

Research Article

It Is Necessary to Establish a Theoretical System for Non-pharmacological Treatment

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Abstract

There must be theoretical support for prevention and treatment of disease to form a relatively complete theoretical system, and this theory should be recognized by the majority of people. For a long time, the reason why non-pharmacological treatment (NPT) is in the fringe of medicine is that there is no convincing theory to prove its feasibility and rationality. Although drug therapy is in the dominant position in the medical field, the scientific nature and effectiveness of drug therapy are increasingly questioned by people, and more and more people turn their attention to NPT or non-pharmacological measure (NPM). NPT with homeopathic predominant has been deeply rooted in the hearts of people and is increasingly accepted by more and more people, but due to its weak theoretical foundation, the application of NPT has been constrained, the status quo of NPT is unfair and it is necessary to need and acquire a true and fair evaluation. This paper proves the feasibility and rationality of NPT from different angles. The wide range of applications for NPT has been proved for its feasibility; from the biological point of view, especially the self-repair ability of organisms, it can be proved scientific; understanding NPT from the perspective of ethics explains the authenticity of non-drug cure; the rationality and reliability of NPT is explained by the philosophical understanding of NPT. A complete theoretical system should be established for NPT, so that human health can be further improved.

Keywords

Non-pharmacological Treatment (NPT), Self-repair Ability, Medical Ethics, Philosophy, Homeopathy

1. Introduction

Worldwide, the spread of noncommunicable diseases (NCDs) is already out of control, and the World Health Organization's goal of achieving health coverage by 2030 is a difficult breakthrough, like a giant white elephant [1]. It has always been believed that the progress of society and science should bring more benefits to human health. With the continuous improvement of people's life quality, the average life expectancy continues to extend [2], but the incidence and mortality of NCDs, including cancer, remain high [3]. It shows that human beings have made huge mistakes in the

prevention and treatment of diseases, and drugs and advanced medical equipment cannot be played for the role of disease prevention and treatment as people think. NPT based on homeopathic therapy is emerging in the world and being more and more widely used [4], but it has been questioned by mainstream medical scholars [5], because drug therapy has been deeply rooted in the people's heart and drug therapy is supported by all medical theories. There are few solid theories for supporting NPT, due to the lack of scientific methodological research of homeopathy and other treatments, they are

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placed at the edge of the medical field and only play the role of "edge" and assistant [6], which is still not called a discipline. In order to establish the status of NPT, it is necessary to use theory to confirm the rationality of NPT, not only to use a large number of scientific data to support NPT, but also to use philosophical theory to identify the authenticity and rationality of NPT.

2. Why Do NPT Lack Theoretical Support

One thing is recognized by most people, that is, disease must be treated by medicine. Therefore, since ancient times, people have needed to seek medicine after illness, but whether diseases can be treated and cured by medicine has been a lot of controversy [7, 8]. In order to explore how to treat diseases by drugs effectively, many scholars have established many medical theories, such as auto-immunity theory, metabolic disease theory, cancer metastasis theory, cancer targeted therapy theory, etc. [9-11]. However, there are not many theories to support NPT based on homeopathy, and the most convincing theory is the self-repair theory [12]. Self-repair ability is the capabilities with all living organisms, and whether it can be the theoretical basis of homeopathy has not been recognized by most people. However, some argue that the homeopathic memory of water can also be used as a doctrine, had been diluted until it was devoid of any active agents, could still have a biological effect [13]. Such a theory is likely to be completely untenable and is therefore regarded as a medical practice akin to quackery [14], has resulted in yet another transformation in quackery [15].

NPT based on homeopathy not only lacks theoretical support, but also its theory credibility is very poor. Many proponents of homeopathy believe that the diluted bottle needs to be shaken a certain number of times and then its therapeutic effect can be exerted [16]. The idea that the liquid would have a wonderful effect in shaking, possibly evidencing structural changes induced in extremely diluted solutions [17], but it is not tenable, and its validity cannot be proved by scientific tests. That is to say, after countless shaking of the liquid which has been changed, any laboratory will not detect a certain result, and even if a certain result is detected, it is impossible to make a repeatable result.

In addition to homeopathy, meditation, tai chi, yoga, and Qigong are all used in the treatment of diseases. What changes take place inside the body during the manipulation of meditation and Qigong, how to promote the improvement of biological functions and the alleviation of diseases, and to what extent advanced and complex functions can be carried out unconsciously has been a controversial topic up to now [18]. It is to be admitted that the need to verify the theoretical rationality and authenticity of NPT is still in the exploration stage.

Another important reason is that the study of current med-

icine has been occupied in the commanding heights of theories, and even if there are many unexplained hypotheses in current medical theories, there are few people to correct and refute them. In other words, proponents of NPT have no reason to argue that their approach is correct, and there is no good reason to argue that drug treatment is irrational.

The irrationality of drug therapy has actually been known for a long time, because organisms do not need drug support to repair themselves. The ability to self-repair has always been recognized by researchers [19], and the founders of evidence-based medicine tried to prove this important question through controlled trials, because the biological revolution has extraordinary power to do good [20], and this ability to do good is the ability to self-repair. However, the controlled clinical trials completely ignore the self-repair ability of the human body, and the most frightening thing is that they completely ignore the mental and psychological factors of the human being. A kind of evidence-based medicine research that is out of touch with reality has been continued until now, and cannot be corrected, so there are constant disputes over evidence-based medicine [21, 22]. It is quite possible that the epistemology on which evidence-based medicine relies upon does not grasp the true complexity of the scientific methodology [23]. There are many hypotheses in medical theory that cannot be justified. Such as, the concept of immunity should be formed in response to the invasion of pathogens into human body [24], the reason why multiple vaccines are needed is to deal with the invasion of multiple pathogens, therefore it is unrealistic for immunity to exist in the body without the invasion of pathogens. The reason why noninfectious diseases are called non-infection is that immunity cannot be formed without the invasion of pathogens. However, the hypothesis of autoimmunity and immune deficiency has been established, it's about the study of NCDs, and it is believed that autoimmunity affects one in ten people [25], and few doubt that it is unreasonable. The reality is that the etiology of many diseases has been classified into the range of autoimmune diseases because of unclear explanation, such as systemic lupus erythematosus, multiple sclerosis, cancer, AIDS, etc., even cardiovascular and cerebrovascular diseases are no exception [26-30]. There is no such thing happens without a cause in the world, and there is no disease without a cause. The complexity of society creates disease, and the distortion of mental psychology is closely related to the occurrence of disease. It is a theoretical and logic mistake to attribute diseases caused by psychological distortions to immunodeficiency.

NPT, mainly homeopathic, there is not the ability to refute a series of current medical theories, because many proponents of NPT do not believe their own theories, the memory theory of water is not tenable, and the constant shaking of diluted liquid is full of mysterious colors. Many people are able to receive NPT because drug treatment is ineffective, and many patients have discovered their own mental strength to overcome the disease [31], but there is no strong theory to support this fashion.

Therefore, proponents of NPT must develop their own theories, which are not only scientific, but also philosophical [32]. The occurrence of non-communicable diseases, including cancer, is closely related to psychological factors. Psychological distortions can only be rectified by soothing the mind. The effect of drugs on psycho-righting is short-lived, while the effect of NPT on psycho-righting can be existed for a long time and diseases can be cured completely.

