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**The CREATION Model: A whole-person wellness model to facilitate patient-provider partnerships for health promotion**

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**Abstract**

**Introduction:** Guiding individuals to healthier behaviors is key to improving wellness, and primary care providers are uniquely positioned to help individuals recognize and implement needed health behavior changes. This paper describes a whole-person wellness model, the CREATION model, which focuses on the relationship between individual choice and physical, psychological, social, and spiritual health.

**Methods:** Several theoretical models, including two wellness models, the Wheel of Wellness and Indivisible Self, and three behavior change models, Social-Ecological Model, Reasoned Action Approach, and Transtheoretical Model provide the foundation for the CREATION model. The constructs and propositions of the CREATION model are grounded in these frameworks.

**Results:** The CREATION model considers the contexts in which health choices occur, including modifiable determinants of health. Elements of choice, rest, environment, activity, trust, interpersonal relationships, outlook, and nutrition are the constructs that comprise this model.

**Conclusion:** The CREATION model posits that interventions that focus on an individual's mind, spirit, environment, and relationships will influence choices in a continuous cycle that reinforces positive, healthy behaviors. The CREATION model can facilitate robust patient-provider partnerships that may help shift the healthcare delivery paradigm from an illness model to a wellness model.

**KEYWORDS:** Health Behavior, Health Promotion, Models, Psychological, Physician-Patient Relations

### **Riassunto**

**Introduzione:** Guidare gli individui a comportamenti più salutari è un elemento chiave per migliorare il benessere e chi fornisce le cure primarie è nella posizione ideale per aiutare gli individui a riconoscere e migliorare i necessari cambiamenti per comportamenti salutari. Questo lavoro descrive un modello di benessere che riguarda la persona nella sua interezza, il modello CREATION, che focalizza sulla relazione tra la scelta individuale e la salute fisica, psicologica, sociale e spirituale.

**Metodi:** Diversi modelli teorici, inclusi due modelli di benessere, denominati Wheel of Wellness ed Indivisible Self, e tre modelli di modifica del comportamento, il Social-Ecological Model, il Reasoned Action Approach ed il Transtheoretical Model forniscono il fondamento per il modello CREATION. I costrutti e le proposizioni del modello CREATION sono fondati su tali quadri teorici di riferimento.

**Risultati:** Il modello CREATION considera i contesti in cui le scelte per la salute si verificano, inclusi i determinanti di salute modificabili. Elementi relativi alla scelta, al riposo, all'ambiente, all'attività, alla fiducia, alle relazioni interpersonali, alla mentalità ed alla nutrizione sono i costrutti che comprendono tale modello.

**Conclusion:** Il modello CREATION postula che gli interventi che focalizzano sulla mente, lo spirito, l'ambiente e le relazioni di una persona influenzeranno le scelte nel ciclo continuo che rinforza comportamenti positivi e salutari. Il modello CREATION può facilitare una robusta relazione paziente-fornitore di cura che può aiutare a modificare il paradigma di cura da un modello di malattia ad un modello di benessere.

**TAKE-HOME MESSAGE:** The CREATION model synthesizes insights of existing wellness and behavior change models demonstrating that assessments and interventions targeting an individual's mind, spirit, environment, and interpersonal relationships are crucial to influencing choices around health behaviors.

**Competing interests:** none declared

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## INTRODUCTION

It is well established that lifestyle factors strongly influence health. Chronic diseases often stem from lifestyle behaviors, particularly nutrition and physical activity [1]. Yet, healthcare primarily focuses on the eradication of illness rather than the advancement of health and wellness, making it currently ill-equipped to respond to rising chronic diseases [2–4]. Healthcare must transition

from a model of disease management and episodic care to a model of wellness and preventive medicine [5–6]. The responsibility for the growing chronic disease problem is often placed on individuals and their personal choices [1]. However, research in health policy and psychology has demonstrated that social and environmental factors strongly influence an individual's health behaviors [1, 7–8]. Thus, to alter the contexts that contribute to unhealthy behaviors among employees and citizens efforts should also be made at the organizational and governmental levels.

While systemic interventions are vital, behavior change still must occur at the individual level. Guiding individuals to healthier behaviors is key to improving wellness, and primary care providers (PCPs) are uniquely positioned to help individuals recognize and implement needed changes [1, 9]. By forming patient-provider partnerships for health education and promotion, PCPs and patients can work together to identify and address the factors that influence unhealthy behaviors and ultimately strive to achieve wellness. But first, both patients and providers need to understand wellness better. Parsons, Slattum, and Bleich (2019) define wellness as "optimal well-being in physical, intellectual, interpersonal, spiritual, social, occupational, and emotional" domains [10]. Wellness is the process of achieving one's full potential [2]. The fact that it encompasses the mental, physical, and social domains exemplifies why health is contingent on wellness, and consequently, why the implementation of this broader perspective in healthcare practices is necessary [2].

The concept of assessing wellness and health behavior is not new. 'Healthy People 2000' [11] stated the importance of having valid measures of general health behaviors and specific health promotion behaviors [12]. Several models, such as the 'Wheel of Wellness' (WoW) and

‘Indivisible Self’ (IS) models, have been developed that encompass mental, physical, and spiritual wellness. Behavior change frameworks, such as the transtheoretical model of behavior change (TTM), reasoned action approach (RAA), and social-ecological model (SEM), provide a clearer understanding of the influences on behavior. These established theoretical models have influenced many health interventions. However, they have not successfully translated into clinical practice where PCPs can collaborate with their patients to foster healthy behaviors, maximizing the impact of these principles. Therefore, healthcare needs an explanatory and change model that incorporates principles from wellness and behavioral psychology in a format that discusses health behavior change at a level patients can understand.

