# We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,900

185,000

200M

Downloads

154
Countries delivered to

Our authors are among the

 $\mathsf{TOP}\:1\%$ 

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index in Web of Science™ Core Collection (BKCI)

Interested in publishing with us? Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.

For more information visit www.intechopen.com



The Importance of Mindfulness in the Achievement of Optimal Functioning: Conceptualization for Research Development

Huy P. Phan, Hui-Wen Wang, Jen-Hwa Shih, Sheng-Ying Shi, Ruey-Yih Lin and Bing H. Ngu

Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/intechopen.79938

#### Abstract

The concept of 'optimal functioning' has emerged as a major line of research development in educational psychology. Optimal functioning, which reflects the paradigm of positive psychology, is concerned with a person's achievement of maximization in his/her functioning, whether it is mental, cognitive, emotional, or social. This inquiry places strong emphasis on importance of flourishing, happiness, and the proactivity of human endeavors. An important question then for consideration, from this testament, is how researchers optimize the achievement of optimal functioning. We have recently made progress by focusing on empirical research development and methodological conceptualizations into the study of optimization. Our conceptualizations, collectively, contend that there are psychological, educational, and psychosocial variables that operate as sources of 'energization', which then stimulate the buoyancy of motivation, personal resolve, effective functioning, strength, and effort expenditure. Energization, in its totality, from our postulation, may then arouse, intensify, and sustain a person's internal state of functioning. Our cross-institutional, crosscultural research collaboration (e.g., Australia, Malaysia, and Taiwan), to date, has considered one notably construct that could serve as a source of internal energization for the achievement of functioning: mindfulness. We strongly believe that the totality of mindfulness, positive in nature, could play a central role in the psychological processes of human agency.

**Keywords:** positive psychology, mindfulness, optimization, optimal functioning, cross-cultural beliefs, Buddhism, nirvana, enlightenment



#### 1. Introduction

Positive psychology [1, 2] is an important paradigm in the field of psychology that focuses on the importance of proactivity in human agency. This theoretical positioning places emphasis on a person's achievement of optimal functioning and his/her state of flourishing. Optimal functioning, in this case, is concerned with the maximization of a person's internal state of functioning, whether it is mental, cognitive, emotional, and/or social.

An important of research inquiry for consideration may entail examination of optimal functioning. What is the best that I can do as a person, both academically and non-academically? How do I achieve my optimal best in a subject matter? These questions are reflective, in nature, and form the basis for personal growth, where appropriate. The best that a person can do (e.g., achieving exceptional wealth), in this case, indicates his/her internal state of optimal functioning—mediocracy, for example, may indicate an internal state of low optimal functioning. Understanding the nature of a person's internal state of optimal functioning and how one reaches this state of exceptionality is the central focus of this chapter.

Our cross-cultural research collaboration, merging ideas, knowledge, and philosophical beliefs from both Western and Eastern contexts, has so far resulted in an innovative conceptualization of the theoretical concept of *mindfulness* [3]. We argue, in this chapter, that personal engagement in mindfulness could actually assist a person to achieve a state of optimal best. This postulation regarding the potential role of mindfulness, we contend, may yield a number of educational significance for educators, school administrators, and industry bodies—for example, the design and creation of an educational program, reflecting the tenets of mindfulness [3], which could then optimize a student's internal state of functioning (e.g., optimal cognitive functioning).

## 2. The importance of optimal functioning

Positive psychology explores the proactivity of human behavior. This theoretical orientation is non-deficit and suggests that the study of achievable human endeavors is a main priority for consideration [1, 4]. Negative and deficit models of human behavior (e.g., behaviorism) tend to focus on maladaptive functioning (e.g., school disengagement: [5]), pessimism, and preventive measures for rectification purposes. This approach to the study of human behavior is outdated, perhaps, as very little is made to understand about human strengths and the facilitation of self-fulfillment of inner needs.

Positive psychology, credited to Seligman, Csíkszentmihályi, Diener, Maslow, and others is a 'branch' of psychology that focuses on inner strengths, resilience, virtues, and personal flourishing. This theoretical orientation places emphasis on the 'positives' and the self-gratification and self-fulfillment of a person's inner needs [1, 2]. Rather than focusing on weaknesses, shortcomings, and preventive measures, positive psychology delves into positive outlooks in life, such as the personal enrichment of positive emotional functioning (e.g., an

extreme sense of happiness), positive social climates, and achievement of optimal functioning [6, 7]. In the context of academia, for example, a secondary school student may project and incline towards positive outlooks in life, and not focus on past and/or current shortcomings and failures. This may consist of personal resolve in the learning of different subject areas for mastery, personal growth, and enjoyment purposes. From a non-educational point of view, likewise, a senior citizen may capitalize on his/her positive feel-good experiences to lead a healthier lifestyle.

We contend that optimal functioning is an important facet of personal development. Optimal functioning varies in accordance with the context at hand, for example, an extreme state of happiness that is sustained (e.g., optimal emotional functioning), exceptional mathematic results (e.g., optimal cognitive functioning), and/or proactive social relationships with others in the community, consequently resulting in the establishment of networks, etc. (e.g., optimal social functioning).

Specific to positive psychology is the tenet that individuals, in general, strive to achieve self-fulfillment and live to their fullest potentials [8]. What is of interest for us, as individuals, is how we achieve an internal state of optimal functioning. This is a pervasive issue that a number of scholars, to date, have made concerted attempts to address (e.g., [9, 10]). In the area of student motivation, a number of researchers have proposed different theoretical orientations that could explain students' motivational beliefs, cognition patterns and learning experiences, for example: personal self-efficacy [11, 12], academic buoyancy [13, 14], optimism [15, 16], and hope [17, 18].