Overall, NPT, including homeopathy, have indeed played a role in the treatment of diseases. However, NPT has no theoretical basis, and some theories are not persuasive. In today's era when drug treatment is prevalent, the meager theories of non-drug treatment, compared with the immune deficiency hypothesis, the cancer metastasis hypothesis, the targeted therapy theory, etc., are rather lackluster. It should be said that NPT has a theory, and there is a very strong one. Whether in terms of feasibility, authenticity or logical reasoning, it can all be sought out, leaving unlimited room for exploration. For all the applications of NPT, no one can explain clearly why diseases can be cured after NPT, because many problems cannot be solved through scientific experiments and such experiments are not allowed on the human body either. Only through correct logical reasoning it can be explained clearly.

3. There Are Already Sufficient Evidences to Support NPT

NPT, including homeopathy, have been around for hundreds of years and have been accepted by more and more people even though they have been questioned by opponents [33]. There is a reason why NPT have been able to exist in the narrow gap.

3.1. Safety of NPT

The main reason why many proponents of NPT accept this treatment is that it does no harm to the human body, and homeopathic diluents contain only trace amounts of drugs, which can be considered to be almost no drug ingredients. Meditation, yoga, tai chi, Qigong, and manipulations such as acupuncture are among the safest therapeutic practices, nothing to do with medication, therefore, NPT is safe [34-36]. Many scholars have clarified this view, and some scholars believe that in homeopathy and alternative therapy there are not safety issues [37].

Because homeopathic diluents contain almost no pharmaceutical components, there is no need to go through some kind of test to confirm the effect on biological function. Moreover, many supporters of homeopathy believe that the reason why homeopathy can be used for therapeutic is because of the role of "water", which plays a mysterious effect through repeated shaking. Water is essential for life [38] and there is no question of its safety. This idea is not compatible with our knowledge of pure water [39]. It is reasonable to use water to support the safety of homeopathy, but the mystery of water

uses to explain the effectiveness of no scientific basis to homeopathy [40].

NPT is safe and there is no controversy, many drugs are unsafe. The effect of drugs on biological function and the damaging effect on human biological function are also undisputed. For example, symptomatic drugs work by their impact on biological function, and if the dose is not well mastered, serious side effects will occur [41]. Researchers have tried to use the effects of drugs on biological function to play a therapeutic role, to remove the lesion, without any success. NCDs, including cancer, are linked to inflammation, which cannot be removed by drug; Researchers try to kill cancer cells through anti-cancer drugs, but there is no evidence that cancer cells in the body are killed, but a large number of articles reveal that anti-cancer drugs cause serious damage to the central nervous system, such as cognitive function decline [42]. So, medication is unsafe, it's harmful. Moreover, almost all non-communicable diseases, especially those in advanced stages, are difficult to be cured by drug treatment, but survival is prolonged by homeopathy [43]. That is the ineffectiveness and harmfulness of drug therapy were explained; it also illustrates the harmlessness of NPT.

3.2. Feasibility and Effectiveness of NPT

NPT based on homeopathy has been widely accepted in the world, which shows that this method is feasible, and many patients have been treated through NPT, their conditions have been alleviated, and even cured, indicating that this method is effective.

In fact, NPT existed before drug treatments, and there were not drugs in the ancient times, people used prayer and magic to drive away diseases, and it was effective. People have also been using yoga, meditation, tai chi and Qigong to improve their health and reduce illness. It is just that people do not realize that these methods are real means and methods of treating diseases. Since the introduction of homeopathy, its mysterious color even the supporters of homeopathy themselves cannot explain, and the voice of criticism has been constantly. Herbs have been used for thousands of years, but no one can explain what pharmaceutical ingredients there are so far, and few people have studied them. The method exists in the world, mainly in China.

Indeed, both pharmacological and non-pharmacological methods are used, and in many cases, homeopathy is used when medical treatment fails, and herbal therapy is effectively used also. Even stronger evidence is that most people on Earth do not rely on medicine for their health.

3.3. The Ability to Self-repair Is Fundamental to Recovery from Disease

Proponents of NPT have always argued that the human body has a strong ability to self-repair, including the therapeutic effect of homeopathy, not the treatment itself, but the

full mobilization of the human body's self-repair ability [44]. However, how to elevate the self-healing mechanism to an NPT theory requires not only the support of laboratory data, but also the elucidate of the details of its main mechanisms.

The ability to self-repair is the basic ability of organisms to resist disease, and both supporters of drug therapy and supporters of NPT acknowledge this objective fact. The recovery process of the human body after damage mainly depends on the self-repair function of the organism, the supplement of nutrition is the basis, the protection of the damaged part is also indispensable, the recovery of damage cannot be promoted by drug, this strong self-repair ability cannot be replaced by any drug [45]. Proponents of drug therapy try to replace an organism's ability to repair itself with a variety of man-made or natural substances. Proponents of NPT have found that diluted formulations do not actually work, but rather that the biological functions of the body play a major role [20]. Therefore, the supporters of NPT are more inclined to play the biological function of the human body and reflect the value of the biological function of the human body. Because the biological function of the human body has great and amazing potential, which cannot be confirmed by ordinary laboratory data. On the contrary, proponents of drug treatment not only ignore the self-repair ability of the human body, but often try to replace the self-repair ability of the human body with scientific and technological means. The development of artificial intelligence is an example, and researchers try to use high technology to increase human wisdom and treat some intractable diseases [46]. Some scholars believe that artificial intelligence will inevitably weaken our humanity [47] and destroy mankind.

How to effectively improve the ability to self-repair, only in the human biological function is rarely disturbed, and without any interference, the ability to self-repair can be effectively played, otherwise there will be dysfunction. When the human body is injured or ill, fatigue, bad mood, intense exercise and other factors are not conducive to the improvement of biological function and the play of self-repair ability [48]. The emergence of non-communicable diseases is closely related to psychological factors. Bad psychological factors are the root cause of biological functional damage and the process in which order becomes disorder. Disorder can be turn into order with the self-repair ability of organisms, the constrained disorder is mandatory for the systems' existence and proper operation [49]. A good state of mind plays a positive role in promoting the improvement of biological functions. When the human body is at rest and emotionally stable, biological functions are in a good state of operation. NPT based on homeopathy actually plays a certain role in stabilizing mental state, and it has been reported, patients are seeking treatments that are effective and have reduced side effects [50]. However, proponents of NPT mistakenly believe that water's memory function plays a role, which is easily refuted by opponents.

3.4. The Scientific of NPT Has Not Been Proven

Although homeopathic NPT is prevalent in the world and accepted by more and more people, it is still opposed by supporters of drug therapy, who call it unscientific and even equated with quackery [15]. The reason why homeopathy is considered to be unscientific is that the application of homeopathy has not been scientifically tested, and there is no laboratory data to prove its scientific and rationality [40].

Whether drug therapy is scientific or NPT is scientific is a question worth discussing. Up to now, it is generally believed that drug treatment is scientific. Even if the therapeutic effect of drugs on diseases has not been shown, people still believe that it is because there is no suitable drug to be found. Researchers are still sought breakthrough points in the intermediate links of diseases, as target B cells and blocking Bruton's tyrosine kinase, and so no [51, 52]. So far, the most appropriate treatment has not been found. Moreover, it is widely believed that homeopathy is not scientific, because the medicine has been diluted and there is not pharmaceutical ingredients, and taking this "medicine" is completely the effect of water, and has no connection with science [53]. Therefore, homeopathy and alternative medicine cannot withstand by scientific verification and are not fundamentally different from quack, thinking that homeopathy, naturopathy and traditional methods is quackery [54]. That is to say, homeopathy is not scientific, but drug therapy is scientific, so how is the science of drug therapy reflected?