This manuscript presents the CREATION wellness model founded on a philosophy consisting of eight elements that contribute to whole-person health. The CREATION model synthesizes insights of existing wellness and behavior change models, illustrating that assessments and interventions targeting an individual's mind, spirit, environment, and interpersonal relationships are crucial to influencing choices around health behaviors. Evaluating these elements of well-being is essential to developing and implementing person-centered wellness interventions.

## **METHODS**

A non-systematic review was conducted to collect research studies, theoretical articles, and review articles that examined both wellness models and health behavior change. The following databases were explored: PubMed, Google scholar, and CINAHL. The data searching period was not restricted to allow for foundational wellness and behavior change articles to be included. Final articles listed in the references comprises of peer-reviewed articles from 1988 to 2019. The search was conducted on PubMed and Google scholar using terms such as, ‘reasoned action

approach’, ‘transtheoretical model’, ‘social-ecological model’, ‘whole person health’, ‘wholeness’, ‘wellness model’, ‘wellness assessment’, and ‘health behavior intervention’. In terms of wellness model, the search was focused on the Wheel of Wellness and the Indivisible Self as they are the theoretical framework behind the Wellness Evaluation of Lifestyle (WEL) assessment and subsequent versions, as these comprehensive tools for assessing wellness and prevention, are the gold standard for wellness assessments [2]. The three behavior change models, ‘Social-Ecological’ Model, ‘Reasoned Action Approach’, and ‘Transtheoretical’ Model, were selected as they describe both the progress of behavior change and the individual, interpersonal, and environmental, and societal factors that influence choice and behavior.

## **RESULTS**

### ***Defining wellness***

A person-centered approach is holistic, individualized, respectful, and empowering, and should be the basis for wellness-based care [13]. This wellness approach needs to be more than just the acknowledgment of "optimal well-being in physical, intellectual, interpersonal, spiritual, social, occupational, and emotional" domains [10]. Swarbrick (2006) called wellness a "conscious, deliberate process that requires a person to become aware of and make choices for a more satisfying life," underscoring the importance of choice in wellness and health behaviors [14]. Swarbrick further defines wellness as a "process for creating and adapting patterns of behavior that lead to improved health in the wellness dimensions and to increased life satisfaction" [14]. These definitions explain why a successful wellness model must incorporate both wellness dimensions and behavior change processes.

### ***History of wellness models***

The pursuit of a wellness model and assessment originated almost 40 years ago with the Lifestyle Coping Inventory (Hinds, 1983), which examined lifestyle, nutritional, drug, exercise, environmental, problem-solving, and psychosocial habits that affect health and stress [12]. This model was followed by Hettler's Hexagon Model (1984), which identified six dimensions of healthy functioning - physical, emotional, social, intellectual, occupational, and spiritual [12].

These models neglected to emphasize psychological health. In response, Myers, Sweeney, and Witmer developed the WoW. This comprehensive model established the characteristics of healthy people to be used as a counselor's tool for developing personal wellness plans [12]. This model has a broad foundation rooted in theoretical concepts from the pursuit of self-actualization, developmental psychology, stress management, behavioral medicine, and ecology. It proposed five 'interconnected life tasks': spirituality, self-direction, which had 12 subfactors, work and leisure, friendship, and love. In its circumplex structure, spirituality, the core of the model, was the most crucial factor of wellness [15]. According to the model, these tasks interact with 'life forces', such as family, religion, education, and government, while global events influence both 'life forces' and 'life tasks'. This model highlights that wellness, both in the positive and negative direction, is a collective impact of diverse factors and "a way of life oriented toward optimal health and well-being," integrating body, mind, and spirit, allowing individuals to live "fully within the natural human community" [15].

The structure of the model was not supported by testing; thus, the model's construction required reexamination [16]. Aligning more closely with Alder's theory of holism, the IS model embraces the sum of the parts (the whole) and the influence of social context. The IS model includes five

primary domains: The Essential Self, Coping Self, Creative Self, Social Self, and Physical Self [16].

Within each domain, there were second-order factors that stem from the self-direction subfactors from the previous model, leading to a total of 17 subfactors. The first factor, the Essential Self, encompasses self-care, gender identity, cultural identity, and spirituality. The second factor, the Creative Self, refers to all the elements that enable individuals to establish their unique place in their social interaction, consisting of five components: thinking, emotions, control, positive humor, and work. The third factor, the Coping Self, refers to how individuals manage their responses to life events and include stress management, self-worth, realistic beliefs, and leisure. The fourth factor, the Social Self, refers to relationships with others and consists of friendship and love components. The fifth factor, the Physical Self, includes exercise and nutrition [16].