Our own research development has also made theoretical, methodological, and empirical contributions to the study of optimal functioning. In particular, for consideration, clarity, and in-depth understanding, our seminal publication in 2016, titled 'Introducing the concept of Optimal Best: Theoretical and methodological contributions', proposed a framework to explain the concept of optimal achievement best [19]. We revised this initial proposition in 2017 and formally introduced our theoretical contribution of optimal functioning, coined as the Framework of Achievement Bests (e.g., [7, 8]). The Framework of Achievement Bests provides theoretical understanding into the process of optimization, which we argue could account and explain a person's achievement of optimal functioning. Like any other inquiries, our theorization of optimization is ongoing in terms of its development [3]. One notable aspect, arising from the recent Phan et al. [7] publication is a focus on the methodological conceptualization of the process of optimization. In this chapter, we want to delve in detail into a methodological model of optimization for investigation that we have just conceptualized. Some aspects of this innovative conceptualization of optimization have briefly been mentioned in Phan et al [26].

#### 2.1. The process of optimization: an overview

How individuals reach their optimal functioning in life is a question that of interest for many scholars. Existing research, interestingly, has explored other theoretical concepts that also connote the importance of optimal functioning: *personal best goals* [20, 21], *flourishing* [22, 23], *thriving* [24, 25], and *personal striving* [26, 27]. However, despite this development, very little is known about a *process* that could facilitate achievement of experience of flourishing, thriving, etc.

Optimization is process that could serve to facilitate and optimize a person's state of functioning. Researchers have often used terminologies and phrases such as 'optimizing effect', 'Variable A can optimize Variable B...', and 'human optimization' without truly explaining what they actually mean. The notion of optimization, we contend, is not analogous to the concepts of 'enhancement', 'predictive effect', and/or 'causal flow'. Fraillon's [9] theoretical overview of subjective well-being briefly mentioned the concept of optimization, which the author theorized as the difference between a person's *actual best functioning* and his/her *notional best functioning*. This definition, despite its limited scope, provided grounding for the development of our Framework of Achievement Bests [7, 8].

Our theorization of the Framework of Achievement Bests, derived from Phan et al.'s [19] article, postulates the *dichotomy of levels of best practice* by which there are there are different levels of a person's functioning—for example: *realistic achievement best*, defined as a person's actual level of functioning at the present time, and *optimal achievement best*, defined as a person's indication at the present time of the maximization of his/her competence in a subject matter. In the context of academia, for example, realistic achievement best focuses on a student's actual demonstration of knowledge and/or skills (e.g., I can solve 20 easy arithmetic problems and get 90% correct). Optimal achievement best, in contrast, emphasizes a student's mastery competence of his/her learning, which in this case reflects the best of his/her ability (e.g., I know that I can solve more complex arithmetic problems and get 85% correct). Our theorization [7, 8], this case, contends that reaching optimal achievement best from realistic achievement best would require some 'form' of optimization.

Adapting from our recent work [3, 7], **Figure 1** illustrates a methodological conceptualization of the process of optimization that we recently developed. We argue that in order to understand the process of optimization, it is important for us to expand on the tenets of optimal functioning. In this analysis, from our conceptualization, an achievement of optimal functioning requires the fulfillment of three main criteria: (i) that there is a *point of reference*, denoted as

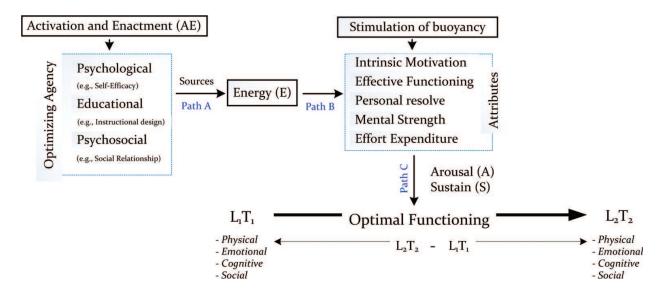


Figure 1. Optimization and levels of best practice. Adapted from Phan & Ngu [8] and Phan et al. [7].

 $L_1T_1$ , for personal benchmarking with the level of optimal best, which is denoted as  $L_2T_2$ , (ii) the requirement of *time precedence* in order for a person to develop and experience an 'increase' in optimal functioning, and (iii) the *activation and enactment* of psychological, educational, and/or psychosocial agencies in order to facilitate, mediate, strengthen, and improve a state of functioning from  $T_1$  to  $T_2$ . Overall then, from this explanation, achievement of optimal functioning is made when we are able to gauge into the difference between  $L_2T_2$  and  $L_1T_1$  (i.e.,  $\Delta L_{21}$ ), where  $L_1$  = realistic achievement best,  $L_2$  = optimal achievement best.

Optimization consequently, from our conceptualization, would assist in the achievement of L<sub>B</sub>T<sub>2</sub> from L<sub>A</sub>T<sub>1</sub>. Differing from previous theorizations (e.g., [22, 28]), we contend that successful accomplishment of  $\Delta L_{21}$  would indicate experience of flourishing. Personal flourishing, in this sense, reflects a person's successful accomplishment of a state of optimal functioning (i.e.,  $L_2T_2$ ). Our revision of the Framework of Achievement Bests [3, 7] theorizes that the operational nature of optimization involves the activation and enactment (AE) of psychological (e.g., hope: [29]), educational (e.g., an instructional design: [30]), and psychosocial (e.g., teacher-student relationship: [31]) agencies that serve as sources of personal energization (E), which then stimulates the buoyancy of intrinsic motivation (i.e., defined as a person's intrinsic motive to persist a course of action—for example, learning Calculus), personal resolve (i.e., defined as a person's internal state of decisiveness and resolute to strive for optimal functioning), effective functioning (i.e., defined as a person's purposive state of organization, structured thoughts, and behavioral patterns and his/her deliberate intent to succeed), mental strength (i.e., defined as a person's mindset that he/she has the capacity to deal with obstacles, stressors, and pressure), and effort expenditure (i.e., a person's conscious attempt to achieve a particular outcome) in order to arouse, intensify, and sustain (AIS) a person's state of functioning. We consider the importance of these five comparable attributes for their positive nature—that is, individually and/or in combination, they encourage and facilitate a person to achieve optimal outcomes.