Medical theory should be based on science, but the current medical theory cannot be justified. For example, the theory of autoimmunity has been widely applied in the diagnosis and treatment of NCDs. Many NCDs, including cancer, are believed to be related to autoimmunity, which is the injury caused by the so-called immune cells attacking their own tissues and organs due to their wrong recognition [55]. Immunity is at the core of major theories related to invasion biology [24], and there is no invasion of pathogens, no immunity, and no immune deficiency for NCDs. Therefore, the use of immunity in the study of NCDs is questionable, there is not scientific basis in the theory of autoimmunity and such a theory must be pseudoscience. The theory of cancer cell metastasis, the theory of targeted therapy, the idea of vaccination to prevent NCDs, etc., is contrary to scientific principles and is untenable. The diagnosis and treatment adopted by the current medical science based on these theories have been repeatedly hit on a wall, diseases have not been effectively treated, and the high mortality rate is enough to explain the unreal and unreasonable medical theory. We know that, the theory of cancer metastasis has been widely applied, but so far, no scholar has made a detailed discussion on how cancer cells metastasize. How can such a theory without detailed research be regarded as scientific? Drug-controlled trials have always been regarded as one of the contents of evidence-based medical research. However, when researchers conduct drug-controlled trials, they have never taken mental and

psychological factors and self-repairing ability into account, which is also contrary to scientific principles, and so on.

So, is NPT scientific? To be exact, the scientific nature of NPT based on homeopathy has not been reflected, but the effectiveness and rationality of NPT are being evaluated by many scholars, and its scientific connotation is still covered up. The essence of NPT is to fully mobilize the self-repair ability of the human body, especially to restore biological function by stabilizing the mentality to solve mental disorders [56], which is scientific in biological theory. This scientific manifestation also needs a large number of clinical trials to confirm, that is, when conducting clinical controlled trials, we must take into account psychological factors and self-repair ability. Human beings are creatures with strong emotions, and the impact of emotional factors on biological functions is huge, art's cultural particularity can be reconciled with its biological universality [57]. Diseases can not only be caused but also be cured by emotional factors [58, 59]. Can emotions be changed by drugs? Sure, but it's temporary, feelings can be also damaged by too much medication. However, through a series of NPT, including prayer, it is possible to soothe distorted emotions for a long time, so that abnormal emotions can be transformed into normal emotions, and the purpose of treatment can be achieved. Researchers must realize that this is the rationality of NPT, which is in line with biological laws, so it is also scientific.

3.5. Ethical Analysis of Drug Treatment and NPT

The effectiveness of NPT has been proved time and again, and the widespread application and acceptance of NPT shows its rationality. Judging the facticity and rationality of a thing is the content of ethical research, that is, judging right and wrong [60]. The truth or falsity of what happened, reasonable or unreasonable, has always been a matter of debate. The truth and falseness of medical problems, reasonable or unreasonable, are also the core issues in medical discussions, the discussion of truth and falsity is the study of ethics, and homeopathy should be also recognized at the height of ethics [61]. People often associate ethics with morality [62, 63] because what is true is emotionally acceptable to people; And false things are emotionally difficult for people to accept. NPT is more and more accepted by more people, which shows that there is a certain correlation with morality, and also shows its rationality and authenticity.

The reason why in NPT there is a certain rationality and authenticity is that NPT meets people's emotional needs. The occurrence of NCDs is closely related to mental and psychological disorders, such as multiple sclerosis in children, the most common symptom is anxiety [64]. In homeopathy there is a certain psychological soothing effect, and the dialectical relationship between the psychological distortion and psychological soothing is reasonable and undeniable. The use of drugs to treat mental and psychological distortions is inap-

propriate, and is irrational and contrary to the principles of ethics.

The embodiment of medical behavior should be that doctors assist patients to remove diseases, but more and more medical disputes are suggested that there are serious problems between doctors and patients. People attribute these disputes to the moral law, because people find that with the deepening of economic society, the doctor-patient relationship has been more manifested in interests and values, and the truth is difficult to tell [65]. In reality, the doctor-patient relationship is becoming more and more bizarre, doctors treat patients for survival, the scale of the hospital is expanding without limit in order to create more value. All the pursuit is not to consider how to remove and eliminate disease, the challenges faced by physician-scientists, such as ethical dilemmas and declining engagement in research [66].

In order to pursue value, in the existing medical theoretical research has been lost for its rationality and authenticity. At present, the study of drug therapy is the most important part of medical theory, the application of drugs is very wide, people try to suppress and replace human biological with human subjectivity. Organisms have powerful biological functions, and self-repair ability is the most important biological function, and this self-repair ability cannot be replaced by any drug. However, in reality, the use of drugs is developed by science and technology to correct the disorder of biological function has been become in the main line of current medical research. Drug treatment has been deeply rooted in the heart, difficult to shake, whether patients or researchers, many people have been involved in this cycle, this is a malignant cycle; after entering this malignant cycle it is difficult to escape. Fortunately, most of us still believe in our bodies' ability to maintain good health, and we are aware that many of our 'ills' may be attributed to an over-reliance on medical technology [67].

Science should be rigorous, and what science seeks is authenticity, but the existing medical theory lacks truth. We know that the conclusions of controlled drug trials that ignore psychological factors and the ability of biological self-repair, the drug trials cannot be true. Immunity is the result of pathogen invasion, in NCDs there is not pathogen invasion, immunity does not exist, autoimmunity does not exist. The brain-body antagonism in NCDs [68], as a defense cell antagonizing its own tissues and organs, is based on the many questions that remain unresolved in the immunology-pathology-therapeutic debate [69]. The formation of brain-body confrontation is a disorder of biological function caused by bad mentality, which can be corrected and it's real. Self-antagonism in autoimmunity cannot be corrected and it's not real existing.

The reason why NPT, including homeopathy, the condition can be improved, because it is ethical both in terms of emotion and in terms of correcting bad mentality. However, drug treatment is not only damaging biological functions, but also unreasonable and unreal medical theoretical research, which is not in line with ethical requirements.

3.6. Support Can Be Provided by Philosophy in NPT Study

Philosophy is the study of the laws of thinking, which include induction and deduction, and various logical reasoning [32], causality is the dominant form of reasoning. At a philosophical point of view, it is more convincing to judge whether drug therapy is rational or NPT is rational, to be precise, pharmacotherapy is non-causal therapy, while non-pharmacological treatments such as homeopathy are causal treatments.

Causality suggests that everything happens for a reason [70] and that diseases happen for a reason also. The occurrence of acute infectious diseases is caused by the invasion of pathogens [71], and the occurrence of noninfectious diseases is also caused by mental and psychological factors [72, 73], because inflammation can be caused by mental disorders [74].

NPT are effective because that playing a role in correcting bad attitudes. Indeed, proponents of homeopathy do not fully realize that it is the improvement of psychological factors that plays a major role in the effectiveness of self-repair by reducing the negative impact on biological function. Whether it is prayer, meditation or yoga practice, it is to increase the peace of the inner world, the yearning for a better life, the suppression of bad mentality, so as to cure diseases [75]. The occurrence of disease comes from psychological distortion, which is a clear causal relationship, the possibility of physical injury is implied in mental illness [76], and the correction of psychological distortion plays a therapeutic role according to the causal relationship. Even if NPT such as the supporter of homeopathy do not realize that they are solving the problem from a causal relationship, but they are already on the right track of thinking. Proponents of drug therapy think they take the most scientific approach to disease, but in fact they do not match cause and effect, go further and further down the path of causality. The most serious problem of the current medical treatment is that it distorts the mental aspect and tries to correct and intervene in artificial way, which completely violates the philosophical principle of causality.