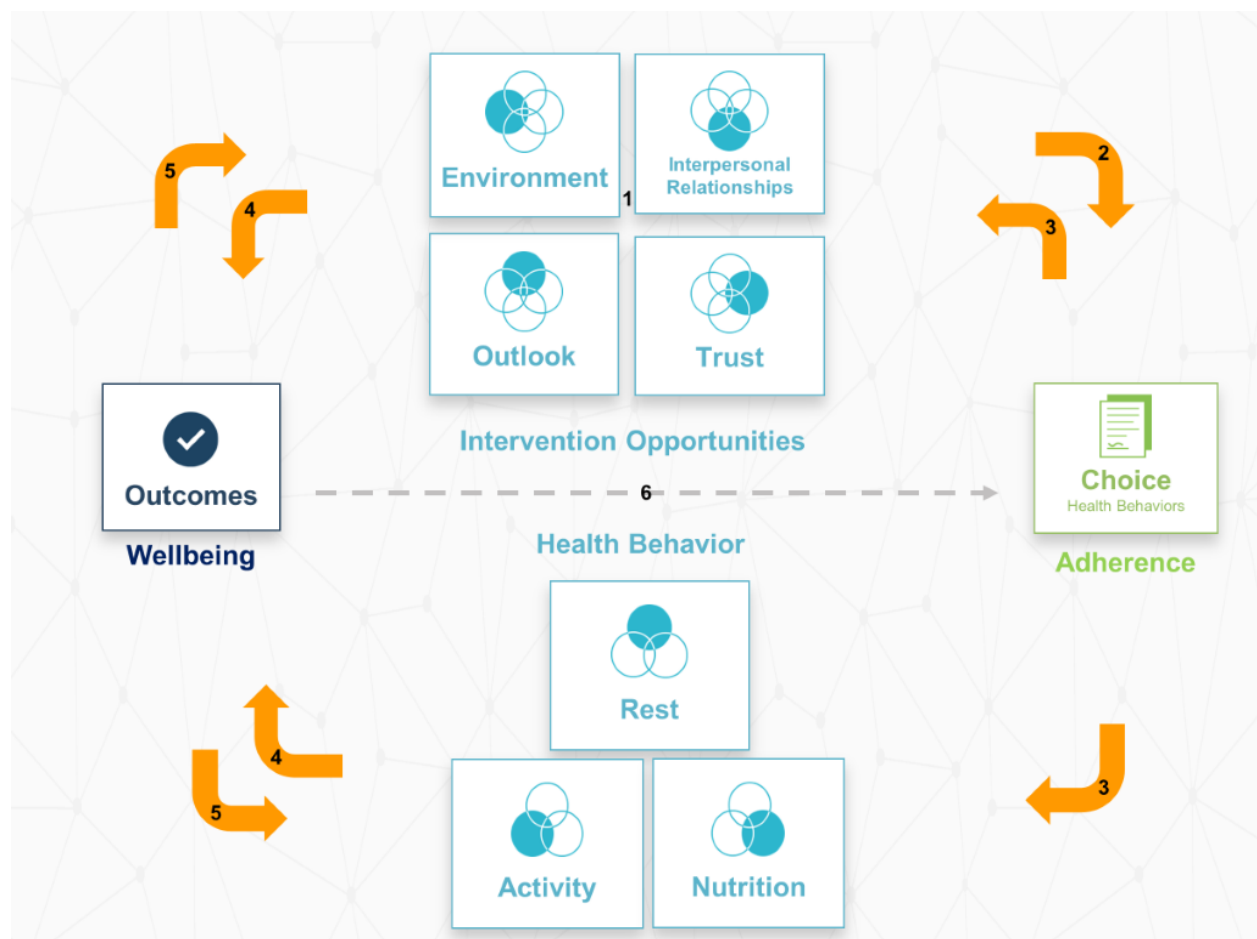
Additionally, the IS model includes environmental factors at the local, institutional, global, and chronometrical levels [16]. Chronometrical context is significant as people change over time, underscoring that both acute and chronic effects of lifestyle behaviors influence wellness [16]. Myers and Sweeney (2004) also intended for choice to be a significant component for the IS model in that wellness behaviors reflect intentional lifestyle decisions [16]. They envisioned that this model would enable practitioners to aid clients in understanding the influences of wellness, the interaction of those factors, and how positive change can take place by focusing on strengths instead of weaknesses. However, choice is more complicated than that. Several factors influence our decisions, many of which contribute to wellness. Therefore, the CREATION model addresses the need to identify and explain not only areas of opportunity for health education and promotion but also health behavior change.



Still, the development of a wellness model is only meaningful if it can translate into clinical practice. A systematic review of the measurement of wellness in clinical settings highlighted the need to develop a census on defining wellness and developing a standardized wellness instrument for the primary care setting to support "treating and preventing disease with health promotion" [2]. The next step will require a comprehensive model and assessment that are easy to use and understand and is vital for the collaborative partnership between patients and providers to successfully achieve the goals of physical, mental, spiritual, and social wellness.

