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# Bridging the Gap Between Health Psychology and Philosophy: An Existential Approach to Promoting Physical Activity

### **Authors' contribution:**

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

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## **ABSTRACT**

Participation rates in a number of health-related behaviors, such as physical activity, have shown recent declines. To promote participation, psychological health behavior change theories have been developed to understand and help identify relevant psychological processes. Such processes can then be targeted within interventions utilizing specific behavior change techniques (BCTs). Although the use of these theories and BCTs is useful in facilitating change, such work could be enhanced through the inclusion and consideration of philosophical positions. Existentialism suggests that the absurdity and meaningless of human life allows the individual to create their own meaning within a behavior. This philosophical position thus places meaning and individual purpose at the center of human behavior. The purpose of this article is to connect the theoretical insights and BCTs outlined within health psychological behavior change theories with the philosophical position of existentialism. The integration of this philosophical position, and potentially many others, with psychological ideas may provide useful insights into the promotion of health-related behaviors.

### **KEYWORDS**

Existentialism, psychology, worldview, meaning in life

# Introduction

Despite the benefits of engaging in health behaviors such as physical activity (PA), participation rates continue to decline. For example, it has been shown that approximately one in four adults do not meet the global recommended guidelines for PA (Rhodes, Janssen, Bredin, Warburton, & Bauman, 2017). The success of changing health-related behaviors has been demonstrated through the development of interventions underpinned by psychological health behavior change theories (Taylor, Conner, & Lawton, 2012). Constructs within these theories attempt to identify the social cognitive determinants that align with a healthier lifestyle (Conner & Norman, 1996). These may, for example, attempt to understand how one evaluates perceived expectancies and consequences (attitudes) towards a behavior. Interventions are then developed using specific behavior change techniques (BCTs) and methods for change. Thus, the development and implementation of a successful intervention is dependent upon a) the theory identifying appropriate psychological targets and b) the application

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of BCTs altering such targets. However, despite the popularity of such models, interventions successfully facilitating behavior change have yielded limited success (Prestwich et al., 2014a). One potential issue is that these theories tend to neglect the global beliefs or world views that people hold. Existentialism is one type of world view, which posits that an individual has the choice to place meaning within their life and behavior. Therefore, it could be that constructs (or beliefs) identified within health behavior change theories could benefit from an existential understanding of the self.

The purpose of this paper is to make a link between psychological theories targeting health improvements and the philosophical position of existentialism. More specifically, we argue for the application of existentialism to the recent scientific progress in health behavior change psychology. We believe this work may facilitate the development of evermore successful interventions promoting participation in health-related behaviors. We hope that such a link encourages future connections between health psychology and philosophy. We first provide context by introducing health behavior change theories and BCTs. Following this, we introduce the position of existentialism and align this approach with the theoretical ideas within health psychology. Finally, we suggest ways in which BCTs can link with the philosophical position of existentialism.

# Behavior change theories

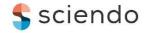
The decline in health-related behaviors can be operationalized at a number of levels including the individual, community, and policy (Johnston, Delva, & O'Malley, 2007). Ecological approaches typically involve community and policy practices influencing behavior (McLaren & Hawe, 2005). The most widely used psychological behavior change theories however, aspire to operate at the level of the individual. Such theories attend to health-related problems by identifying the social-cognitive factors associated with behavior. Such factors are predominantly explained through conscious determinants (i.e., attitude, intention, self-efficacy). One of the most popular social-cognitive theories is the Theory of Planned Behavior (TPB; Ajzen, 1985). To promote change, the TPB targets three types of beliefs: behavioral, normative and control. These sets of beliefs are then theorized to influence attitude, subjective norms and perceived behavioral control (pbc), respectively. These constructs then exert influence on behavior through behavioral intentions. Following the successful identification of important beliefs, such beliefs would then be targeted within an intervention to bring about change.

Another popular theory is Social Cognitive Theory (SCT; Bandura, 1986). SCT outlines the importance of self-efficacy, outcome expectancies, and goals in influencing behavior. An individual lacking the relevant beliefs towards accomplishment (i.e., self-efficacy) and a negative expectancy is unlikely to be inclined to perform the behavior. For example, lacking the belief to successfully engage in PA for 30 minutes is likely to prevent an individual from doing so. Similarly, believing there are no positives to wearing protection during intercourse means the likelihood of not wearing protection would be greater than doing so. Like the TPB, an intervention would be developed to target these constructs which would, hopefully, lead to successful change.