We know that the discovery of vaccines is the greatest pioneering work in human etiology, and it is the golden age of medicine [77], and many acute infectious diseases have been effectively controlled, this is instance of causality. For a long time, people have always believed that the cause of many diseases is unknown, and it is unreasonable to explain from the causal relationship, which is contrary to philosophical principles. The prevention and treatment of non-communicable diseases should be based on etiology, so as to effectively control the occurrence and development of diseases. However, from the perspective of the overall process of the medical community, it does not control the disease at the source, but makes efforts on the process and outcome of the disease, trying to use high-tech drugs and high-end diagnostic instruments to detect diseases early, such as the early diagnosis of hepatocellular carcinoma [78]. Diseases caused

by psychological factors should be looked for from the mental and psychological aspects, and the morphological discovery is too late. In fact, the limited and ineffective nature of drug treatment has been recognized, and such non-causal treatment measures appear to be weak, someone is trying to prevent NCDs by vaccination [79] is a completely distorted cause-and-effect relationship. In other words, there is no causal relationship between NCDs and pathogens, and how to develop vaccines for countless types of NCDs, no vaccine can be developed to prevent NCDs.

Many scholars have found that the occurrence of NCDs is caused by mental distortion. Some scholars believe that major depressive disorder is a leading global cause of disability [80]. This clear causal relationship is completely distorted in current medicine. Most people agree that the causality treatment such as homeopathy is unscientific and of a quackery nature. This kind of identification of true and false is difficult to distinguish with general scientific principles and ethical rules, only through rigorous philosophical principles can be clearly distinguished.

The philosophical status of NPT is firm, because if diseases are treated from the perspective of etiology, if NPT is used for disease prevention in the mainstream, it will bring more well-being for human beings [81]. In fact, people have long been aware of this problem, meditation, yoga, tai chi and Qigong manipulation is wide range of applications in the human world, hoping that the “false faces” of homeopathy will be removed, the veil of mystery of prayer will be removed [82], and the disease will be gradually eliminated.

4. The Great Significance of NPT Lies in the Prevention of Diseases

Human beings do not rely on certain drugs to ensure health and reduce disease in the course of survival. The health maintenance of organisms depends on basic nutrition, and every organism has to make a certain struggle in order to obtain nutrition. The health of every organism needs to constantly strengthen itself, so that it can adapt to the environment, and health can be guaranteed, such as the factors to improve the mental health of adolescents are crucial [83]. The most effective way to strengthen yourself is to take a variety of NPM. The most basic method is physical exercise, yoga, meditation, tai chi and Qigong are more advanced means.

Humans build up their constitution not only to adapt to the environment, but also to cope with disease. People found that even if the body is strong, it cannot be protected against the attack of pathogens on the human body. The discovery and invention of vaccines brought the Gospel for the prevention of acute infectious diseases, which is called the golden age [77]. Vaccination is one of NPM, and the most effective disease prevention measure, is the process of injecting a weakened pathogen into the body. However, attempts by some researchers to introduce vaccination into the study of NCDs are probably fanciful. NCDs are psychological changes caused by

complex society, the formation of NCDs is completely related to abnormal mental disorders and there is nothing to do with pathogens. Even during the epidemic period, panic and anxiety are the most important risk factors leading to the exacerbation of diseases [84].

The prevention of NCDs cannot be achieved through vaccination, but through a socially adaptive approach. If human beings are not in contact with society for a long time after birth, they will have serious psychological pressure in the face of complex interpersonal relationships, and it is easy to produce diseases. Many people suffer from diseases in childhood and adolescence, such as vitiligo, hearing loss and loss, baldness, etc., which may be caused by unbearable psychological pressure [85, 86]. The occurrence of malignant tumors in children is closely related to family pressure [87], and many patients have no time and opportunity to establish their psychological endurance, resulting in serious lesions, and the diseases are irreversible.

At present, non-drug treatment based on homeopathy is prevalent in the world, and more applications are made in NCDs in the late stage and in the course of the disease [88], there is indeed a significant therapeutic effect. In fact, NPM should play a better role in the early stage of the disease, and it is more effective for healthy people to do NPM to prevent the disease.

The main role of NPM is the conditioning of the state of mind, the conditioning of the state of mind should be during every rhythm of life. Yoga, tai chi, meditation for the conditioning of the state of mind, prayer is also for the conditioning of the state of mind, that is, the conditioning of the state of mind is not only applied in the process of yoga manipulation, not only applied in the process of prayer, but to be applied in the entire process of life also. Even if a person is perfect in doing yoga, very pious in the prayer process, but back to a complex life and is still in bad state of mind, the person cannot cope with the impact of complex society on biological functions, disease is unavoidable, and completely lost the meaning of conditioning mentality with NPM. Therefore, NPM cannot be limited to a certain form, but should be effectively applied to every detail of life, in order to achieve the purpose of prevention and treatment.

5. Classification of NPT

NPT is divided into NPT without any controversy and controversial NPT.

5.1. Non-controversial NPT That Is Divided Into Active NPT and Passive NPT

5.1.1. Active Non-pharmaceutical Treatment

Active non-pharmaceutical treatment (NPT) is an operation of energy from and within the human body. It is a process that initiates energy operation through the mind and promoting the improvement of biological functions. Active NPT include

meditation, yoga, meditation, tai chi, Qigong, prayer, etc. They are self-conscious behaviors that people are willing to maintain a good state of mind and remove psychological distortions by adjusting the state of mind, so that the biological function can be restored to a normal state, which is conducive to the recovery of the disease.

5.1.2. Passive Non-Pharmaceutical Treatment

Passive non-pharmaceutical treatment (NPT) is an operation of energy from outside the human body, this energy is an external physical form of energy, used to correct abnormalities in biological functions. Passive NPT include: Massage, acupressure, physiotherapy, acupuncture, electroacupuncture [89], high-frequency electrotherapy [90], electroshock [91], electric shock defibrillation, etc., are used to correct patients' biological disorders through external energy input to achieve the purpose of treating.

5.2. Controversial NPT

At present, the most controversial is homeopathy, in which drugs are diluted thousands of times, most likely without any pharmaceutical ingredients, so many people believe that therapeutic role is played by water [92]. In addition, whether there are medicinal ingredients in the boiled herbs still has not been studied, and the principle of medication is still lacking a scientific explanation [93]. Compared with homeopathic diluents, the boiled herb liquid retains its color, taste, odor, minerals, and temperature. It is quite possible that taste, smell and temperature play some therapeutic role in the treatment process, and too much minerals are not good for the body.

6. Conclusion

The treatment of disease must be supported by a theory that should be accepted by the majority. For a long time, the reason why NPT is in the fringe of medicine is that there is no convincing theory to prove its feasibility and rationality. In fact, NPT based on homeopathy has been deeply rooted in the hearts of people and is increasingly accepted by more and more people, but due to weak theories, its application has been restricted. From the above paragraphs, the author confirms the feasibility and rationality of NPT from different angles. With the universality application of NPT its feasibility has been confirmed. From the biological point of view, especially the self-repair ability of organisms, it can be proved scientific. The recognition of NPT from the perspective of ethics explains its authenticity. The rationality and reliability of NPT is explained by the philosophical understanding of NPT. NPM cannot be pursued formality, and should be applied in complex social life and activities. To do NPT or NPM are facing their biggest challenge, and humanity needs to abandon the traditional idea that there is an economic cost to treating disease and doctors are treating for survival.