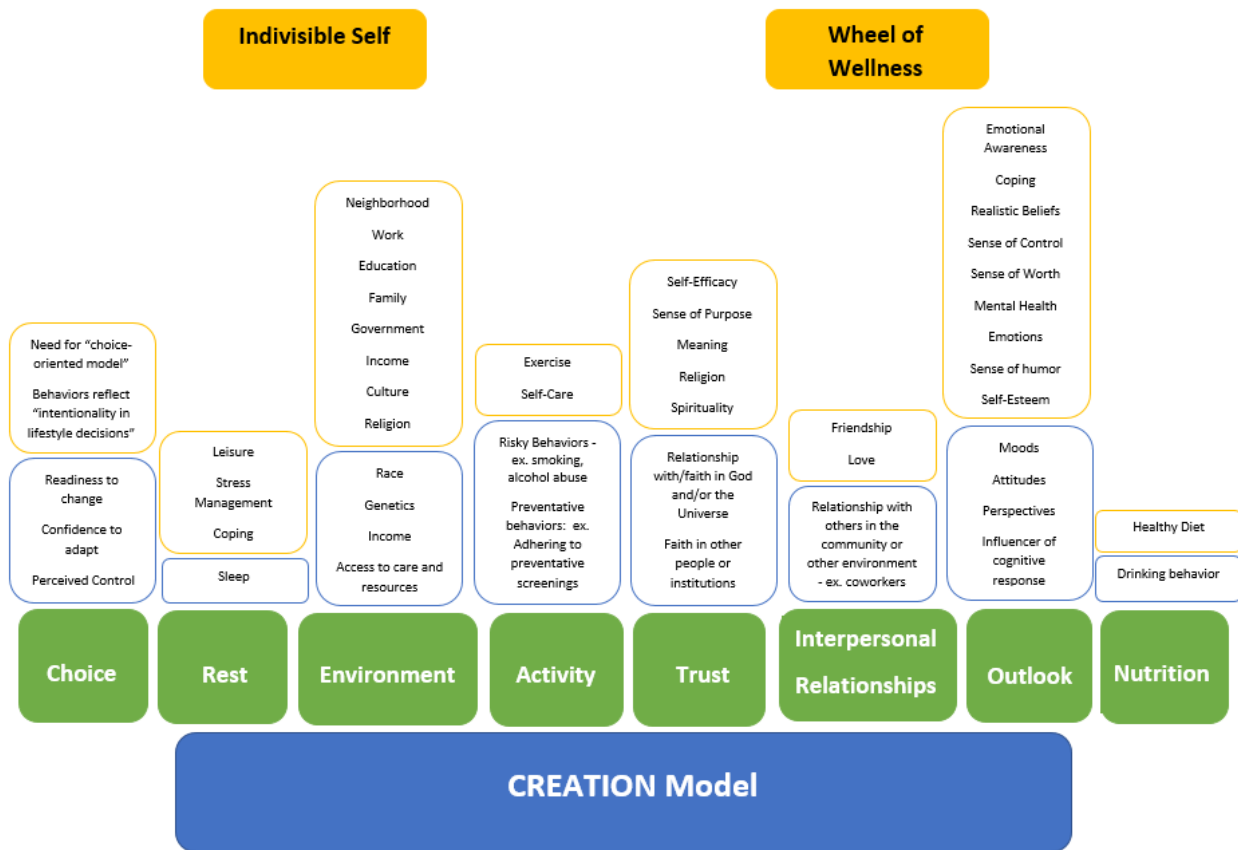
### ***Origins and development of the 'CREATION' Model***

CREATION is a whole-person wellness philosophy originated by AdventHealth, a multi-state, faith-based healthcare system. This philosophy originates from the Creation story in the biblical book of Genesis. It has eight whole-person health elements: Choice, Rest, Environment, Activity, Trust, Interpersonal Relationships, Outlook, and Nutrition. In its original version, the philosophy centered on the element of Choice as the driver of the other factors (i.e., good choices lead to good health), and all eight elements had equal weight in influencing overall wellness [17]. While the original CREATION wellness philosophy has biblical origins, this latest model reflects the understanding that interventions guided by one or more theoretical models are more likely to be successful; thus, is rooted in wellness and behavioral change theory to elicit a broader, more meaningful impact [18, 19].



**Figure 1.** The CREATION Wellness model.

The CREATION Wellness model (Figure 1), is influenced by theory in two ways: the definition of its constructs and how the constructs interact. The two previously mentioned wellness models - the WoW and the IS - shaped the meanings of the CREATION model constructs as shown in Figure 2. The behavioral change frameworks of Reasoned action approach (RAA), Social-Ecological Model (SEM) and Transtheoretical Model (TTM) provided the theoretical foundation for how the constructs of the CREATION model relate to each other. The use of these comprehensive wellness models and behavior change frameworks allows for the critical aspects of these models to be integrated into a straightforward model that is easy to understand.



**Fig. 2.** CREATION model constructs and their wellness model influences (in yellow).

### *Constructs in the CREATION model*

Choice is a central construct of the CREATION model. However, it is one of two constructs that were not defined explicitly in the WoW or the IS or connect with any of their factors. In the CREATION model, Choice is an intentional decision to take a possible course of action. This concept, along with a readiness to change and confidence to adapt, is more prominent in the behavior change frameworks of TTM and RAA. While the other wellness models did not explicitly include this concept, the implication of choice in wellness was evident.

Rest is the other construct that is also not explicitly reflected in either the WoW or the IS. Rest encompasses sleep, physical rest, mental and cognitive breaks, and emotional and spiritual

restoration. It also involves balance and stress management. Although the WoW and the IS do not identify rest within their physical domains, these models imply rest within other domains through the factors of stress management and leisure. Both components are critical concepts under the Coping Self within the IS, which is about controlling how one responds to negative influences. Rest is one of three constructs that are under the umbrella of health behaviors in the CREATION model. Environment encompasses an individual's social determinants of health, which are conditions in the environment that affect a wide range of health, functioning, and quality-of-life outcomes and risks [20]. In the CREATION model, Environment includes one's neighborhood, housing, safety, access to care, nutrition, activity resources, workplace, education, food, healthcare, and transportation. This element also includes the non-modifiable factors of race, genetics, and family history. Environment is a crucial opportunity for interventions to address modifiable factors contributing to poor health behaviors.

Activity is the second construct under health behaviors. It consists of not only physical exercise but also mental and spiritual activities. In the IS, Activity aligns with exercise under the Physical Self and self-care under the Essential Self. In the CREATION model, Activity includes both preventive behaviors, such as exercise and adherence to health screenings, and avoidance of risk behaviors, such as substance abuse.

Trust encompasses religion, spirituality, and connections with other individuals, and those in authority. Both wellness models highlight the importance of spirituality. The WoW defined spirituality as "awareness of a being or force that transcends the material aspects of life and gives a deep sense of wholeness or connectedness to the universe" [15]. It was the core of wellness on which other elements were built. Therefore, Trust in the CREATION model encompasses one's

relationship with God and the Universe, but it is not solely about religion and spirituality. Trust plays a significant role in an individual's wellness through self-efficacy, meaning, and purpose, and like Environment is another opportunity for intervention.