There are a number of other models of social cognition outlining similar conscious processes (i.e., Health Action Process Approach, Schwarzer, 1992; Health Belief Model, Rosenstock, 1974; Protection Motivation Theory, Rogers, 1983). However, rather than being exhaustive, the key message is that such models engender to change salient conscious thoughts.

# **BCTs**

Irrespective of the adopted social-cognitive model, identifying the relevant cognitive processes is, however, only the first step towards change. Changing these psychological determinants depends heavily on the selection of appropriate BCTs. BCTs are the 'active ingredients' involved in changing behavior (Michie, Wood, Johnston,



Abraham, Francis, & Hardeman, 2015) and thus provide important information on the content of interventions. BCTs move from 'what' to change to 'how' to do so. To provide a standardized language when referring to specific BCTs, taxonomies have been developed. For example, Abraham and Michie (2008) identified 26 BCTs commonly used to change PA and dietary behaviors (i.e., 'provide information about the behavior' & 'provide information about others' approval'). This number was increased to 40 BCTs within the CALO-RE taxonomy (Michie et al., 2011) and to 93 within the BCTT (v1) (Michie et al., 2013), with the latter applying to behavior in general. Such taxonomies have enabled researchers to identify the most commonly used BCTs (i.e., Conroy, Yang, & Maher, 2014), the most effective single (i.e., Michie, Abraham, Whittington, McAteer, & Gupta, 2009) and combination of (i.e., Dusseldorp, van Genugten, van Buuren, Verheijden, & van Empelen, 2014) BCTs in changing behavior, and the BCTs most effective in altering specific psychological processes (i.e., McDermott, Oliver, Iverson, & Sharma, 2016; Prestwich et al., 2014b; Prestwich et al., 2016).

In sum, the development of a scientific approach to behavioral psychology has gathered significant pace within the past couple of decades with research moving from *what* to change (i.e. determinants) to *how* to do so (i.e. BCTs). However, although models have been found to predict behavior well, effect sizes for behavior change interventions have been relatively small. To increase intervention effectiveness, we believe there is an opportunity to integrate philosophical ideas within these models. In accounting for an individual's world view (or *weltanschauung*) and personal meaning, existentialism is one strand of philosophy we believe has promise. We will now introduce existentialism, followed by its relationship with health psychological theories.

# Existentialism and one's individual search for meaning

Existentialism is a branch of humanism that attempts to understand individual's search for meaning (Bullock, 1985). Despite the variety of ways in which it is operationalized (Macquarrie, 1972), the main premise is that individuals are free in how they create meaning to their life (May & Yalom, 1995). Developed from the work of Camus, Sartre and Kierkegaard, existentialism aims to uncover the individual's pursuit of a personal identity (Baruth & Manning, 2007). This approach is in opposition to nihilism, which denies the existence of an objective meaning. Existentialism therefore attempts to escape nihilism, with nihilism seeing such attempts as nothing more than an illusion.

According to Camus, the only serious philosophical problem was suicide. Man attempts to discover a meaningful reason to remain alive; a need to find an objective purpose. But this attempt is futile. However, rather than attempt to end one's life, which could be easily rationalized given a life void of meaning, Camus suggested an alternative:

The realization that life is absurd cannot be an end, but only a beginning. This is a truth nearly all great minds have taken as their starting point. It is not this discovery that is interesting, but the consequences and rules of action drawn from it. (Sagi, 2002, p. 43)

This act of meaning can be understood within the myth of Sisyphus, one of Camus's famous writings. The main character (Sisyphus) was condemned to repeatedly rolling a rock up and down a mountain. Once the rock had reached the summit, it then proceeded to roll back down the hill due its weight. As a consequence, Sisyphus was then required to repeatedly undergo the activity. This hopeless labor was seen as an ideal way to punish Sisyphus. Despite these intentions, Sisyphus, to their amazement, was rather content with the activity.

The actions of Sisyphus reflect those within the human condition. That is, humans are born into an utterly meaningless world but, rather than choosing suicide, a number of potentials arise. It is from this moment of absurd that an existential pursuit of meaning can be undertaken. Therefore, one must undergo existential angst before recognizing the value in the approach. Similar to this reasoning, Sartre (1956) stated that 'existence precedes essence'. In comparison to a clock, for example, individuals are not assumed to have any predefined



purpose. A chair is seemingly designed to support however, removing one of its legs alters its essence. As Sartre, Kulka and Elkaïm-Sartre (2007) state: 'man first of all exists, encounters himself, surges up in the world-and defines himself afterwards' (p. 30). Thus, an individual defines what they become upon entering the world.

