citazione.*

---