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The Weakness of Will: The Role of Free Will in Treatment Adherence

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Abstract: Chronic disease prevention and management requires a lifelong commitment and adherence to lifestyle modifications, monitoring of symptoms, medication use, and other forms of therapy. Treatment adherence is a crucial and complex concept in patient care provision, and it requires the voluntary active involvement of patients for the best possible outcome. Multiple factors, which may or may not be under the patient's control, can influence treatment adherence. However, adherence or non-adherence to a certain treatment is predominantly influenced by one's sense of agency, values, beliefs, attitudes, and willpower. It is evident that mental states appear to influence patients' decision-making, and the best treatment outcome occurs when a patient identifies their goals, needs, and desires and exercises their decision-making and free will during the course of receiving care. The role of healthcare providers is critical in promoting treatment adherence, thereby enhancing patient outcomes. Thus, this paper highlights the importance of promoting a sense of agency and integrating patients' values, beliefs, attitudes, and intentions during the provision of healthcare. It is indispensable to recognize the individual's ability and initiative to control and manage their illness in the face of challenging socioeconomic and cultural reality. On logical grounds, it is not enough to appreciate the value of free will and mental states, it is also essential to empower and cultivate an individual patient's willpower to make a well-informed, free decision based on their mental state for the most optimal treatment outcomes.

Keywords: free will, willpower, treatment, adherence, compliance

Introduction

Treatment and prevention of chronic conditions often require a sustained commitment from an individual to lifestyle changes, surveillance of symptoms, medication use, and other forms of therapy. Some of the treatments can be invasive, uncomfortable, and time-consuming. Since its introduction into the health care system, the concept of treatment adherence has been a crucial part of patient care provision.¹ Contextualized within a patient-caregiver dyad, adherence implies the patient's agreement to play an active, voluntary, and collaborative role in a mutually acceptable course of behaviour to produce optimal treatment outcome.² Cultivation of treatment adherence is complex and multidimensional; many national, as well as international health agencies that represent patients and health care professionals, are advocating the need to individualize treatment and communication that facilitates decision-making, putting belief and free will of patients be at the center of care.³⁻⁶

The discourse of adherence has long been obfuscated and displaced by frameworks that situate human behaviours within a system that is subjected to the influence of environmental determinants. The purpose of the empirical inquiry is to delineate these relationships in order to control and manipulate treatment adherence. We argue that the dialogue about adherence should be guided by narratives on free will,⁷ rational decision-making,⁸ and individual's belief and attitude.^{9,10} The available evidence put forward the claim that the best treatment outcome is realized when a patient identifies their goals, needs, values, perceptions, and attitudes towards the treatment plan and services⁶ and exercises their decision-making and free will in the course of receiving care.^{7,11,12}

In this paper, we will explore the tapestry of free will and various philosophical perspectives that describe how free will, or lack thereof, is crucial to shaping people's behaviour in relation to chronic disease management.

To present our argument and position for the oldest philosophical question “do we have free will?”, we will start with the question “if we don’t have free will why are we here in this world then?”. As supporters of the ideas of the French philosopher Jean-Paul Sartre,¹³ we believe that we human beings live in a very demanding world that requires a strong determination and struggle, not because life is terrible, but because we are destined to be free.

Do We Have Free Will? The Free Will and Determinism Argument

What is free will? Do we exercise free will to make choices? Free will is a predominant concept of discussion among different camps of philosophers and has been subject of long debates.^{14,15} Starting from the era of Socrates, free will continues to be a major philosophical problem, and the questions of “Do we have free will?” or “Do people have a complete moral freedom or power of real choice?” continues to have relevance regardless of time and setting.^{16,17} Simply put, free will is defined as the ability to inform intentions or to choose one course of action over the other.¹⁸ Many thousands of years ago, before the question of free will came into the discussion of ancient Greece, it was predominantly believed that a human’s fate, life events (good or bad), and mood and state of mind were predetermined by supernatural gods. For instance, the ancient Greeks believed that certain gods were specifically assigned by Zeus to oversee mood, destiny, justice, planetary bodies, the sea, and seasons. In turn, these gods eventually control and define the life events and subsequent decisions of an individual.¹⁶