In summary, existentialism is an ontological position concerned with the human condition, the question of existence and the search for meaning. The position asserts that meaning can be found within the absurdity of living and, similar to how an atheist not subscribing to an all-encompassing god need not end one's life, an existentialist not believing in an objective meaning need not too. Put simply, one can find happiness in a world devoid of any meaning. This view of one's self can be associated with theories of health behavior change and the theoretical constructs within them. These will now be discussed. This drive for meaning may be encompassed by a myriad of behaviors, some of which may not function to improve morbidity, but nevertheless are enjoyed by the individual (e.g. smoking cigarettes).

# Relationship with behavior change theories and constructs

Theories of health behavior change primarily focus on the individuals' motives for change. As previously mentioned, such models attempt to identify and modify issues concerning motivation (intention, attitude) and, in some instances, implementation (volition, intention-enactment). Regarding the former, this could include changing perceptions towards the behavior (attitude), understanding social pressures (norms), and/or increasing behavioral competences (self-efficacy). Although such theories target the salient thoughts one has (i.e., of behavioral consequences, competence), they do not necessarily consider the global beliefs one may hold. In fact, global views are only considered within a small number of behavior change theories.

Locus of Control (Rotter, 1966) pertains to how much influence an individual perceives to have over life's events. An individual can either have an internal locus of control or an external locus of control. In possessing the former, the person believes they are the driver of behavior and how life is shaped is down to them. An individual possessing a more external locus of control, however, believes they are at the mercy of fate or chance. Self-determination theory (SDT; Deci & Ryan, 1985), which takes an organismic approach (Hagger & Chatzisarantis, 2009), also addresses global self-beliefs. Within this theory, motivation can be developed either autonomously or through control. Those autonomously motivated sense a degree of volition and freedom within the behavior whilst also feeling 'that their actions represent their true selves' (Hagger & Chatzisarantis, 2014, p. 64). In contrast, an individual motivated through control engages in tasks due to internal or external pressures (i.e., rewards, praise).

Although these theories may apply to aspects of the self, they do not consider the existential meaning within such tasks. For example, an individual could reasonably believe their behavior to be at the helm of chance, yet still place meaning within the given task. Similarly, a behavior performed due to autonomous motives may not necessarily involve the existential process, specifically that of meaning. Thus, whether you believe yourself to be in control of outcomes or whether you are pursuing outcomes for autonomous reasons, this does not include an existential self. Existentialism therefore differs from those behavior change theories that apply to aspects of the human condition.

In addition to these theories, individual constructs within health psychological models also link with the self and could thus also relate to an existential framework. For example, Bandura's (1986) self-efficacy construct, which is defined as 'people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives' (Bandura, 1994, p. 72), applies an agentic perspective to human behavior. It is theorized that those with higher self-efficacy towards a behavior are more likely to undertake the behavior, continue in the face of difficulties, and exert greater effort. As such, it is desirable to ensure individuals consciously believe they have the ability to undertake a behavior. Similarly, within the TPB,



pbc applies to the perceived ability one has to perform the behavior (Ajzen, 1985). Those exerting greater levels of pbc are more likely to participate in PA (Plotnikoff et al., 2011).

Similar to distinctions at the theoretical level (i.e., theories applied to the self), distinctions between these constructs and existentialism also exist. For example, an individual could have the relevant efficacy beliefs to engage in a behavior, yet lack meaning in the task. They could also possess the relevant control (pbc), yet not have meaning in the behavior. As such, existentialism also differs from these individual constructs, as well as theories addressing global self-beliefs. Subtle differences amongst these constructs and theories also mean their contribution need not be equal within certain behaviors. For example, one may believe they are in control of one's life (internal locus of control), yet not believe in their ability to perform the given task (lack of self-efficacy). Conversely, one may not believe they have control over one's life (external locus of control), yet believe they have the relevant beliefs to perform the behavior (high self-efficacy).

# Existentialism within behavior change theories: implications

We have outlined that existentialism differs from psychological behavior change theories, theories applied to the self, and specific psychological constructs. Despite these differences, we believe there is an opportunity to integrate this philosophical idea into health psychology. More specifically, we believe that behavior change can be promoted by underpinning salient beliefs, or beliefs commonly targeted within health psychological models, with existential thoughts. We believe that a lack of meaning could negate the influence of salient thoughts, thus resulting in less behavior change. For example, one could believe in the pros of a positive behavior (i.e., PA) or the cons of a negative behavior (i.e., smoking), yet not place individual meaning in the behavior itself. Subsequently, attempts at change may suffer.