Interpersonal relationship links to the Social Self within the IS, which involves concepts of friendship and love. Similar to the previous wellness models, the CREATION model emphasizes how interpersonal relationships with friends, family, communities, and others can exert a positive or negative influence on health choices and outcomes. Isolation or lack of interpersonal relationships can negatively impact individual wellness.

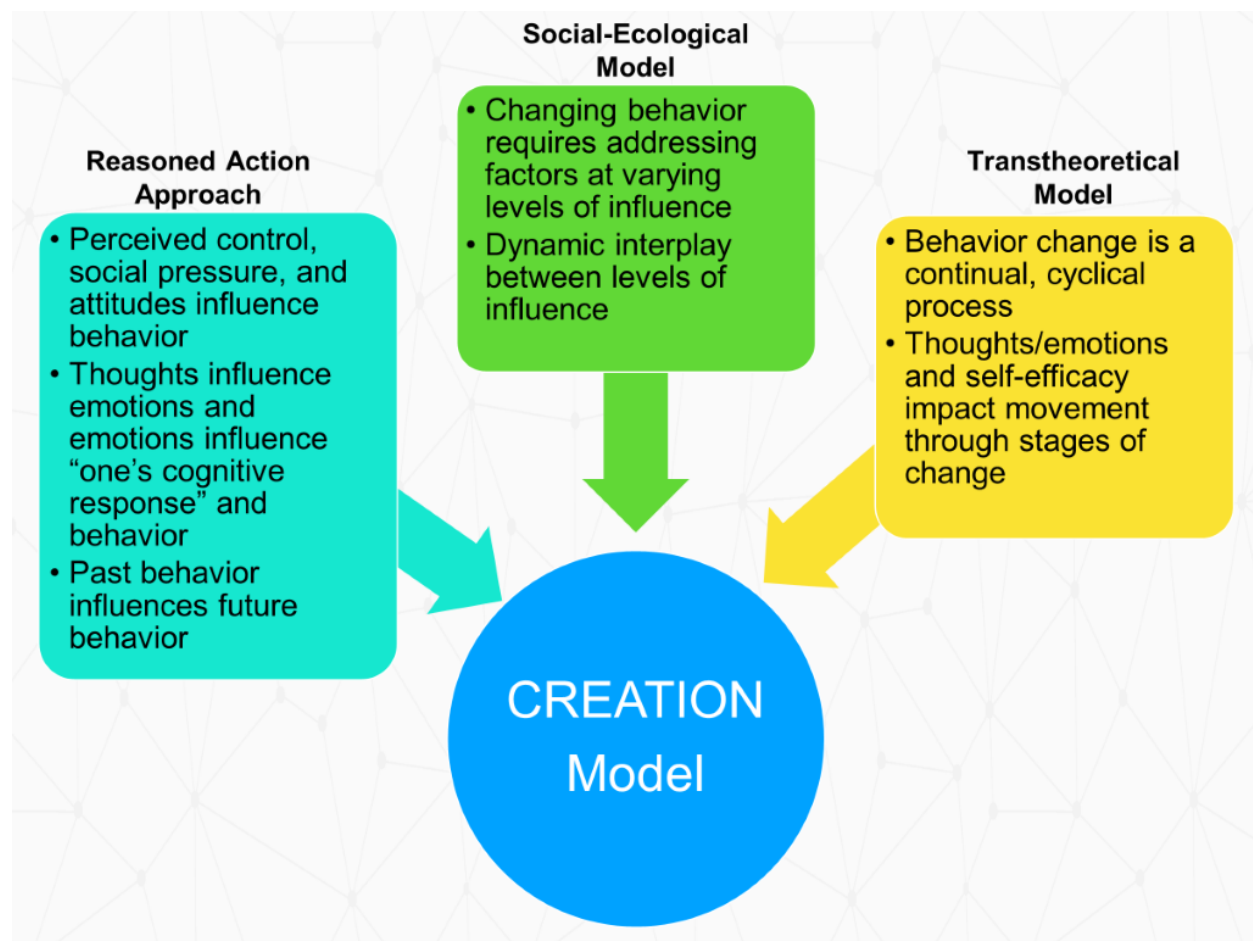
Outlook is the lens through which individuals view the world around them. It involves the sum of attitudes, perceptions, and psychological health and is the 'mind' element of the mind, body, and spirit paradigm. Emotional awareness, coping, realistic beliefs, sense of control, and sense of worth are factors from the previous models that influence this construct. Both the WoW and the IS highlight the importance of perceived control in physical and mental well-being. This same concept exists within the behavior change frameworks of TTM and RAA. Additionally, both models indicate that thoughts affect emotions, and emotions influence cognitive responses and behaviors. Collectively, these influences exist within the Outlook construct.

Nutrition is the third health behavior construct, and it is nourishment for the body and the source of energy for the mind. Evidence supports its role in both physical and mental wellness. A healthy diet and refraining from risky drinking behavior are essential to wellness and disease prevention.

Well-being is the final construct of the CREATION model. Well-being is viewed primarily as an outcome combining physical, spiritual, social, and emotional wellness. Patient-provider partnerships can aim to achieve such overall wellness using the CREATION model.

***How behavioral change theories influence the CREATION model***

After identifying and defining what is essential in wellness, it is imperative to consider next how these wellness constructs interact and contribute to ‘choice’ and, ultimately, health and wellness behavior. Consequently, the behavior change theories of TTM, RAA, and SEM influenced this aspect of the CREATION Model (Figure 3). While, individually, these theories do not provide comprehensive support for the interaction between wellness factors and health behaviors, collectively, they do imply that emotional, spiritual, physical, and environmental factors can impact choices, which in turn, influence health behaviors and, ultimately, wellness.