We argue that the differential influences of psychological, educational, and psychosocial agencies are subject to the contextual situation at hand, as well as the timely opportunity that may arise. For example, the optimization of physical functioning (e.g., a football player's scoring of goals) may benefit more from psychological (e.g., the use of self-efficacy beliefs to convince the football player's resolve) and/or psychosocial (e.g., the provision of an adequate environment for training) agencies, whereas educational agencies (e.g., the teaching of an effective instructional design) would be more appropriate in the optimization of cognitive functioning (e.g., a student's academic performance in mathematics). In a similar vein, we argue that on a daily basis, the provision of opportunities for optimization purposes may vary in accordance with the contextual situation and/or other reasons. What this means then, from our conceptualization, is that at any point in time, not all different types of agencies may be available for usage.

The source of energization from psychological, educational, and psychosocial agencies, we contend, may then stimulate the buoyancy of five distinctive and comparable attributes (e.g., intrinsic motivation). The same argument here is that influences from these five attributes to arouse, intensify, and sustain an internal state of functioning also vary. In other words, as an example, the optimizing impact of a psychosocial agency (e.g., teacher-student relationship) on emotional functioning may only stimulate intrinsic motivation and personal resolve. In a

similar vein, a psychological agency (e.g., personal self-efficacy for academic learning) to optimize cognitive functioning may stimulate intrinsic motivation, mental strength, personal resolve, and effort expenditure. An effective educational agency (e.g., the use of an appropriate instructional design), likewise, may instead stimulate intrinsic motivation, effective functioning, and effort expenditure.

Our theorization of the concept of optimization, expanding on from our original Framework of Achievement Bests, suggests that unlike associative (i.e., r) and predictive (i.e.,  $\beta$ ) effects, the impact of optimization would result in a person experiencing some form of 'energy', which then could enable the achievement of optimal functioning. One interesting facet for consideration is whether and to what extent we could actually 'quantify' the process of optimization. The quantification of optimization, from our point of view, considers the magnitude (or strength) of a person's experience of energization. In our recent work [3, 8], for example, we introduced the concepts of intensity of optimization (i.e., defined as the amount of resources that would be needed to optimize a person's level of functioning) and scope of optimization (i.e., defined as the amount of time and effort that would be needed to optimize a person's level of functioning). The magnitude of optimization, in this case, is postulated to encompass both intensity and scope. A level of optimal functioning that is relatively simple from a current level is likely to require minimal optimization. In contrast, however, a level of optimal functioning that is more complex (e.g.,  $L_1T_1$ : knowing how to solve equations with one unknown, x:  $x + 5^2 = -10 \rightarrow L_2 T_2$ : knowing how to solve quadratic equations with two unknowns, x and y:  $(x + y)^2 = 4$  and -4x + 10y = 20) would require a greater amount of optimization.

With the possible quantification of optimization, we consider a related theoretical concept, which we coin as the *index of optimization*. We propose that the index of optimization, denoted as  $\gamma$ , is intricately associated with the difference between a person's current level of functioning and his/her level of optimal functioning (i.e.,  $\Delta L_{21}$ ). The quantification of the index of optimization, from our proposition, is as follows:

$$\gamma = AE + E + AIS \tag{1}$$

where  $\gamma$  = index of optimization, AE = activation and enactment of psychological, educational, and psychosocial agencies, E = the experience of energization, which consists of the stimulation and buoyancy of motivation, personal resolve, effective functioning, mental strength, and effort expenditure, and AIS = arousal, intensity, and sustainability.

This postulation regarding the index of optimization and, more importantly, the quantification of optimization is innovative, as it connotes that, likewise, it is possible to measure, assess, and quantify a person's level of optimal functioning. The index of optimization, in this case, reflects the totality of AE, E, and AIS, and equates to a person's experience of flourishing—that is,  $\gamma \approx \Delta L_{21}$ . In other words, from our theoretization, a person's energy is likely to assist and result in a level of optimal functioning. At this stage, however, we recognize one notable issue that is unresolved: the calculation of the index of optimization. Despite this uncertainty, we argue that our expanded theorization of optimization is effectual for its explanatory account of a person's state of flourishing. The acquisition of a source of energization, in this case, is of interest for us to discuss in detail. The psychological agency, as we explained [7], may serve as a major source

of a person's experience of energization. Our interest for discussion entails the extent to which mindfulness, as a psychological agency, could energize a person to achieve optimal best.

### 3. Overview of mindfulness

Mindfulness is a psychological process that emphasizes on a person's meditational state. It is defined as "the unfailing master key for knowing the mind and is thus the starting point; the perfect tool for shaping the mind, and is thus the focal point; and the lofty manifestation of the achieved freedom of the mind, and is thus the culminating point" [32]. In other words, as Kabat-Zinn [32] explains, mindfulness is concerned with a person's moment-to-moment, non-judgmental self-awareness, which is cultivated by his/her directed attention towards the present moment, non-reactively and non-judgmentally. An envisage of mindfulness as a meditational practice suggests a state of consciousness and self-awareness that may be strengthened over the course of time [33].