Abbreviations

NPT	Non-pharmacological Treatment
NPM	Non-pharmacological Measure
NCDs	Noncommunicable Diseases

Author Contributions

Chi Zhao is the sole author. The author read and approved the final manuscript.

Ethical Approval

This article does not contain any animal studies conducted by any of the authors.

Informed Consent

Informed consent was obtained from all individual participants in the study, and there were three authors of the paper who had no interest relationship with each other.

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Data Availability Statement

Much of the evidence by searching in this paper comes from the research results of clinical investigators, and the content and information in this paper need not be confidential and can be shared.

Conflicts of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships. This study did not receive any corporate sponsorship, no funding.

References

- [1] Agyepong IA. Universal health coverage: breakthrough or great white elephant? *Lancet*. 2018 Nov 17; 392(10160): 2229-2236. [https://doi.org/10.1016/S0140-6736\(18\)32402-4](https://doi.org/10.1016/S0140-6736(18)32402-4) Epub 2018 Oct 8.
- [2] Liu Z, Zheng H, Wu Y, Wang S, Liu Y, Hu S. Self-Rated Healthy Life Expectancy Changes in Jiangxi Province of China by Gender and Urban-Rural Differences, 2013-2018. *Front Public Health*. 2021 Jan 25; 8: 596249. <https://doi.org/10.3389/fpubh.2020.596249>
- [3] GBD 2015 Mortality and Causes of Death Collaborators. Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet*. 2016 Oct 8; 388(10053): 1459-1544. [https://doi.org/10.1016/S0140-6736\(16\)31012-1](https://doi.org/10.1016/S0140-6736(16)31012-1)
- [4] Tangelloju A, Chakravarti R, Singh R, Bhattacharya B, Ghosh A, Bhutia SK, Ravichandiran V, Ghosh D. A Review on the Current Status of Homeopathy in the Clinical Management of Cancer. *Curr Drug Targets*. 2022; 23(13): 1252-1260. <https://doi.org/10.2174/1389450123666220816151547>
- [5] Milgrom LR. Is homeopathy possible? *J R Soc Promot Health*. 2006 Sep; 126(5): 211-8. <https://doi.org/10.1177/1466424006068237>
- [6] Das S. Debating scientific medicine: homoeopathy and allopathy in late nineteenth-century medical print in Bengal. *Med Hist*. 2012 Oct; 56(4): 463-80. <https://doi.org/10.1017/mdh.2012.28>
- [7] Kaufmann M, Karn T, Ruckhäberle E. Controversies concerning the use of neoadjuvant systemic therapy for primary breast cancer. *World J Surg*. 2012 Jul; 36(7): 1480-5. <https://doi.org/10.1007/s00268-012-1424-4>
- [8] Prati R. Listening to placebos: the contested lessons of antidepressants debates. *Hist Philos Life Sci*. 2025 Jan 9; 47(1): 3. <https://doi.org/10.1007/s40656-024-00656-0>
- [9] Selmi C. Autoimmunity in 2011. *Clin Rev Allergy Immunol*. 2012 Aug; 43(1-2): 194-206. <https://doi.org/10.1007/s12016-012-8330-2>
- [10] Kozlov AI, Parfenteva OI, Gasanov EV. [The influence of environmental factors on the prevalence of «thrifty genotypes» as predictors of metabolic disorders]. *Vopr Pitan*. 2023; 92(6): 18-27. Russian. <https://doi.org/10.33029/0042-8833-2023-92-6-18-27> Epub 2023 Oct 30.
- [11] Castaneda M, den Hollander P, Kuburich NA, Rosen JM, Mani SA. Mechanisms of cancer metastasis. *Semin Cancer Biol*. 2022 Dec; 87: 17-31. <https://doi.org/10.1016/j.semcancer.2022.10.006> Epub 2022 Oct 27.
- [12] Engelhardt H. Homöopathie; Ein Therapieverfahren zur Mobilisierung der Selbstheilungskräfte [Homeopathy; a therapeutic practice for the mobilization of self-healing powers]. *Pflege Aktuell*. 1995 Jan; 49(1): 12-4. German.
- [13] Ball P. 'Memory of water' biologist dies after heart surgery. *Nature*. 2004 Oct 14; 431(7010): 729. <https://doi.org/10.1038/431729b>
- [14] Ashraf M, Saeed H, Saleem Z, Rathore HA, Rasool F, Tahir E, Bhatti T, Khalid J, Bhatti I, Tariq A. A cross-sectional assessment of knowledge, attitudes and self-perceived effectiveness of complementary and alternative medicine among pharmacy and non-pharmacy university students. *BMC Complement Altern Med*. 2019 May 3; 19(1): 95. <https://doi.org/10.1186/s12906-019-2503-y>