It was the great philosophers Socrates and Plato that poised a fundamental shift proposing individual possession of free will independent of the influence from supernatural gods.¹⁶ Every person bestowed with free will are expected to take charge of their own lives and bear moral responsibility for their own actions. Placing responsibility in the hands of individuals is supported by legal and other systems. Here we can refer to the health care system where agents/patients are expected to make healthy choices for a better treatment outcome and morally responsible for their decisions).^{19,20}

Whether humans are free to choose between alternatives continues to be the center of argument between the two major philosophical traditions.^{15,21} “Libertarianism” claims that humans are free to make a life choice between alternatives and thereby, accept the existence of free will. Advocates of the libertarian view assert that free will determines our behaviours claiming that, based on our beliefs, desires, and intentions, we are free to propose what we want to do and we are responsible for our own actions.^{18,22} On the basis of this argument, it is fair to conclude that any action is driven by beliefs, values, and morals.^{21,23} To further elaborate the philosophical standpoint of libertarianism, the French philosopher Jean-Paul Sartre (2001), passionately argued in support of the idea that humans are destined to be free. Although we can not control our birth and upbringing, once we become self-aware, we make life choices that define our essence, thus, contributing to our ability to be free and exercise free will.¹³ It is because we are free that we have choices, and it is our action (derived by our rational thinking and intention) that gives meaning to our lives.²⁴

On the other hand, the “deterministic” position can be traced back from the era of Democritus all the way through to Spinoza, Comte, and Freud. The deterministic position primarily believes that everything that happens is unavoidable and it is the inevitable product of prior causes.^{15,16,25,26} Along a similar line, the seventeenth-century philosopher, Thomas Hobbes asserts that the mind works based on the predefined set of principles, therefore, an individual can not implement free will.²⁷ Later in history, Immanuel Kant agreed with Hobbes and added that although determinism can be applied to everything, some parts of the human mind is free from definite laws.²⁸ The argument here is that every decision made, every action taken, and every choice made is an illusion and it is the force outside our consciousness that determines what we all choose and do.^{17,29} Therefore, in the deterministic belief, everything that happens in the world has a causal link and is due to an unbroken chain of the preceding happenings, there is nothing in the world that is self-caused.^{25,30,31}

The deterministic perspective of free will argues that if God knows the future performance of a person, how can a person be morally responsible for their actions? Thus, they fundamentally undermine a person’s moral responsibility for any action or behaviour committed.^{27,30} Moreover, in modern science, this question continues to seek an answer to whether people are free to do anything.^{17,26,32}

Since the term “free will” has been used in multiple contexts, the debate remains open and the understanding of its importance, as well as its association with other concepts in health care, continues to emerge. Describing free will as a unique form of action control that came about to meet the increasing demands of human life driven by moral actions and the pursuit of self-interest, will open up the possibility of a person to act or react differently in any given life situation.²¹

In free will, one of the basic components is to freely choose among diversified possibilities based on the values, beliefs, and perspectives someone holds in their life.⁷ Therefore, exercising free will is determining one's life, interests, and values free from unwarranted interference.³³ This will bring us to another important concept in free will, healthcare treatment adherence, which is freedom of choice.

A patient's freedom of choice among multiple treatment options, allowing a patient to choose can affect the level of treatment adherence. Freedom of choice is

the human capacity to choose freely between two or more genuine alternatives or possibilities, such choosing being always limited both by the past and the by the circumstances of the immediate present.³⁴

In his book entitled, *What is freedom of choice?*, Settani²⁶ explains the problem of free choice from both Christian and scientific perspectives to illustrate the existence of freedom of choice by presenting the "incompatibilist" position of free will which affirms the presence of free choice, morality, and blame. The most prominent advocate and founder of incompatibilism philosophical perspective Peter van Inwagen argues that if a person deliberates about whether to do "A" or "B", he believes he has more than one possible course of action from which to choose, thus he can choose to perform either of these actions.^{35–37} On the above points, we can conclude that a sense of free will, free choice, morality, reason, and blame can drive the action of patients towards a certain choice of behaviour, in this case, treatment adherence or non-adherence.