**Figure 3.** How behavior change theories Reasoned action approach (RAA), Social-Ecological Model (SEM) and Transtheoretical Model (TTM) influence the CREATION Model.

### *Transtheoretical model of behavior change*

TTM states that health behavior change involves progress through six stages of change: Precontemplation, Contemplation, Preparation, Action, Maintenance, and Termination [19, 21]. From Precontemplation, which is the stage that an individual does not intend to act within the next six months, to Termination, in which an individual has no temptation and complete self-efficacy regarding the change, TTM describes the entire intrapersonal process of choice and behavior. There are two significant ways that TTM influenced the CREATION model. First,

movement between steps is often cyclical rather than linear because behavior change is a continual process [19].

Similarly, the CREATION model is cyclical as wellness is an ongoing journey rather than a destination. The second way TTM influences the CREATION model is how it overlaps with the wellness models. Like WoW and IS, TTM stresses the importance of self-efficacy and thoughts/emotions (TTM's process of change) on moving through the stages of change and transitioning toward proper health behaviors. This overlap largely influenced the placement of Trust and Outlook in the CREATION model.

### ***Reasoned action approach***

The RAA model is the behavioral model that most closely resembles the CREATION model. It justifies the role that Outlook, Interpersonal Relationships, Environment, and Trust (Self-efficacy) play in intention and behavior. In this approach, background factors, such as individual factors (e.g., mood, personality, values), social factors (e.g., age, gender, race, education, income, religion), and information factors (e.g., knowledge, media) contribute to beliefs about positive or negative consequences of behavior (behavior beliefs), whether others would approve or disapprove of behavior (normative beliefs), and whether personal and environmental factors, such as enough time and financial resources, support or hinder behavior (control beliefs) [22, 23].

These beliefs then lead to attitudes and perceptions, which influence one's intention to conduct a specific behavior. In this model, intention is a direct precursor to behavior. Actual behavioral control (relevant skills, ability, and environmental factors) impacts behavioral intention, as these factors act as barriers or facilitators of behavioral performance in one's environment [23].



RAA also considers the importance of past behavior. Like the Indivisible Self, RAA notes the significance of chronometrical context (people change over time) and that past behavior influences current behavior. The RAA model draws an arrow from behavior back to background factors. The CREATION model's circular structure draws from these influences and allows for past behavior to influence present behavior. Thus, while well-being is considered an outcome of behavior and environment, it also acts as an input by shaping future behavior.

### ***Social-ecological model***

SEM posits that there are five levels of influence on an individual's behavior: individual, interpersonal, organizational, community, and policy, highlighting the linkages and relationships among multiple factors affecting health [24, 25]. Thus, SEM views individuals as part of a more extensive social system that includes multiple levels of influence that impact behavior, such that any change of one level will provoke change on another level [19]. This view implies that "in order to change behavior, it is necessary to address factors at varying levels of influence" [19]. This model underscores that the determinants of health are also the determinants of health behavior and health choices. Furthermore, it shows the impact policy, community, institutions, and interpersonal factors have on intrapersonal factors and that a comprehensive approach is required to improve health-related choices and, ultimately, health and well-being outcomes [19]. Lastly, the 'dynamic interplay' among the levels of influence in SEM and the group subfactors in the WoW and IS models, support the overlapping of the constructs in the CREATION model [19]. The boundaries between Environment, Interpersonal Relationship, Outlook, and Trust are not firm, and neither are the boundaries between Rest, Activity, and Nutrition. Trust and Outlook, for example, cover similar concepts, as self-efficacy can exist under both domains. The

constructs heavily influence each other, and it is as essential to study their interactions as it is to examine the relationship between these constructs and Choice.

### ***Propositions of the CREATION model***

The CREATION model postulates that the four elements of Trust, Interpersonal Relationships, Outlook, and Environment are the opportunities for intervention (See #1 in Figure 1) to shape the element of Choice (See #2 in Figure 1). Therefore, the model acknowledges that choices regarding health and wellness are not made independently of an individual's circumstances. As an intervention supports, modifies, or improves any of the four interventional elements, the subsequent outcome would be the impact on health-related choices (See #2 in Figure 1). This relationship between Choice and the four interventional elements is bidirectional, as one's choices can also influence one's mind, spirit, relationships, and environment. Similarly, Choice also impacts the health behavior elements of Rest, Activity, and Nutrition (See #3 in Figure 1).

Choice influences physical health because it advocates adherence to and compliance with preventive behaviors or prescribed treatment for existing conditions and aversion to risk behaviors, which all fall under Activity. For example, an Outlook intervention to change an individual's perception of oneself may then positively influence Choice around stress-management (Rest), diet (Nutrition), and exercise (Activity). It may also prompt the individual to seek spousal support (Interpersonal Relationships) for these lifestyle choices. Therefore, the impact of addressing the psychosocial influences of Choice can have broader implications for an individual's wellness.

Ultimately, the changes in one's body, mind, spirit, relationships, and/or environment contribute to physical, mental, spiritual, or social well-being (See #4 in Figure 1). Health-related choices

impact the body, mind, environment, social, and/or spirit elements, which then influences the outcomes of physical, mental, and spiritual well-being. Well-being may reinforce the body, mind, and spirit elements, which ultimately impacts choice (See #5 in Figure 1), and it may also directly influence health-related choices (See #6 in Figure 1).