- [15] Wahlberg A. A quackery with a difference-new medical pluralism and the problem of 'dangerous practitioners' in the United Kingdom. *Soc Sci Med*. 2007 Dec; 65(11): 2307-16. <https://doi.org/10.1016/j.socscimed.2007.07.024> Epub 2007 Aug 24.
- [16] Kratky KW. Homöopathie und Wasserstruktur: Ein physikalisches Modell [Homeopathy and structure of water: a physical model]. *Forsch Komplementarmed Klass Naturheilkd*. 2004 Feb; 11(1): 24-32. German. <https://doi.org/10.1159/000077193>
- [17] Elia V, Ausanio G, Gentile F, Germano R, Napoli E, Niccoli M. Experimental evidence of stable water nanostructures in extremely dilute solutions, at standard pressure and temperature. *Homeopathy*. 2014 Jan; 103(1): 44-50. <https://doi.org/10.1016/j.homp.2013.08.004>
- [18] Skora LI, Livermore JJA, Dienes Z, Seth AK, Scott RB. Feasibility of unconscious instrumental conditioning: A registered replication. *Cortex*. 2023 Feb; 159: 101-117. <https://doi.org/10.1016/j.cortex.2022.12.003> Epub 2022 Dec 17.
- [19] Mary Charlson. (2023) Self-Healing. <https://www.sciencedirect.com/topics/medicine-and-dentistry/self-healing>
- [20] Healy B. Hearing on the possible uses and misuses of genetic information. *Hum Gene Ther*. 1992 Feb; 3(1): 51-6. <https://doi.org/10.1089/hum.1992.3.1-51>
- [21] Freddi G, Romàn-Pumar JL. Evidence-based medicine: what it can and cannot do. *Ann Ist Super Sanita*. 2011; 47(1): 22-5. https://doi.org/10.4415/ANN_11_01_06
- [22] Wyer PC, Silva SA. Where is the wisdom? I--a conceptual history of evidence-based medicine. *J Eval Clin Pract*. 2009 Dec; 15(6): 891-8. <https://doi.org/10.1111/j.1365-2753.2009.01323.x>
- [23] Federspil G, Vettor R. La "evidence-based medicine": una riflessione critica sul concetto di evidenza in medicina [Evidence-based medicine: a critical analysis of the concept of evidence in medicine]. *Ital Heart J Suppl*. 2001 Jun; 2(6): 614-23. Italian.
- [24] Cornet S, Brouat C, Diagne C, Charbonnel N. Eco-immunology and bioinvasion: revisiting the evolution of increased competitive ability hypotheses. *Evol Appl*. 2016 Jul 22; 9(8): 952-62. <https://doi.org/10.1111/eva.12406>
- [25] Sun B, Fernandes D, Kienzler AK, Paneva S, Harrison R, Ramanathan S, Harrison AL, Makuch M, Fichtner ML, Donat RF, Akdeniz D, Bayuangga H, Im MG, Williams R, Vasconcelos A, Thomsen S, Fower A, Sun R, Fox et al. Permissive central tolerance plus defective peripheral checkpoints licence pathogenic memory B cells in CASPR2-antibody encephalitis. *bioRxiv [Preprint]*. 2025 Jan 14: 2025.01.14.631703. <https://doi.org/10.1101/2025.01.14.631703>
- [26] Chien JW, Lin CY, Yang LY. Correlation between anti-Ro/La titers and clinical findings of patients with systemic lupus erythematosus. *Zhonghua Yi Xue Za Zhi (Taipei)*. 2001 May; 64(5): 283-91.
- [27] Petrova LV, Boikova AN, Batysheva TT, Gusev EI. [A possible effect of the immunomodulating therapy with beta-interferons and glatimer acetate on the development of thyroid disease in patients with multiple sclerosis]. *Zh Nevrol Psikhiatr Im S S Korsakova*. 2011; 111(2 Pt 2): 58-67. Russian.
- [28] Lee KY, Mei Y, Liu H, Schwarz H. CD137-expressing regulatory T cells in cancer and autoimmune diseases. *Mol Ther*. 2025 Jan 8; 33(1): 51-70. <https://doi.org/10.1016/j.ymthe.2024.12.010> Epub 2024 Dec 11.
- [29] Justiz Vaillant AA, Qurie A. Immunodeficiency. 2023 Jun 26. In: *StatPearls [Internet]*. Treasure Island (FL): StatPearls Publishing; 2025 Jan--.
- [30] Tiwari E, Shrimankar D, Maindarkar M, Bhagawati M, Kaur J, Singh IM, Mantella L, Johri AM, Khanna NN, Singh R, Chaudhary S, Saba L, Al-Maini M, Anand V, Kitis G, Suri JS. Artificial intelligence-based cardiovascular/stroke risk stratification in women affected by autoimmune disorders: a narrative survey. *Rheumatol Int*. 2025 Jan 2; 45(1): 14. <https://doi.org/10.1007/s00296-024-05756-5>
- [31] Rafiuddin MS, Sami MB. The Role of Religion and Ethnic Factors in My Recovery From 10 Years of Schizophrenia and Severe Depression. *Schizophr Bull*. 2024 Nov 8; 50(6): 1277-1278. <https://doi.org/10.1093/schbul/sbad174>
- [32] Zhao C. Exploring the Nodus of Treatment, the Philosophical Status of Non-pharmacologic Treatment. *Int J Homeopathy Nat Med*. 2025; 11(1): 15-24. <https://doi.org/10.11648/j.ijhnm.20251101.13>
- [33] Kayne S. Homeopathy in the 21st Century, and Comparisons with Hahnemann. *Homeopathy*. 2021 Nov; 110(4): 292-302. <https://doi.org/10.1055/s-0041-1727160> Epub 2021 Sep 9.
- [34] Blaibel D, Fernandez CJ, Pappachan JM. Non-pharmacological interventions for diabetic peripheral neuropathy: Are we winning the battle? *World J Diabetes*. 2024 Apr 15; 15(4): 579-585. <https://doi.org/10.4239/wjd.v15.i4.579>
- [35] Jong MC, Buskin SL, Ilyenko L, Kholodova I, Burkart J, Weber S, Keller T, Klement P. Effectiveness, safety and tolerability of a complex homeopathic medicinal product in the prevention of recurrent acute upper respiratory tract infections in children: a multicenter, open, comparative, randomized, controlled clinical trial. *Multidiscip Respir Med*. 2016 May 16; 11: 19. <https://doi.org/10.1186/s40248-016-0056-1>
- [36] Beer AM, Fey S, Zimmer M, Teske W, Schremmer D, Wiebelitz KR. Wirksamkeit und Sicherheit eines homöopathischen Komplexpräparates bei chronischen Rückschmerzen. Doppelblinde, randomisierte, placebokontrollierte, klinische Studie [Effectiveness and safety of a homeopathic drug combination in the treatment of chronic low back pain. A double-blind, randomized, placebo-controlled clinical trial]. *MMW Fortschr Med*. 2012 Jun 28; 154 Suppl 2: 48-57. German. <https://doi.org/10.1007/s15006-012-0304-z>