In his classic writing, "Actions, Reasons, and Causes" Donald Davidson (1963) presents the causal theory of action. Davidson's argument is that the connection between reason and action is causal, not logical if reasons are to rationalize actions. This further led other philosophers to explore the mental states involving the agent such as beliefs, values, desires, and intentions to prove that an action can be initiated and performed by an agent due to their mental states (beliefs, values, desires, and intentions).^{38,39}

In his influential writing, "Freedom and Resentment" Strawson (1974), defends the common-sense argument to claim human responsibility for any conduct. In Strawson's argument, interpersonal relationships are something we cannot avoid as a social being and when we engage in these relationships, we open ourselves to experience certain emotions, which he refers to reactive attitudes. Reactive attitudes are adequate enough to hold individuals responsible for their actions. Strawson thus argues that as long as we are engaging in interpersonal relationships, we are responsible for our actions.⁴⁰

The Role of Free Will in Behaviour

The notion that one controls one's own action and behaviour is strong and pervasive because humans are naturally inclined to think of themselves as free agents.⁴¹ As humans, we do not feel like automatons and we do not treat fellow human beings the way we treat robots.¹⁷ To strengthen the above ideas, a massive survey of people in 36 countries demonstrates that more than 70% of participants believe that they are in control of their fate.⁴²

A feeling of self-control and responsibility determines the way a person behaves. It is well recognized that a change in one's sense of responsibility will change the behaviour (healthy or unhealthy) of a person.¹⁹ For instance, in their writing, Harmon-Jones and Mills⁴³ develop the claim that a sense of personal accountability urges people to alter their behaviour to align with their attitudes and values. The forgoing claim implies that a sense of accountability guides the behaviour of patients in a certain way that can explain why free will, sense of control and responsibility are very important in (un) healthy behaviour or treatment (non) adherence.¹⁹

Thinking an outcome is based on an effort, rather than an inborn trait can influence behaviour. For example, in a study aimed to understand the effect of praise on student's behaviour among a group of fifth-graders, investigators praise students for an initial task accomplished either due to their intelligence or their hard work. Then a little harder task beyond their performance level is given. Finally, in the third task, students who believe their earlier success is as a result of their intelligence demonstrate less effort and enjoyment than those who thought their achievement is due to their effort.⁴⁴

Similarly, in an attempt to explore whether believing that human behaviour is predetermined would encourage cheating and a sense of responsibility, Vohs and Schooler⁴⁵ prove that accepting the deterministic point of view or believing in predetermined behaviour undermines a sense of agency and encourages cheating behaviour. The effect of

free will in behaviour is also explored in the work of Twenge, Zhang,⁴⁶ showing that feeling of strong independence and self-determination can create a sense of control to one's own environment and destinies. Thus, once a person feels in control of their environment, there will be a greater chance to maximize the effort to overcome the external (environmental) obstacles to treatment adherence.

One of the hallmarks of human existence is that we all hold beliefs that determine how we act. Amongst such beliefs, the idea that we are endowed with free will appears to be linked with prosocial behaviours, probably by enhancing the feeling of responsibility of individuals over their own actions. On these grounds, we can understand that free will in the sense of effort and personal agency can empower and inspire patients to adhere to their treatment recommendations.

Albritton,¹⁸ a philosopher of independent mind, presented his essay on his 1985 presidential address to the American Philosophical Association to explain the characteristics of free will and why our will is free. In his philosophical paper, Albritton defends the idea that free will is naturally free and can not be restrained in any circumstance. He explains that free will is the ability to inform intentions or to choose one course of action over the other. Thus, in any circumstance of life, a person's will is free, and what their desire to do is up to theirs. Furthermore, the essay explains the four interconnected concepts of freedom of action, efficacy of will, freedom of will, and strength of will to demonstrate how people are free to choose between actions, why they are free to will, and how wills are free. His essay further elaborates on the limitations of external factors to control one's freedom of will.¹⁸ Here, we can further develop the idea that patients' decisions to choose among options in the course of treatment is solely based on free choices and actions. Thus, empowering patients to recognize their free will and make a well-informed decision in the best interest of their health can improve treatment adherence.