### ***Research on constructs in the CREATION model***

Much evidence exists to support the associations between diet, exercise, sleep, and health outcomes. Additional research has identified the influence of psychological, social, spiritual, and environmental factors on these health behaviors and overall well-being. This evidence lends support for focusing interventions on Outlook, Interpersonal Relationships, Environment, and Trust.

In terms of Outlook, attitudes, emotions, moods, and perspectives affect cognitive choices [26–28]. Also, attitudes, motivation, norms, and perceptions have been linked to health behaviors (e.g., physical exercise, sleep, vegetable consumption) and disease outcomes [27–32].

The literature also illustrates the influence of Interpersonal Relationships. Shaikh et al. (2008) found, in their analysis, that social support was one of three strong predictors of fruit and vegetable intake [33]. Sheats' (2013) analysis of vegetable buying and eating patterns supports this finding as they found a significant correlation of family influence (perceived norm) and these behaviors [31]. The same is also true of Exercise, which was demonstrated by both an SEM-focused study and an RAA-focused study [28, 29]. Regarding mental health, high-quality relationships protect against depression [34]. Moreover, interventions, such as dyadic patient education, improved adherence to medically indicated lifestyle behavior changes [35].

Negative relationships or lack of quality relationships are influencers of health as well [34]. Interpersonal violence negatively impacts health outcomes [36]. Loneliness is associated with harmful health behaviors, such as smoking, alcohol consumption, and overeating, which individuals engage in as a psychological relief mechanism [34]. Social isolation also is associated with decreased adherence to provider recommended treatment as individuals use online resources instead [34]. Environmental influences on health are prominent throughout the literature. Housing instability and food insecurity are known to affect health outcomes [36]. Arevalo and Brown (2019) found transportation to be a factor of organized exercise among an African American population, indicating a need for increased access to exercise in underserved communities [28]. In their application of SEM to assess exercise behavior in African American women, Fleury and Lee (2006) found that in addition to affordability and accessibility, community factors, such as neighborhood safety and access to sidewalks, influenced physical activity [29].

The work environment is another environmental factor that influences health and health behaviors. Notably, previous research links a sense of control over job responsibilities to depressive symptoms and exhaustion (Outlook) [37] and work-family conflict (Interpersonal relationships) [38, 39]. Studies have also shown that work-family conflict impacts preventative health behaviors, such as exercise, sleep, and the consumption of fatty foods [39–42]. Workplace bullying or mobbing in the work environment may also generate negative health outcomes. Meta-analytic review of the health effects of workplace bullying indicated that there were both physical and mental health consequences for victims [43]. In addition, workplace bullying has been associated with decreased sleep quality [44] and with physiological responses such as lower

salivary cortisol [45]. Outside of self-efficacy, the influence of Trust on health behaviors is less understood. Self-efficacy is well-rooted in behavior theories and thus is strongly linked to health outcomes and change behaviors [27]. Self-efficacy has been associated with buying and consuming fruits and vegetables and meeting physician recommendations [29, 31, 33, 46]. However, Trust has an impact on health and health behaviors beyond the role self-efficacy plays in Choice. Religious beliefs may influence health choices associated with locus of control (i.e., my health is in God's hands) [47, 48], as well as trust or mistrust of the healthcare establishment [49].

Alternatively, religious individuals who perceive their body as a temple do not consume alcohol or use tobacco products [50]. Park et al. (2009) support this concept as they found that among cancer survivors increased spiritual experiences led to increased motivation to take better care of themselves, and ultimately improved health behaviors [51]. Furthermore, Park et al. (2009) found that religious activity and spiritual experiences were associated with following physician's advice, taking medications as prescribed, eating appropriate servings of fruits and vegetables, exercising, and positive psychological well-being [51]. These authors also demonstrated the interplay between Outlook and Trust (religious/spiritual experiences). High levels of self-assurance mediated the relationship between exercise and adherence to doctors' advice and spiritual experiences, while guilt and shame mediated the relationship between frequency of alcohol use and lack of adherence to doctors' advice and religious struggle.

Still, a review of the impact of religion/spirituality on health concluded that while it mostly has a positive impact on health, the results are still mixed [52]. Koenig (2012) found that more than half of the identified studies reported that religion and spirituality were negatively associated

with depression (67%) and anxiety (55%) and positively associated with exercise (68%) and healthy diet (62%) [54]. Yet, other studies did not show similar conclusions. A possible reason for the mixed results centers on the issue of studying religion and spirituality. There is a lack of consensus on the definitions of religion and spirituality [53, 54]. They are highly complex concepts [53] often used interchangeably, and they should not be. While both concepts fall under the CREATION model construct of Trust, both are distinct notions, as spirituality can stand on its own. When Jim et al. (2015) defined spirituality as meaning purpose and spiritual connection, they were able to demonstrate an association with physical health within a large cancer patient population [55]. Therefore, it is essential to integrate spirituality assessment into clinical assessment.

While evidence-based behavior models have linked several of the CREATION concepts to health choices and behavior, a significant gap exists for Trust. There is room to better define and assess this concept, and the CREATION model provides a basis for examination. Moreover, this model presents the opportunity to assess Trust within the context of other influencers of health behavior (Environment, Outlook, and Interpersonal Relationship), which aligns with theory. SEM, for example, underscores how multiple factors influence individual health behaviors and the complex interaction between all levels of influence [50]. The CREATION model has this as its framework, and it is vital to understand how, together, these concepts impact choices and, ultimately, wellness.