- [37] Perry R, Huntley AL, Lai NM, Teut M, Martin DD, van der Werf ET. The effectiveness of homeopathy in relieving symptoms and reducing antibiotic use in patients with otitis media: A systematic review and meta-analysis. *Heliyon*. 2024 Oct 15; 10(20): e 39174. <https://doi.org/10.1016/j.heliyon.2024.e39174>
- [38] Frances Westall, André Brack. (20 February 2018) The Importance of Water for Life. <https://link.springer.com/article/10.1007/s11214-018-0476-7>
- [39] Teixeira J. Can water possibly have a memory? A sceptical view. *Homeopathy*. 2007 Jul; 96(3): 158-62. <https://doi.org/10.1016/j.homp.2007.05.001>
- [40] Whitehead M, Jessop M, Gough A, Taylor N, Hyde P, Atkinson M, Guthrie A. No scientific basis to homeopathy. *Vet Rec*. 2018 Jul 28; 183(4): 136. <https://doi.org/10.1136/vr.k3234>
- [41] Patri S, Thanh NTK, Kamaly N. Magnetic iron oxide nanogels for combined hyperthermia and drug delivery for cancer treatment. *Nanoscale*. 2024 Aug 22; 16(33): 15446-15464. <https://doi.org/10.1039/d4nr02058h>
- [42] Liu LL, Zhao S, Li Z, Li HZ, Ma DY, Liu X, Wang GY, Wang XL. Paclitaxel-induced cognitive decline was attenuated by necroptosis inhibition. *Neuroreport*. 2025 Jan 8; 36(1): 61-69. <https://doi.org/10.1097/WNR.0000000000002121> Epub 2024 Dec 4.
- [43] Gleiss A, Frass M, Gaertner K. Re-analysis of survival data of cancer patients utilizing additive homeopathy. *Complement Ther Med*. 2016 Aug; 27: 65-7. <https://doi.org/10.1016/j.ctim.2016.06.001> Epub 2016 Jun 7.
- [44] Suri M, Katnoria S, Walter NS, Manchanda RK, Khurana A, Nayak D, Bagai U, Kaur S. Efficacy of Chininum Sulphuricum 30C against Malaria: An in vitro and in vivo Study. *Complement Med Res*. 2022; 29(1): 43-52. English. <https://doi.org/10.1159/000517509> Epub 2021 Jul 27.
- [45] Zhao C. Exploring the Difficulties of Treatment, Rational Analysis of Homeopathy. *Int J Homeopathy Nat Med*. 2024; 10(2): 27-37. <https://doi.org/10.11648/j.ijhnm.20241002.11>
- [46] Fang CH, Zhang P, Lau YY, Zhong SZ. [Construction and application of the core technology system of digital intelligent diagnostic and treatment for hepato-biliary-pancreatic diseases]. *Zhonghua Wai Ke Za Zhi*. 2019 Apr 1; 57(4): 253-257. Chinese. <https://doi.org/10.3760/cma.j.issn.0529-5815.2019.04.003>
- [47] Xiantao Wang. (15 November 2020) Artificial Intelligence and the Loss of Humanity. <https://bpr.studentorg.berkeley.edu/2020/11/15/artificial-intelligence-and-the-loss-of-humanity/>
- [48] Fabian Hundertmark, Marlene van den Bos. (16 March 2024) Biological functions and dysfunctions: a selected dispositions approach. <https://link.springer.com/article/10.1007/s10539-024-09944-2>
- [49] Ilan Y. The constrained disorder principle defines living organisms and provides a method for correcting disturbed biological systems. *Comput Struct Biotechnol J*. 2022 Nov 10; 20: 6087-6096. <https://doi.org/10.1016/j.csbj.2022.11.015>
- [50] Grise DE, Peyman T, Langland J. Remission of Schizoaffective Disorder Using Homeopathic Medicine: 2 Case Reports. *Altern Ther Health Med*. 2018 Mar; 24(2): 50-56.
- [51] Chen Y, Shi N, Lei X, Ren P, Lan L, Chen L, Wang Y, Xu Y, Lin Y, Chen J, Han F. The efficacy of rituximab plus belimumab or telitacicept in refractory lupus nephritis. *Rheumatology (Oxford)*. 2025 Jan 1; 64(1): 221-227. <https://doi.org/10.1093/rheumatology/kead674>
- [52] Gao YH, Li SY, Dang Y, Duan MH, Zhang L, Li J. Efficacy and safety of orelabrutinib in relapsed/refractory idiopathic multicentric Castleman disease: A single-centre, retrospective study. *Br J Haematol*. 2025 Jan; 206(1): 152-158. <https://doi.org/10.1111/bjh.19827> Epub 2024 Oct 15.
- [53] Mattes J. Scientabilität - eine Antwort auf Homöopathie? [Scientability - an answer to homeopathy?]. *Z Evid Fortbild Qual Gesundhwes*. 2014; 108(4): 229-32. German. <https://doi.org/10.1016/j.zefq.2014.04.002> Epub 2014 May 2.
- [54] Veesar GY, Akhlaq A, Siddiqi AQ. Global prevalence of quackery practices: A scoping review of definitions, regulations and allied healthcare. *J Pak Med Assoc*. 2024 Jun; 74(6): 1144-1152. <https://doi.org/10.47391/JPMA.10230>
- [55] King B, Zhang X, Harcha WG, Szepietowski JC, Shapiro J, Lynde C, Mesinkovska NA, Zwillich SH, Napatalung L, Wajsbrot D, Fayyad R, Freyman A, Mitra D, Purohit V, Sinclair R, Wolk R. A plain language summary on ritlecitinib treatment for adults and adolescents with alopecia areata. *Immunotherapy*. 2023 Oct; 15(14): 1093-1103. <https://doi.org/10.2217/imt-2023-0069> Epub 2023 Jul 5.
- [56] Vilhena EC, Castilho EA. Homeopathic Treatment of Overweight and Obesity in Pregnant Women With Mental Disorders: A Double-blind, Controlled Clinical Trial. *Altern Ther Health Med*. 2016 Oct; 22(S3): 14-22.
- [57] Nadal M, Chatterjee A. Neuroaesthetics and art's diversity and universality. *Wiley Interdiscip Rev Cogn Sci*. 2019 May; 10(3): e 1487. <https://doi.org/10.1002/wcs.1487> Epub 2018 Nov 28.
- [58] Priego-Parra BA, Remes-Troche JM. Perceptions and emotions in postoperative recovery of patients with perianal diseases. *World J Psychiatry*. 2025 Jan 19; 15(1): 101563. <https://doi.org/10.5498/wjp.v15.i1.101563>
- [59] Salisbury L, Baraitser L. Depressing time: Waiting, melancholia, and the psychoanalytic practice of care. In: Kirtsoglou E, Simpson B, editors. *The Time of Anthropology: Studies of Contemporary Chronopolitics*. Abingdon: Routledge; 2020. Chapter 5.
- [60] Lo B, Malina D, Pittman G, Morrissey S. Fundamentals of Medical Ethics - A New Perspective Series. *N Engl J Med*. 2023 Dec 21; 389(25): 2392-2394. <https://doi.org/10.1056/NEJMe2308472>
- [61] Borkens Y, Endruscheit U, Lübbers CW. Homeopathy-A lively relic of the prescientific era. *Wien Klin Wochenschr*. 2024 Mar; 136(5-6): 177-184. <https://doi.org/10.1007/s00508-023-02164-w> Epub 2023 Mar 24.