However, free will is not enough to ensure treatment adherence. An individual also needs the willpower to assist with the actions associated with treatment adherence. In illustrating the influence of willpower towards combating disease and illness, Kugelmann⁴⁷ affirms that the weakening of willpower in the battle against disease is due to the recognition of the frailty of the flesh. Thus, when a person is threatened by their illness or life challenges when battling a disease, it is willpower that gives an individual resilience to overcome difficulties. However, when a person gives up their fight against life-threatening diseases, it is their willpower that appears to be broken. This argument may bring us to a very important question what if the person chooses not to take the treatment? Well, in this case, we have to recognize that the patient no longer "desires" to live or combat their illness, this also justifies the power of will in declining treatment. In both cases, what we love most, the willpower executes. That which our heart and mind do not desire, we will not have the willpower to obtain. Willpower is the ability to suppress pain, stress and overcome habits.⁴⁷ This definition explains the mechanisms to overcome the barriers to treatment adherence thereby, enhances treatment adherence.

In support of the idea that free will enhance treatment adherence, literature highlights that a reduced belief in free will could weaken the belief in moral responsibility, which may alter a subsequent behaviour.^{19,45} To illustrate the strong relationship between free will and behaviour, the available evidence seems to suggest that the belief or disbelief about free will profoundly affects the behaviour of people.⁴⁶ Further evidence supporting the relationship of free will and belief lies in the finding of Baumeister, Masicampo,⁴⁸ who highlights that a laypersons' belief in free will encourages a feeling of insightful reflection and willingness to exert energy to promote helpful behaviour and reduce aggression. On the other hand, disbelief in free will leads to more selfish and impulsive behaviour. Hence, the role of free will in displaying a positive behaviour towards self and others which may encourage responsible behaviour, in this case, treatment adherence.

The Weakness of Will and Treatment Adherence

Interestingly, the work of American behavioural psychiatrist and psychologist George Ainslie (1985), Norwegian social and political theorist Jon Elster (2000), and American philosopher Donald Davidson (1980) explain the effect of willpower on decision making and individual choices that we can further utilize to explain its relationship with treatment adherence. The first concept that can explain the problem of treatment adherence is inter-temporal choice. This concept is well explained by an Ainslie⁴⁹ and Elster⁵⁰ stating that impatience can affect rational decision making. In this case, patients may be impatient by nature and thus tend to prefer the immediate reward of any form of non-adherence than the long-term benefit of treatment adherence. According to Olmsted and McFarlane,⁵¹ the main reason (up to 40%) of non-adherence, while knowing its benefits, to health improvement programs (diet, exercise, etc) among Canadian women is a

weakness of will. A closer look at this data indicates that weakness of will undermines the adherence of women to recommended treatment. Given the centrality of weakness of will to our claim, we will illustrate the argument of weak will and irrationality using the following real-life scenario. Say, a patient living with diabetes wants to lose weight and started to eat a low-calorie diet. The most important thing now in their life is their health and their strict dietary practice. However, at a dinner party, they cannot resist their desire to take a slice of cake for dessert. Since their goal is to lose weight, this action is irrational, and he is demonstrating weakness of will. In the practice of willpower, there is a possibility that patients may refuse to adhere, intentional non-adherence, with the treatment plan. As long as their desires, values, and practices do not contradict, we can agree that their willpower is intact and strong. Thus, this mechanism can explain why weakness of will determines a patient's commitment and adherence to long-term therapy.

Another explanation of the problem of treatment adherence is explored in the principle of continence (strong-will) by Davidson (1980). Davidson suggests the existence of a principle of rationality, which explains the coherence of our behaviours. This principle urges us to see all the available options and act on what is best for us according to our values, beliefs, and opinions. Thus, Davidson claims that a person who fails to adhere to a recommended treatment plan is weak-willed or "incontinent".⁵² He analogizes the role of continence to elaborate the principle of rationality by describing a scenario of a person who struggles to stop smoking. The woman developed an argument in her mind and based on her judgment she determined she should quit smoking yet, she insists on smoking and gives into taking a cigarette. Here, her desire to smoke dominates or pushes out her will. The mechanism of irrational action and impatience can explain the weakness of will in treatment adherence. Thus, we can understand that a weakness in the will alters a personal desire and wish to do something which eventually can affect behaviour or action.