It is interesting to note that similar integrative attempts have been previously made, albeit accounting for different global views. Hagger and Chatzisarantis (2009) suggest that the type of motivation within SDT can be used to underpin the beliefs within the TPB, mainly because it is not clear why beliefs are being pursued (Deci & Ryan, 1985). Within the Integrated Behavior Change Model for PA (Hagger & Chatzisarantis, 2014), autonomous motivation is seen as an origin for behavioral, normative, and control beliefs. For example, exercising (the behavior) to achieve the benefits of weight loss (the behavioral belief) may be due to the value of being healthy (autonomous motivation) or to look good in front of others (controlled motivation) (Hagger & Chatzisarantis, 2009). Beliefs underpinned by autonomous motivation are theorized to have a greater impact on behavior.

These salient beliefs have also been discussed in relation to the global approaches used within Cognitive Behavioral Therapy (CBT; Beck, 1964) (Hobbis & Sutton, 2005). CBT suggests behavior change can be achieved by 1) altering automatic thoughts and/or 2) changing core (or global) beliefs. The automatic thoughts can be likened to salient beliefs (Fishbein & Ajzen, 2005), however, the assumptions at the core level (i.e., global beliefs) could be used to foster changes in addition to salient thoughts. Michie (2005, p. 35) notes 'if a person holds the core beliefs of 'I am worthless' and 'things will never get better', he or she is unlikely to put the sustained effort needed into the business of behavior change'. As such, attempts to modify salient beliefs (or thoughts) may be undermined by those core beliefs.

We posit a similar argument with existential thoughts. Similar to how it is not clear why beliefs are being pursued (Deci & Ryan, 1985), rather than approach this from an autonomous or controlled perspective, we believe this could also be approached from an existential perspective. Furthermore, similar to how detrimental core beliefs within CBT may negate the influence of conscious thoughts, we believe conscious thoughts lacking meaning may result in less change. Thus, we suggest integrating meaning in the behavior could enhance the performance of the behavior. We have previously mentioned how BCTs are used to change psychological processes. We will now note how BCTs could be used to include existential beliefs.



# **Existentialism and BCTs**

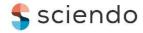
In addition to theoretical similarities, the role played by Sisyphus and the suggestions of Camus and Sartre can lend themselves to the specific BCTs and taxonomies suggested to promote change within health psychology. Such BCTs and their relationship with existentialism will now be discussed with particular reference to issues of motivation and implementation.

As has been indicated here, increasing motivation is one of the most effective ways to encourage behavior change (Hardcastle et al., 2015). One of the most widely used BCTs in doing so is highlighting the 'consequences of engaging in behavior'. Individuals often appraise available and relevant information before deciding whether actions will be undertaken. For example, those believing PA to be enjoyable are more likely to participate than those taking the opinion of it being unenjoyable. Interventions are thus aimed at manipulating the psychological processes pertaining to the perceived expectancies and values of behavior (Ajzen, 1985). With this in mind, behavioral consequences could be framed within messages taking an existential approach. This would entail promoting PA through the personal benefits that can be gained from participation (Gallagher & Updegraff, 2011). A closely related way to establish this message could be through the use of motivational interviewing (Miller & Rollnick, 2002). Defined as a "client–centered, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence" (Miller & Rollnick, 2002, p. 25), motivation interviewing uses various BCTs to promote autonomy and compassion. From discussing the advantages and disadvantages of behavior change (Miller & Rollnick, 2013), this approach may allow the individual to identify personally salient behavioral consequences. More specifically, the existential benefits towards participation may develop from the individual identifying intrinsic, personal motives towards PA.

A closely linked technique is that of 'others' support', which refers to the assistance given by an individual in the performance of behavior. The social support of others has been found to be an important BCT in promoting PA (Yang, Maher, & Conroy, 2015). Taking an existential position, significant others may themselves encourage the individual to immerse themselves in the existential journey. Such encouragement may thus provide the motivation for PA engagement. The influence of others may also exert influence through the 'identification of self as role model'. That is, individuals may be motivated to participate in PA when they are perceived to be an example to others. If an individual is convinced that their existential approach impacts significantly on others' decision to participate, their motivation may significantly increase to continue participation. As well as being a role model, motivation could be influenced through 'providing comparisons with others'. This may involve the identification of known individuals who have undergone this process and then providing suitable comparisons with them. Although an existential position is personal to the individual, specifically asking other individuals to explain how their existential approach has been a facilitator may provide relevant information incentivizing them to do the same.