The psychological construct of mindfulness is postulated to closely associate with the positive psychology paradigm [1, 4, 34] for its characteristics and emphasis on positive yields. Central to this theoretical contention is the fact that mindfulness is *meaningful*, and contradicts with the negativities that may exist in life such as pessimism and mindlessness [35]. Mindfulness, in this sense, is a feat of human agency that reflects to a large extent the essence of a person's temperament, personality, and state of mind. Engaging in the meditational practice of mindfulness produce two important yields [36–40], namely:

- i. A person's experience of a *present state* in any social milieu, which may reveal clear focus and personal contentment. Non-judgmental concentration at the present time, in itself, could serve to instill and facilitate an internal state of calmness, ease, and clarity.
- **ii.** The *subsequent outcomes* that may arise from the aftermath experience of mindfulness, including positive emotions (e.g., happiness), weakening in negative emotions (e.g., anxiety), and improvement in personal functioning (e.g., performance in a subject matter).

Engagement in mindfulness practices, in this sense, emphasizes personal experience both the present moment and the future state of functioning. The two aforementioned yields signify and support the use of mindfulness theories [41–43] in educational and non-educational contexts. Educationally, in this case, it has been noted that there are a number of educational programs for usage in the practice of mindfulness (e.g., Master Mind Program: [44], Mindfulness Education: [45]). For example, Schonert-Reichl and Lawlor [45] recently explored the effectiveness of the Mindfulness Education (ME) program, which involves a universal teacher-taught preventive intervention that focuses on "facilitating the development of students' emotional and social competence via a series of lessons in which 'mindful attention awareness' is taught and practiced, and in which students engage in lessons designed to promote optimism and positive affect" (p. 138). The results of the study showed, for example, that adolescents who participated in the ME program improved on their optimistic beliefs.

Meiklejohn et al.'s [33] in-depth review is also interesting, indicating the effectiveness of mindfulness programs for both teachers and students, alike. A number of programs have been developed from different countries to teach and facilitate engagement in mindfulness practices (e.g., *Inner Kids Programs* from the United States for Pre K-8; *Mindfulness in Schools Project* (MiSP) from England for children aged 14–18 years; *Sfat Hakeshev* (The Mindfulness Language) from Israel for children aged 6–13 years). The results arising from implementations of these programs indicate, for example:

- i. For teachers—(i) the cultivation of mindful skills and knowledge in everyday lives, both insider and outside of classroom settings, (ii) improvement in subjective well-being experiences, (iii) improve effectiveness in providing emotional, behavioral, and instructional support to students, (iv) improve engagement and prosocial relationships with students and co-workers, alike, and (v) decrease negative emotions (e.g., anxiety level) and increase motivation towards the profession, in general.
- ii. For students—(i) strengthen students' capacity to self-regulate attention, (ii) facilitate students' capacities to relate to any experience, whether pleasurable, neutral, stressful, or difficult, (iii) decrease negative emotional functioning (e.g., anxiety level) and behavioral problems, (iv) improvement in social skills and academic performance, (v) increase in optimism, subjective happiness, and mindful awareness, and (vi) improvement in emotional regulation, feelings of calmness, relaxation, and self-acceptance.

The above mentioning provides empirical grounding for further rigorous scientific research development into the efficacy of interventions and programs into mindfulness. According to Meiklejohn et al. [33], there are three major reasons as to this research inquiry is needed, namely: (i) validating the *effectiveness* of interventions and programs into mindfulness, (ii) *how* and *why* the intervention works, and (iii) *predictive effects* and under what *conditions* the intervention would be effective. This recommendation from a psychological point of view is valid, and has credence for implementation. Any theoretical orientation in social sciences, for that matter, requires a cogent conceptualization, which is then followed by strong high-quality empirical evidence for efficacy and effectiveness. The authors, for example, recommend the following issues for guidance in the advancement of mindfulness as a distinct theoretical orientation: establish a theory of change for mindfulness-based programs, expanding the evidence-based for mindfulness-based programs, development and validation of appropriate outcome measures, assess socially valid outcome measures, and address school-based implementation barriers.

A persuasive argument could lend itself in terms of providing a conceptualization that focuses on the relationships between mindfulness and levels of personal functioning. This consideration is insightful, aligning to Meiklejohn et al.'s [33] contention for further research development into the operational nature (i.e., predictiveness) of this theoretical construct. The argument here, in this analysis, is that mindfulness could play a central role in the achievement of optimal functioning. Specifically, as discussed in the subsequent sections of this article, it is argued that meditational practice of mindfulness could result in the activation of a series of sub-processes, which may then assist in the optimization of achievement of optimal functioning.

## 4. Mindfulness from an Eastern perspective

The preceding section has described the concept of mindfulness. However, we argue that existing research from Western scholars, placing emphasis on the psychological nature of mindfulness alone is somewhat confined. We make this argument consequently as a result of our own research development into this matter, which takes into account the importance of *Taiwanese philosophical beliefs, meditation practices, professional and personal experiences,* and *Buddhist wisdom and knowledge*. Our professional development, especially for authors 3, 4, 5, and 6 includes in-depth knowledge and teaching of Asian philosophies to postgraduate students, extensive research undertakings in the area of mindfulness, teaching meditation to undergraduate students, and daily practice of rituals pertaining Buddhism. Our theoretical positioning of mindfulness is more inclusive and proposes a holistic model for consideration.