Two terms, *compliance* and *adherence*, are important concepts regarding the patient's commitment to adhere to the recommended treatment plan. However, the main difference between these two terms is whether the patient is willingly deciding to follow treatment recommendations to their interest or not. Adherence is "the extent to which a person's behaviour -taking medication, following a diet, and/or executing lifestyle changes corresponds with agreed recommendations from a health care provider."³ Whereas, compliance is limited to patients following doctor's orders and defined as "the extent to which a patient's behavior matches the prescriber's advice".⁵³ In these two separate "paradigms" the patient's ability to decide in their best interest is very paramount for a successful treatment outcome. This paradigm difference gives a different perspective about how healthcare services should be designed and delivered to individual patients in order to promote patient engagement and treatment adherence.⁵⁴

In recent years, the role of clinicians as authoritarian figures who know everything is no longer practical, and literature identifies that patient-clinical relationship as a partnership where patients make their own free decision about their care for the best interest of their life goals and desires.^{54,55}

Patient's decision-making ability is the major determinant factor for treatment adherence. For instance, the patient's empowered decision-making ability and sense of involvement in their treatment plan play a great role in treatment adherence and outcome.⁵⁶ Similarly, the importance of including patients' opinions, needs, and preferences contribute to a sense of control, self-will, and involvement which ultimately improves treatment outcome.⁵⁷ Thus, treatment adherence and success is achieved when patient's values, beliefs, and attitudes are respected and when patient's see themselves as decision-makers for their life.⁵⁸ Additionally, to understand and propose an alternative approach to the problem of compliance and to identify the role of nurses towards empowering patients in decision-making, Russell, Daly⁵⁹ demonstrate that shifting the power and authority towards patients and accepting patients as experts of their decision, health choices and their own lives enhance treatment adherence.

The relationship between autonomy, decision-making and adherence can clarify what consists patient's decision-making and how patients make decisions about their healthcare. According to Sandman, Granger,⁶⁰ patient autonomy consists of will or preference, decision, action, and the intermediate relation of "because". This finding favours the claim that self-determination of a person is guaranteed when preferences are one's own and when a person decides to realize their preferences and then act on their decisions. As a result, the underlying issue seems to be that when a person's preferences are their own; the more they decide in accordance with their own values and the more autonomous their will be which eventually will increase motivation to abide by the agreed treatment recommendations.

Values, Beliefs and Attitudes Reasons for Action (Treatment Adherence)

Human beings have values, beliefs, and attitudes that are developed through the interaction with family, friends, and community thus, a person's actions (their behaviour: either treatment adherence or non-adherence) depends upon their desires (their values) and what they accept to be true (their beliefs) about themselves and the world.⁶¹ This tells us that the values, beliefs, and attitudes we hold shape our thinking, perspective, and worldviews.

According to Scheibe,⁶¹

Value judgments refer to what is wanted, what is best, what is desirable or preferable, what ought to be done. They suggest the operation of wishes, desires, goals, valences, or morals. [p. 41–42]

It is our values which are our personal principles, standards, and qualities that shape our life perspectives and that guides how an individual makes choices. Beliefs originate from real experiences. Patient's belief influences healthcare choices, affects the way they interact with their health care providers, the way they perceive their treatment, and the degree of commitment towards their treatment (healthcare services).⁶²

Attitude can refer to a feeling, a belief, or a tendency towards a specific idea or object. It usually refers to the belief towards something and describes what we think about a particular thing.⁶³ Despite the difficulty of counting the number of attitudes that determine a particular act, we can agree that a certain social behaviour can be driven by an attitude.⁶³ Patient's attitude towards their medication, health provider or their illness usually affects their treatment adherence. As such, it is quite important to consider and incorporate our patients' values, beliefs, and attitudes while delivering healthcare service for a better treatment outcome.

Patients' perceptions, values, and beliefs play a significant, yet an often-overlooked role in treatment adherence. Davidson,⁷ in one of his well known and influential writings, challenges the long-standing philosophical perspective that claims intentions, beliefs, or desires cannot be the cause for action by affirming that any form of action involves a reason having both an attitude and a belief. Moreover, Davidson⁷ demonstrates how an action can be rationalized by linking one occurrence to another and argues that for a certain action there is a belief, motive, urge, desire, or want what he called "primary reason";⁷ that rationalizes why the agent performed the action.