- [62] Brousseau PL. Ethical dilemmas: right vs. right. A guide for public administrators who must make tough ethical decisions on the job. *Spectrum*. 1995 Winter; 68(1): 16-22.
- [63] BetterHelp Editorial Team. (8th January 2025) Morality Vs. Ethics: A Guide To Ethical Decision-Making. <https://www.betterhelp.com/advice/morality/the-battle-between-morality-vs-ethics-which-one-wins/>
- [64] Weisbrot D, Charvet L, Serafin D, Milazzo M, Preston T, Cleary R, Moadel T, Seibert M, Belman A, Krupp L. Psychiatric diagnoses and cognitive impairment in pediatric multiple sclerosis. *Mult Scler*. 2014 Apr; 20(5): 588-93. <https://doi.org/10.1177/1352458513504249> Epub 2013 Sep 26.
- [65] Lategan LO. Dokter-pasiënt-pasiënt-dokter verhouding: 'n etiese perspektief [Doctor-patient--patient -doctor relationship: an ethical perspective]. *Curationis*. 1995 Jun; 18(2): 45-8. Afrikaans.
- [66] Bhaskar SMM. Medicine Meets Science: The Imperative of Scientific Research and Publishing for Physician-Scientists. *Indian J Radiol Imaging*. 2025 Jan 9; 35(Suppl 1): S 9-S 17. <https://doi.org/10.1055/s-0044-1800803>
- [67] Myer EM. Help yourself to good health? *J Med Ethics*. 1979 Mar; 5(1): 4-8. <https://doi.org/10.1136/jme.5.1.4>
- [68] Schulz A, Vögele C. Interoception and stress. *Front Psychol*. 2015 Jul 20; 6: 993. <https://doi.org/10.3389/fpsyg.2015.00993>
- [69] Kanduc D. The self/nonself issue: A confrontation between proteomes. *Self Nonself*. 2010 Jul; 1(3): 255-258. <https://doi.org/10.4161/self.1.3.11897> Epub 2010 Jan 29.
- [70] D'Amico AV. Everything Happens for a Reason. *Pract Radiat Oncol*. 2019 Sep-Oct; 9(5): 295-296. <https://doi.org/10.1016/j.prro.2019.07.006> Epub 2019 Jul 19.
- [71] Aaron A King. (2014 Jul 17) Evolution of Acute Infections and the Invasion-Persistence Trade-Off. <https://pmc.ncbi.nlm.nih.gov/articles/PMC4101379/>
- [72] Oyama H, Moroi R, Sakuma A, Shimoyama Y, Nagai H, Naito T, Shiga H, Kakuta Y, Kinouchi Y, Masamune A. Chronic Poor Sleep is Associated with Increased Disease Activity in Patients with Ulcerative Colitis: Prospective Observational Study in Japan. *J Crohns Colitis*. 2025 Jan 11; 19(1): jjae 116. <https://doi.org/10.1093/ecco-jcc/jjae116>
- [73] Qiu Y, Liu G, Li J, Zhou D, Liu Y, Guo Z, Ye F, Chen F, Peng P. Impact of psychiatric disorders on the risk of glioma: Mendelian randomization and biological annotation. *J Affect Disord*. 2025 Jan 1; 368: 224-236. <https://doi.org/10.1016/j.jad.2024.09.060> Epub 2024 Sep 11.
- [74] Wang TY, Chang YH, Lee SY, Chang HH, Tsai TY, Tseng HH, Wang SM, Chen PS, Chen KC, Lee IH, Yang YK, Hong JS, Lu RB. Transdiagnostic features of inflammatory markers and executive function across psychiatric disorders. *J Psychiatr Res*. 2025 Jan; 181: 160-168. <https://doi.org/10.1016/j.jpsychires.2024.11.037> Epub 2024 Nov 22.
- [75] Wolff M, Brorsson A, Midlöv P, Sundquist K, Strandberg EL. Yoga - a laborious way to well-being: patients' experiences of yoga as a treatment for hypertension in primary care. *Scand J Prim Health Care*. 2017 Dec; 35(4): 360-368. <https://doi.org/10.1080/02813432.2017.1397318> Epub 2017 Nov 10.
- [76] Dammann EJ. "The myth of mental illness: " continuing controversies and their implications for mental health professionals. *Clin Psychol Rev*. 1997 Nov; 17(7): 733-56. [https://doi.org/10.1016/s0272-7358\(97\)00030-5](https://doi.org/10.1016/s0272-7358(97)00030-5)
- [77] Logan AC, Prescott SL, Katz DL. Golden Age of Medicine 2.0: Lifestyle Medicine and Planetary Health Prioritized. *J Lifestyle Med*. 2019 Jul; 9(2): 75-91. <https://doi.org/10.15280/jlm.2019.9.2.75> Epub 2019 Jul 31.
- [78] Boal Carvalho P, Pereira E. Imagiological Diagnosis of Gastrointestinal Diseases - Diagnostic Criteria of Hepatocellular Carcinoma. *GE Port J Gastroenterol*. 2015 May 11; 22(4): 153-160. <https://doi.org/10.1016/j.jpge.2015.04.002>
- [79] Kashutina MI, Fadeeva IA, Zhernov YV. World Experience in Immunization against Noncommunicable Diseases: Successes and Vectors for Further Development. *Vaccines (Basel)*. 2023 Jul 27; 11(8): 1286. <https://doi.org/10.3390/vaccines11081286>
- [80] Bulteau S, Malo R, Holland Z, Laurin A, Sauvaget A. The update of self-identity: Importance of assessing autobiographical memory in major depressive disorder. *Wiley Interdiscip Rev Cogn Sci*. 2023 May-Jun; 14(3): e 1644. <https://doi.org/10.1002/wcs.1644> Epub 2023 Feb 6.
- [81] Aßmann L, Betsch T. Medical decision making beyond evidence: Correlates of belief in complementary and alternative medicine (CAM) and homeopathy. *PLoS One*. 2023 Apr 21; 18(4): e 0284383. <https://doi.org/10.1371/journal.pone.0284383>
- [82] Cipriano-Steffens TM, Carilli T, Hlubocky F, Quinn M, Fitchett G, Polite B. "Let Go, Let God": A Qualitative Study Exploring Cancer Patients' Spirituality and Its Place in the Medical Setting. *J Relig Health*. 2020 Oct; 59(5): 2341-2363. <https://doi.org/10.1007/s10943-019-00942-3>
- [83] Sahib A, Chen J, Reynolds KJ, Cárdenas D. The curative effect of schools: A longitudinal study of the impact of school climate, school identification, and resilience on adolescent mental health. *Sch Psychol*. 2025 Jan; 40(1): 13-23. <https://doi.org/10.1037/spq0000571> Epub 2023 Sep 7.
- [84] Lopez-Romeo S, Subira-Alvarez S, Miranda-Mendizabal A, Piqueras-Marques J, Leal-Pujol R, Recoder S, Calbo E, Casajuana-Closas M, Forero CG, Castellvi P. Having any mental health condition before the COVID-19 pandemic as a risk factor of COVID-19 contagion during the first year of pandemic: A Spanish adult cohort. *Stress Health*. 2024 Oct; 40(5): e 3446. <https://doi.org/10.1002/smi.3446> Epub 2024 Jul 17.
- [85] Schwartz R, Sepúlveda JE, Quintana T. Factores psicobiológicos en vitiligo infantil: posible rol en su génesis e impacto en la calidad de vida [Possible role of psychological and environmental factors in the genesis of childhood vitiligo]. *Rev Med Chil*. 2009 Jan; 137(1): 53-62. Spanish. Epub 2009 Apr 23.

- [86] Vélez-Muñiz RDC, Peralta-Pedrero ML, Jurado-Santa Cruz F, Morales-Sánchez MA. Psychological Profile and Quality of Life of Patients with Alopecia Areata. *Skin Appendage Disord.* 2019 Aug; 5(5): 293-298. <https://doi.org/10.1159/000497166> Epub 2019 Mar 20.
- [87] Borrescio-Higa F, Valdés N. The Psychosocial Burden of Families with Childhood Blood Cancer. *Int J Environ Res Public Health.* 2022 Jan 5; 19(1): 599. <https://doi.org/10.3390/ijerph19010599>
- [88] Maftai NM, Nechifor A, Tan B, Elisei AM, Pelin AM, Nechita L, Tatu AL, Leow LJ, Nwabudike LC. Therapeutic Applications for Homeopathy in Clinical Practice. *Adv Ther.* 2025 Jan; 42(1): 36-51. <https://doi.org/10.1007/s12325-024-03022-5> Epub 2024 Nov 8.
- [89] Bonello RP, Cohen M, Reece J, Aggarwal A, Rigney C. A postmarket surveillance study on electro-neuro-adaptive-regulator therapy. *Evid Based Complement Alternat Med.* 2014; 2014: 341256. <https://doi.org/10.1155/2014/341256> Epub 2014 Jun 5.
- [90] Morozov GV, Antropov IuF, Asanova LM, Shkanov SM. Lechenie nevroticheskoi depressii s pomoshch'iu kraĭne vysokikh chastot ėlektromagnitnogo izlucheniia [The treatment of neurotic depression by using extremely high-frequency electromagnetic radiation]. *Zh Nevrol Psikhiatr Im S S Korsakova.* 1996; 96(6): 28-31. Russian.
- [91] Smida T, Cheskes S, Crowe R, Price BS, Scheidler J, Shukis M, Martin PS, Bardes J. The association between initial defibrillation dose and outcomes following adult out-of-hospital cardiac arrest resuscitation: A retrospective, multi-agency study. *Resuscitation.* 2025 Jan 23: 110507. <https://doi.org/10.1016/j.resuscitation.2025.110507> Epub ahead of print.
- [92] Voeikov VL. The possible role of active oxygen in the memory of water. *Homeopathy.* 2007 Jul; 96(3): 196-201. <https://doi.org/10.1016/j.homp.2007.05.003>
- [93] Zhou N, Yang Y, Li K, Ke Y, Zheng X, Feng W, Bai Z, Liu T, Wang Y, Liu Z, Li X. (2019) Integrating strategies of chemistry, biochemistry and metabolomics for characterization of the medication principle of "treating cold/heat syndrome with hot/cold herbs". *J Ethnopharmacol.* 2019 Jul 15; 239: 111899. <https://doi.org/10.1016/j.jep.2019.111899> Epub 2019 Apr 27.