#### 4.1. A proposed model of mindfulness

A model of mindfulness that we want to consider is shown in **Figure 2**. This proposed model, which we recently described [3], reflects an integration of both Western and Eastern ideas, knowledge, and philosophical beliefs. Our conceptualization posits mindfulness as a hierarchical and multifaceted structure that encompasses three major components: *psychological component*, *philosophical component*, and *spiritual component*. We contend that this conceptualization of mindfulness is more inclusive, taking into account Eastern ideas, understanding, and philosophical beliefs and the premise of *Buddhism*. Furthermore, from our proposition, each major component of mindfulness espouses specific attributes—(i) the psychological component espouses the

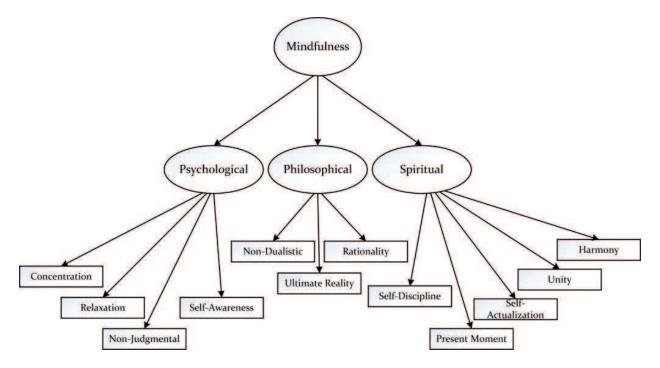


Figure 2. Conceptualization of mindfulness.

attributes of *concentration*, *relaxation*, *non-judgment*, and *self-awareness*, (ii) the philosophical component espouses the attributes of *non-dualism*, *ultimate reality*, and *rationality*, and (iii) the spiritual component espouses the attributes of *self-discipline*, *present moment*, *self-actualization*, *unity*, and *harmony*. These attributes have been discussed in detail in our recent work [3], and will not be described here.

Our proposition of mindfulness is holistic and recognizes the importance of both Western (i.e., the psychological component) and Eastern (i.e., the philosophical component and the spiritual component) ideas and theoretical contributions. From the literature, very little is known about the two non-psychological components that we have proposed. What is unique here, from our conceptualization, is that we consider Buddhism to underpin the nature of the philosophical and the spiritual component of mindfulness. What does this actually mean then, in its totality? Mindfulness, for us as Taiwanese scholars, is more than just a person's psychological state of ease. It is somewhat limited to infer that mindfulness is simply a reflection of a person's purposive concentration to ensure that no judgment is made on any aspect of life at the present time. In other words, we argue that personal experience of mindfulness may serve to amplify beyond the actual psychological state of a person's mindset.

When a person experiences a state of mindfulness, from our conceptualization, he/she seeks 'nearness' to Buddha. Hence, in the teaching of meditation practice, we often ask students to 'visualize' the image of Buddha as a focal point of concentration. In other words, one major difficulty that many novices face is their inability to concentrate when practicing meditation. Non-judgmental concentration in this sense, according to many Buddhist nuns and monks, is a challenging feat to achieve. Nearness to Buddha or perhaps, Buddhism itself, is to reach nirvana (i.e., enlightenment). According to Buddhist beliefs, a state of enlightenment relates to a person's experience of contentment, prosperity, happiness, peace, and harmony [46]. Mindfulness through meditation, in this analysis, is more than just a state of concentration and self-awareness; when we practice meditation in order to experience mindfulness, we seek to explore and understand the meaning of life in a non-materialistic sense. An important aspect of Buddhism is for a person to live a life that is full of richness. Life is not simply concerned with having materialistic wealth. An enriched life for any person for that matter is to not have attachment, other than to have Buddhist faith.

Our proposed model of mindfulness is significant for its underpinning of Buddhism, emphasizing the importance of Eastern philosophical beliefs and the nature of spirituality. We argue our conceptualization touches on elements that do not necessarily abide by the natural laws of sciences. This argument posits that understanding of mindfulness in its truest sense requires personal experience that may transcend beyond the realms of reality and the physical world. For example, unlike academic performance, social relationships, and/or achieving economic growth, which are also measurable, mindfulness from our point of view is somewhat different—it is not an easily achievable and/or explanatory feat. True, meaningful understanding of mindfulness requires *contemplation*, *reflection*, and *true faith in Buddhism*. When one successfully reaches a state of mindfulness, there is then 'evidence' of inner satisfaction. Mindfulness, in this case, indicates a person's peaceful 'Buddha-like' state of mind, which may detach itself from materialistic things, financial wealth, and worldly success. Moreover, from our point of

view, a state of mindfulness would enable a person to live a life that is non-judgmental, non-subjective, and non-biased. In essence, a positive effect of mindfulness would consist of a person's self-awareness of free will to do things without any negative emotion, and/or to care what others may think.

Existing research has used quantitative methods to seek clarity into the definition, meaning, and structure of mindfulness. For example, using non-experimental designs, a number of researchers have focused on validating the factorial structure of mindfulness (e.g., [47–49]). Evidence from Likert-scale and open-ended surveys, in this case, has led to inconsistent perspectives of the factorial structure of mindfulness [3]. We argue that our proposed conceptualization of mindfulness, especially with its emphasis on the philosophical and spiritual component and their respective attributes is relatively difficult to assess, measure, and evaluate. Referring to the preceding sections, the personal achievement of nirvana is not an easily feat to 'quantify'. Indeed, we recognize the complexity of our proposed model, and contend that other alternative, non-conventional methods may be needed. In a similar vein, we believe that the potential optimizing role of mindfulness in the achievement of optimal functioning is somewhat complex to validate. One notable problem, of course, relates to the issue that we previously outlined, namely, a lack of clarity into the operational nature of optimization. In this section of the chapter, we discuss a methodological conceptualization that could integrate our proposed model of mindfulness within the framework of optimization.