### ***Application of the CREATION model***

Given its focus on prevention and wellness, the CREATION model's place is in the primary care setting. It is a person-centered model that focuses on the modification of an individual's

socioeconomic, psychological, and spiritual factors to effectively improve health choices and behaviors [56]. To be enacted, PCPs must begin with baseline assessments of the four interventional elements of Trust, Interpersonal Relationships, Outlook, and Environment and the three health behavior elements of Rest, Activity, and Nutrition. The interventional elements can act as either facilitators of or barriers to the element of Choice. By assessing these concepts within an individual, PCPs can help patients to identify their opportunities for improvement and guide them to related resources or interventions that can address any needs.

Resources for well-being exist beyond the walls of standard healthcare systems. To provide the best care for patients, healthcare systems must establish alliances with community networks, as these partnerships may extend support services beyond the reach of medical offices and hospitals. In doing so, PCPs and healthcare systems can facilitate and support lifestyle behavior change.

In addition to community partnerships, adoption of the CREATION model by PCPs will require organizational commitment to change current practices. A change of workflow would be necessary for healthcare professionals tasked with assessing and documenting Choice, Rest, Environment, Activity, Trust, Interpersonal Relationships, Outlook, and Nutrition elements. Implementing the change would add to the clinical workload and a heavy documentation burden. Case managers, social workers, patient navigators, and outreach coordinators also must be familiarized with available community resources for possible mental, spiritual, social, and environmental needs, as identifying an unmet need creates an obligation to address it. Provider education on the importance of these elements would be necessary to enable them to collaborate with patients to improve health behaviors.

## **DISCUSSION**

The increasing prevalence of chronic diseases requires a shift in healthcare practice. Research has demonstrated the link between consistent healthy behaviors and reduced risks of chronic diseases [57], which has made understanding the determinants of health behavior an important pursuit [58]. Designed to guide patient-provider partnerships for health education and promotion, the CREATION model illustrates a whole-person approach to wellness and explains the influences on health behavior choices. The CREATION model is comprehensive as it integrates the physical, mental, spiritual, social, and environmental facets of an individual's health behavior and overall well-being. It also builds on a theoretical foundation of the wellness models of the WoW and the IS and the behavior change frameworks of TTM, RAA, and SEM.

The CREATION model contributes to the literature by combining the following components of existing models and frameworks: 1) broad, multi-level context of health behaviors; 2) influences on health behaviors; and 3) continual process of change. This intervention-driven model emphasizes the modifiable psychological, social, environmental, and spiritual elements that influence a person's intention to perform a behavior. This is especially relevant to the Environment construct, which accounts for both modifiable and non-modifiable determinants of health, including socioeconomic factors. Addressing the environment ensures the individual has the resources and agency required to facilitate positive choices while considering the context in which those choices must occur. This model is inclusive of tangible social determinants, such as transportation and housing, and the less tangible social determinants, such as religious and spiritual beliefs, that are related to the elements of Trust, Interpersonal Relationships, and Outlook. Interventions targeting only tangible determinants may be less effective if the



individual lacks meaning and purpose. Choices regarding health behaviors are also contingent on mental and spiritual wellness.

PCPs play a crucial role in guiding individuals to better health choices. Provider-patient shared clinical decision making improves patient outcomes [59], and PCPs have a significant responsibility to support preventive behaviors. There is a growing trend toward lifestyle medicine, which has facilitated this broader perspective on health, although more significant consideration of environment and spirituality is needed. Lifestyle medicine highlights many of the factors identified in wellness and facilitates the use of assessments of those concepts. Still, again, understanding the ‘why’ behind choices is missing. The CREATION model addresses this gap. It has the potential to be used within the adolescent population as the presentation of the CREATION concepts are less complicated than other theoretical models, facilitating prevention and promoting healthy behaviors in the beginning stages of life.

Lastly, in healthcare practice and delivery, it is essential to ‘meet people where they are’, and the CREATION model facilitates this notion. This model does not presuppose the absence of disease as a requisite for being well. It does not assume that whole-person health as an outcome is identical for everyone. While the objective is ultimately to achieve better physical, mental, spiritual, and social health, the goal of an intervention guided by the CREATION model is to impact health-related choices, regardless of where the individual might be within the cycle of the model.

### ***Study limitations***

The CREATION model is most appropriate for instances of wellness, prevention, and chronic health conditions. It is not applicable in many cases of acute or traumatic care, particularly those

that are lower acuity and require a relatively brief interaction with a care provider, such as a walk-in or urgent care clinic. It would be challenging to have a patient share intimate details around faith and mental health in such a limited transactional setting. Health choices that impact well-being also are less controllable by patients during these episodes. Furthermore, for providers, there would be few suitable opportunities to assess mental, spiritual, social, and environmental elements formally and select appropriate interventions.

Effectively measuring the outcome of well-being also is challenging because there is no consensus on a definition or method of assessment. The concept of well-being is difficult to measure because its iterations vary from quality-of-life to equilibrium to health [60]. An instrument to measure well-being in the context of the CREATION model is currently in development for several populations.

## **CONCLUSION**

In this research, we have developed a new model, named the CREATION model, aimed to be both an explanatory and change model that incorporates principles from wellness and behavioral psychology in a format that discusses health behavior change at a level patients can understand.

The CREATION model can guide the systematic assessment of whole-person health in individuals by meeting patients where they are on their wellness journey. Based on both evidence-based wellness models and behavior change frameworks, this individualized approach can enable collaborative patient-provider partnerships to improve health behaviors and overall wellness. This model can play an essential role in facilitating the paradigm shift in healthcare delivery from an illness model to a wellness model. Understanding an individual's physical,

mental, social, and environmental well-being is imperative to achieving this model of healthcare delivery.

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