The result of the practices mentioned above may lead to the development of a suitable behavioral target, specifically using the technique 'goal setting'. The goal setting literature suggests goals made more specific are more likely to be effective than vague goals (Locke & Latham, 1990). Specific to existentialism, a goal could be individually constructed, exempt from predefined characteristics and consist of personal meaning. This specific goal could be manifested intrinsically and made on their own volition.

Although increasing motivation may successfully result in an individual creating a behavioral intention, there are a number of implemental problems that can prevent subsequent action. Indeed, the intention-behavior gap is a problem attributed to motivational models of behavior change (Sniehotta, Scholz, & Schwarzer, 2005). The BCTs offered to overcome these problems, however, may also lend themselves to the existential approach. 'Action and coping plans' are popular techniques for ensuring individuals implement their intentions (Gollwitzer, 1999). Action plans comprise of *what*, *when* and *how* the behavior will take place. Coping plans



first outline potential obstacles and then specify avenues for overcoming them (Sniehotta et al., 2005). Thus, action plans precede coping plans (Schwarzer, 2016). These plans have been found to effectively increase the adoption of PA (e.g., Zhang & Cooke, 2012). Taking the existential approach, the individual can address different problems through the association of personal meaning. For example, one type of plan could include 'if I encounter fatigue, then I will tell myself that I am fine with this'. Here, the individual is generating a solution to a common problem, with this solution informed by their own personal values. Imagining scenarios through 'mental rehearsal' is another BCT often used to overcome setbacks (Giacobbi, Dreisbach, Thurlow, Anand, & Garcia, 2014). Taking the position of existentialism, an individual could be encouraged to prospectively think about how they would feel participating in PA, specifically taking into consideration previously identified reasons. Thus, visualizing oneself undertaking the behavior and accomplishing existential choices may generate the knowledge that PA can and is a worthwhile pursuit, even in the face of adversity. Similarly, individuals could use the technique 'self-talk' to remind themselves of why they are participating. This BCT has been found to positively influence performance (e.g., Hatzigeorgiadis, Galanis, Zourbanos, & Theodorakis, 2014). This could, like imagery, be incorporated using individual, existential meanings.

Participating in PA presents a number of physical and psychological challenges (i.e., fatigue, sweating, struggle). Rather than avoiding such challenges, embracing them may be beneficial from an existential perspective. More specifically, an individual could be encouraged to accept these experiences for what they are, rather than avoiding them (Nesti, 2004). Thus, the struggles with participation would not be perceived as threatening as the individual would have already come to terms with this knowledge. Within the SCT, Bandura (1986) identifies one source of self-efficacy to stem from the appreciation of physiological states. For example, an increased heart rate is a natural response to exertive behavior. The individual thus gains an appreciation of perceived threats and then places meaning within them. A related but diverse avenue to acceptance is the 'reattribution technique' which involves the identification of alternative explanations to behavioral problems. Such re-attribution is often seen within CBT whereby dysfunctional thoughts are associated with maladaptive beliefs. An existential approach could be adopted here by relating alternative explanations to the personal self. As such, the individual could realise the potential that they possess to carry out participation in PA.

A final BCT that could be linked to existentialism is 'self-monitoring' which, as previously mentioned, has been found to be a BCT with particular efficacy (Michie et al., 2009). Comprising of recording and evaluating behavioral progressions, self-monitoring could lend itself to existentialism with the individual monitoring how they felt in relation to their previously identified motives. Thus, rather than undertaking more objective evaluations of performance (i.e., whether weight loss has been attained), an appraisal of how one feels could be an alternative, existential way to encourage the continuous performance of PA.

# Conclusion

Interventions intervening to promote healthy behaviors within health psychology have predominantly used social-cognitive theories. We have suggested that the philosophical position of existentialism could be usefully integrated within such theories. More specifically, we believe that existentialism, with its focus on creating meaning, could be used to supplement the salient conscious processes usually targeted within these models. Attempts have been made previously to integrate beliefs with ideas of the self (i.e., autonomous motivation within TPB constructs), and we believe existentialism could usefully do the same. To facilitate this, we have further suggested that BCTs typically targeting psychological processes could also be used to target existential beliefs and provided examples of how this could be achieved. Through the inclusion of personal meaning, the existential position can underpin the use of several BCTs assumed to be effective in promoting both the uptake and maintenance of healthy behaviors. We hope that such ideas are considered in the future.



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