## 5. Mindfulness and optimal functioning

Optimization, we contend, is an underlying process that could assist in the achievement of optimal functioning. Our recent conceptualization of optimization, derived from previous research [7–9], emphasizes the potential optimizing influences of different psychological, educational, and psychosocial agencies. An important question then is whether and/or to what extent mindfulness, as a multifaceted concept, could operate as a psychological agency and hence, a source of energization in the process of optimization. As a research inquiry into this potentiality, we focus on a methodological conceptualization that we have developed, as shown in **Figure 3**. This depiction is innovative for its proposition into the optimizing effect of mindfulness.

According to **Figure 3** and taking into consideration our proposed model of mindfulness, the practice of meditation would result in the achievement of nirvana. Nirvana enables a person to experience contentment (i.e., realization that one is fine with life as it is), prosperity (i.e., recognition that one is prosperous in terms of well-being—that is, life is good), a sense of happiness (i.e., one's experience of internal happiness), peace and harmony (i.e., one's understanding that life is harmonious with nature and the contextual surroundings), which then operate as energy sources. Our pedagogical practice of meditation involves a number of procedural steps, such as the recitation of specific Buddhist scriptures and chanting (e.g., *Amitabha*). Visualizing the image of Buddha as we begin would assist with concentration, relaxation, and the experience of 'nothingness'. Unlike Western perspectives perhaps, mindfulness from an Eastern point of view is concerned with a state of ease and one's ability to be 'Buddha-like' and to reach enlightenment.

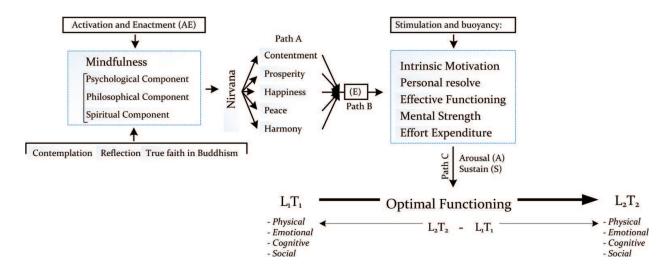


Figure 3. The relationship between mindfulness and optimal functioning.

From our postulation, a state of nirvana would serve as a source of energization—in this sense, we contend that mindfulness would vitalize a person to recognize that there is no greater cause than for him/her to attain a Buddha-like stature. What does this mean for the process of optimization? A Buddha-like stature would, in our consideration:

- i. Enable a person to feel *intrinsically motivated* with life itself at the present time, regardless of any obstacles and/or difficulties that may exist. This intrinsic motivation emphasizes the importance of a person's inclination towards individual growth and non-materialistic matters. For example, in a non-academic sense, a person may feel intrinsically motivated to assist others to be at peace, content, and be happy with themselves. Academically, in contrast, intrinsic motivation may reflect a student's inner desire to seek new knowledge for interest and intellectual curiosity purposes.
- ii. Instill a strong sense of *decisiveness and determination* to persist in a course of action, academically and/or non-academically. This personal resolve reflects an autonomous and determined mindset, such as a person's decision to encounter and resolve a problem despite his/her uncertainty. Academically, for example, a sense of decisiveness could compel a student to choose an appropriate course of action (e.g., seeking help from someone capable) for his/her learning purposes. Non-academically, likewise, a person may act on his/her determination to make sound decisions that could impact on others.
- **iii.** Ensure there is consideration of *organization, structured thinking,* and *efficiency* in one's course of action. There is self-awareness of the implication of wasted time and effort, and the weighing of resources that are available. From mindfulness, one is able to accomplish a task or a set of tasks with clear deliberation. Non-academically, for example, a person may seek out pathways to expeditiously complete a task at work, despite numerous disruptions. Academically, likewise, a student may choose an appropriate cognitive strategy to learn Calculus in order to minimize his/her time wasting.
- **iv.** Instill *high-energized mental strength* to enable a person to face difficulties and obstacles with a sense of resolute and positivity. Consequently as a result of mindfulness, one is

able to experience a mindset that is full of clarity, clearness, and unhindered thoughts. Mental strength, we contend, may overcome feelings of pessimism, indecisiveness, and uncertainty. Non-academically, for example, mental strength may assist a person to feel confident and efficacious to combat a health issue. Academically, in contrast, mental strength may help a student to confront his/her learning difficulties with determination, and to persist despite this hardship.

v. Enable a person to focus on the *expenditure of time and effort* in order to accomplish a given task at the present time. Mindfulness, from our point of view, may serve to negate stagnation, inaction, and procrastination. Consequently, as a result of mindfulness, a person may feel more motivated and compelled to spend time on practicing, revising, and consolidation. Academically, for example, via means of mindfulness a student may come to realize that effort is intricately linked to personal success. It is through effort likewise, as the student comes to realize, that ensures a lay person is able to achieve a Buddha-like stature.

What is important, from the above, is that mindfulness is a source of energy that is positive, in nature. From our theorization, we argue that a state of mindfulness, which results in a perceived sense of enlightenment, is in accord with the paradigm of positive psychology [1, 2]. Mindfulness, for us, consequently, is concerned with the *achievement of happiness and the true meaning of life*. This experience of energization, as we explained, may stimulate the buoyancy of intrinsic motivation, personal decisiveness and determination, mental strength, effort expenditure, and one's self-awareness of efficiency. These attributes, in their totality, may then arouse, intensify, and/or sustain a person's internal state of functioning—whether it is physical, emotional, cognitive, or social.