Patients' decision to follow the recommended treatment is influenced to a large extent by their beliefs and attitudes concerning the disease, treatment, and trust in the skills of their health care providers. For instance, patients intentionally omit a few doses or alter the timing of the dose of their medications believing they are responsible for controlling their blood glucose level when it fluctuates.^{64–66} Doubting the effectiveness and benefit of medication can lead to modification or alteration of treatment regimen. For example, patients with diabetes revealed their concerns about the benefits of taking their medications and assert that their disbelief about their medication make them decrease the dose or discontinue the medications.^{67–73} Despite recognizing the advantage of taking medication for effective glucose control, patients with diabetes prefer to use alternative treatment methods or natural ways of treatment rather than prescribed medications.⁷⁴

Furthermore, in a cross-sectional survey aimed to identify the level of adherence among patients who started a new medication, Clifford, Barber⁵ demonstrate that intentional non-adherers have a lower perception towards the necessity of taking their new medication than adherers. Intentional non-adherers concerned highly relative to their need for treatment than both adherers and unintentional non-adherers. Similarly, Gadkari and McHorney¹² evaluate the relationship between patient's medication belief and intentional and unintentional non-adherence by interviewing 24,017 adult chronic illness patients. Authors tried to understand how respondent's belief affects the behaviour towards taking their medication and point out that self-reported undeliberate reasons for failing to take their medication by respondents were not real unintentional causes rather predictable and intentional reasons for non-adherence. According to Wroe (2002), the balance of individuals' reasons to take or not to take medication predicted the intentional nonadherence. The result of this study highlights how reasoning and reasons determine the behaviour of patients as well as healthy people towards their treatment plan.

The above evidence and argument do not only stress the role of individual patients but also the role of healthcare providers in providing the necessary information so that patients can make rational decisions and choose between

alternatives on behalf of themselves during their health service. We can thus, conclude that decisions are influenced by beliefs, attitudes, intentions, values, and perceptions which subsequently can impact how patients receive treatment and engage themselves in medical care.

Free Will, Decision-Making and Mental States: Implication for Practice

In this paper, we have explored the role of free will, beliefs, attitudes, values, intentions, and perceptions in treatment adherence and how these concepts, what we call “internal world” influence the decision-making ability of our patients. We also presented how the concept of free will, beliefs, attitudes, values, intentions, perceptions and decision-making can be used in our healthcare delivery especially in nursing science and practice.

It is crucial for nurses to know how patients perceive treatment and how their sense of agency and mental states (beliefs, values attitudes, intentions and perceptions affect) determine their commitment, determination and action (behaviour) towards the agreed treatment recommendations.^{51,75} Furthermore, helping patients to recognize their freedom of choice, willpower and sole responsibility for their own actions may assist patients to improve their illness experience and better manage their symptoms.⁷⁵

To achieve patient-centered care, involving patients in decision – making process is mandatory. Thus, effective involvement of patients is ensured when the capacity of choosing between alternatives is strong. As a healthcare provider, it is fundamental to acknowledge the fact that presenting ourselves (clinicians) as an authoritarian figure who knows everything is no longer practical. Shifting the power and authority towards patients and accepting patients as experts of their decision and their own lives is critical in treatment adherence.⁵⁹

Acknowledging the patient’s “internal world” is essential for effective treatment outcomes. Incorporating patient’s values, beliefs, desires, intentions and preferences in routine nursing care promotes patients’ sense of self-will, self-control and encourages collaboration between nurses and patients which ultimately will improve willingness to follow treatment recommendations.^{46,64}

Conclusion

Treatment adherence can be influenced by multiple unintentional factors beyond the client’s control. However, the predominant reasons for treatment adherence or non-adherence lie in the sense of agency, decision-making ability, values, beliefs, attitudes, and the willpower of our clients. It appears that mental states hugely impact a patient’s decision-making. The role of healthcare providers for effective treatment and the best patient outcome is very fundamental. Thus, this paper emphasizes the importance of promoting a sense of agency and integrating patients’ values, beliefs, attitudes, and intentions during the provision of healthcare. It is imperative to acknowledge the individual’s faculty to control and manage their illness in the face of taxing socioeconomic and cultural reality. On logical grounds, it is not sufficient to realize the significance of free will and mental states, but it is also indispensable for healthcare professionals to cultivate patient’s willpower to make a well informed, free decision based on their mental states for a successful treatment outcome.⁷⁵

Explanation

Zeus in mythology is a king and father of the gods.

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