In terms of functioning, consider the importance of cognitive functioning. In the context of academia, cognitive functioning may consist of academic performance and/or the seeking of mastery competence in a subject matter [7]. Achieving an exceptional result in Calculus, for example, may indicate optimal cognitive functioning in mathematics. It is pertinent then that we consider, conceptually and practically, how we could optimize a student's academic learning experiences, which may be subject to both performance and mastery-based criteria. The totality of mindfulness, according to our conceptualization, is concerned with a person's achievement of nirvana. This experience, from our own personal recalls of understanding, knowledge, and experiences over the years, reflects the true meaning of life—to detach oneself and feel unpressured from the competitive and materialistic world. We argue that a mindset void of everything in life, except the fulfillment of contentment, prosperity, happiness, peace and harmony would bring forth a state of serenity and tranquility. Here, at this personal state, a student does not feel pressured and appreciate everything there is to know, regardless of his/her existing level of understanding. What this would mean for a student then, is that academic learning is a personal journey that is full of enrichments and no ends. Acquiring knowledge, in this regard, is autonomous, personal, and free from extraneous influences. Failures and successes, in this case, are irrelevant as the true meaning of learning is to experience life itself. Learning Calculus or any other academic subject matters, in this instance, is part and parcel of being a person where there is no specific 'timezone'. Importantly, focusing on the philosophical and/or religious beliefs of Buddhism, one realizes that learning is an endless journey that has no destiny to achieve.

Hence, from the preceding section, mindfulness could serve to optimize a person's cognitive growth. At the same time, of course, we contend that as a psychological agency, mindfulness could also optimize physical (e.g., a healthy lifestyle), emotional (e.g., happiness), and social (e.g., social relationship and friendship) functioning. Considering that ultimately mindfulness is concerned with enlightenment, we argue that the positive psychological, philosophical, and spiritual nature of a person's mindset would help:

- i. Instill confidence and efficacy for one to live life to the fullest, regardless of existing and/ or potential health issues. Life, at the present moment, is concerned with personal enjoyment and appreciation of the fact that one is living, and to recognize there is a *karmic cycle* (i.e., *samsāra*).
- **ii.** A person to learn to place emphasis on the notion of 'nothing'—that is, nothing in the world matters other than the achievement of *continuous inner happiness* by fulfilling one's own desire to help others reach a state of nirvana. Negative emotional functioning has no existence, as all positive attributes of Buddhism take precedence.
- **iii.** A person to willingly relate to others within the contextual environment. It is poignant for a person to view the world with a sense of unity. The world, from the view of Buddhism, is a holistic entity with no distinction between us, animals, and nature, in general.

## 6. Conclusion and research development for consideration

Optimal functioning is an important facet of the totality of human agency. This theoretical concept of optimal functioning reflects the tenets of the paradigm of positive psychology [1, 2]. The study of optimal functioning has, to date, been substantive with research undertakings in the fields of Education, Psychology, and Health Sciences. Our research development, international in scope, has been substantial, especially in terms of our theoretical, methodological, and empirical contributions [3, 26]. One major contribution, which commenced in 2015, consisted of our development of a theoretical model that we argued could explain the achievement of optimal functioning. The Framework of Achievement Bests [7, 8], in this case, emphasizes the importance of optimization, an underlying process that may explain and facilitate the experience of flourishing. We advance this theorization by proposing a revised conceptualization, by which we detail the intricate operational functioning of the process of optimization.

Another important contribution, arising from our recent collaboration, consists of the proposition and development of a hierarchical, multifaceted structure of mindfulness, which places emphasis on the positive psychological, philosophical, and spiritual nature of a person's mindset. Mindfulness is more than just concentration, self-awareness, and/or a relaxed, non-judgmental state. For us, mindfulness is closely associated with Buddhism and more importantly, the achievement of a Buddha-like stature. When experience a state of mindfulness, via means of meditation, we ultimately achieve the experience of enlightenment. Indeed, we argue that our proposed model of mindfulness is innovative for its inclusiveness of both Western and Eastern ideas, knowledge, and philosophical viewpoints. This development of an alternative

model has also led us to consider mindfulness, in its totality, as a psychological agency that could operate to optimize a person's state of functioning.

We recognize that there are some major complexities, which pose difficulties in the assessment and measurement of the conceptualization that is depicted in Figure 3. Social sciences research would require rigorous methodological designs that enable, for example, the quantification of variables and statistical inferences of their relationships [50]. From a Western perspective then, as we previously described, researchers have focused on the factorial structures of mindfulness (e.g., [47, 48]). In this analysis, researchers have varied in their conceptualizations and the subsequent results found from factor analyses - from a one-factor model [51] through to a sixfactor model [52]. The issue, however, is that our proposed model of mindfulness is nonconventional, and takes into account Buddhism as an underlying focus of inquiry. How do we measure and assess Buddhism in its entirety? More importantly, referring to our proposition, how do we measure and assess the extent to which one has reached a state of enlightenment? We contend that the notion of spirituality, which is one main component of mindfulness, is extremely difficult to gauge at and/or to measure and assess. Delving into the nature of a person's contemplation, reflection, and his/her true faith in Buddhism, we contend, is not an easy task to determine. A traditional methodological approach that consists of the use of a Likert-scale measure is somewhat problematic and/or limited, as a subject's response may not necessarily indicate his/her 'inner' feeling and experience of enlightenment.

From our theoretical positioning, enlightenment upon successful meditation would enable a person to experience a Buddha-like stature that, in this sense, reflects contentment, prosperity, happiness, peace and harmony. Some Buddhist nuns and monks, likewise, would argue that in-depth practice of meditation would also enable some to experience *transcendence*—the perceived ability of a person to exist in another realm that is outside the existing time-space realm. Hence, in a similar vein, we gather that it is non-feasible and non-viable to consider the use of the traditional methodological approaches. In this analysis, it would be more enriching and insightful if we could develop non-traditional methodological means to seek understanding into the nature of our proposed model of mindfulness. As practicing Buddhists, for example, Authors 3, 4, 5, and 6 of this chapter have considered the potentiality of methodological designs that the natural laws of physics may not be able to explain. How this is possible is beyond the scope of our understanding at the present time.

In a similar vein, we recognize the complexity of mindfulness as a psychological agency of the process of optimization. This conceptualization, indeed, is complex and difficult to validate, especially when we consider the limitations of traditional quantitative methods. Notwithstanding the obstacles that we have discussed, over the past couple of years we have explored an interesting line of inquiry, namely, the proposition and development of 'methodological conceptualization' that could address a particular area of research. This research-based approach is innovative as emphasis is placed on a researcher's synthesis of existing studies, in-depth knowledge, and strongly rationalized postulation. The main focus of this discourse is to initiate social dialogs, and to encourage researchers to make theoretical, methodological, and/or empirical contributions to the conceptualized inquiry. A proposition, we contend from our research-based discourse, may be accepted, advanced, and/or revised. Other researchers, for example, may offer

their interpretations, viewpoints, and alternatives to a postulation that we propose. Hence, from this personal contention, we argue that our proposed theoretical-conceptual model may have plausible credence, despite its complexity. In particular, aside from mindfulness, we recap and highlight the following inquiries for researchers to explore the following:

- i. Validating the quantification of the process of optimization, especially the proposition regarding the index of optimization ( $\gamma$ ). It would be insightful to consider the operational nature and measures of Path A, Path B, and Path C.
- **ii.** Considering the measure of the proposed concept of energization, which may apply and have consistency across different types of functioning—for example: physical functioning *versus* cognitive functioning.
- iii. The derivative and calculation of  $\gamma$ , which we equate it as the sum of AE, E, and AIS. However, despite this proposition of  $\gamma$ , we are uncertain of its standardization—that is, from a quantitative point of view, does a numerical value of ≈8 for  $\gamma$  for optimal physical functioning equate to that of optimal emotional functioning?

## Acknowledgements

This chapter would not have been possible without the assistance of our friends, colleagues, and collaborators from Australia, Malaysia, and Taiwan. We are indebted to a number of colleagues in Taiwan who took time out to generously share with us their knowledge of Buddhism and the importance of mindfulness. This manuscript was conceptualized and prepared in late 2016, when the first author was on sabbatical—hence, a special gratitude to the University of New England for granting this study leave. Thank you, in particular, to Huafan University, Taiwan, and Taipei Medical University, Taiwan, for hosting the first author when he was on sabbatical.

### **Author details**

Huy P. Phan<sup>1</sup>\*, Hui-Wen Wang<sup>2</sup>, Jen-Hwa Shih<sup>2</sup>, Sheng-Ying Shi<sup>2</sup>, Ruey-Yih Lin<sup>2</sup> and Bing H. Ngu<sup>1</sup>

- \*Address all correspondence to: hphan2@une.edu.au
- 1 University of New England, Armidale, Australia
- 2 Huafan University, New Taipei City, Taiwan

#### References

[1] Seligman M, Csíkszentmihályi M. Positive psychology. American Psychologist. 2000;55:5-14

- [2] Seligman M. Flourish: Positive psychology and positive interventions. In: The Tanner Lectures on Human Values. The University of Michigan; 2010
- [3] Phan HP, Ngu BH. Teaching, Learning and Psychology in Education. South Melbourne, Victoria: Oxford University Press; 2018
- [4] Seligman M. Authentic Happiness. New York: Free Press; 2002
- [5] Liem AD, Lau S, Nie Y. The role of self-efficacy, task value, and achievement goals in predicting learning strategies, task disengagement, peer relationship, and achievement outcome. Contemporary Educational Psychology. 2008;33(4):486-512
- [6] Lyubomirsky S. The how to Happiness. London: Sphere; 2007
- [7] Phan HP, Ngu BH, Yeung AS. Achieving optimal best: Instructional efficiency and the use of cognitive load theory in mathematical problem solving. Educational Psychology Review. 2017;29(4):667-692
- [8] Phan HP, Ngu BH. Positive psychology: The use of the framework of achievement bests to facilitate personal flourishing. In: Boas AAV, editor. Well-Being and Quality of Life. Rijeka, Croatia: Intech: Open Science | Open Minds; 2017. pp. 19-33
- [9] Fraillon J. Measuring Student Well-Being in the Context of Australian Schooling: Discussion Paper. Carlton South, Victoria: The Australian Council for Research; 2004
- [10] Csíkszentmihályi M. Flow: The Psychology of Optimal Experience. New York: Harper Perennial; 1990
- [11] Bandura A. Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review. 1977;84(2):191-215
- [12] Bandura A. Self-Efficacy: The Exercise of Control. New York: W. H. Freeman & Co; 1997
- [13] Martin AJ, Marsh HW. Academic buoyancy: Towards an understanding of students' everyday academic resilience. Journal of School Psychology. 2008;46(1):53-83
- [14] Martin AJ et al. Academic buoyancy and psychological risk: Exploring reciprocal relationships. Learning and Individual Differences. 2013;27:128-133
- [15] Scheier MF, Carver CS. Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. Health Psychology. 1985;4:219-247
- [16] Carver CS, Scheier MF. Optimism, pessimism, and self-regulation. In: Chang EC, editor. Optimism and Pessimism: Implications of Theory, Research, and Practice. Washington, DC: American Psychological Association; 2000. pp. 31-51
- [17] Snyder CR et al. The will and the ways: Development and validation of an individual-differences measure of hope. Journal of Personality and Social Psychology. 1991;**60**:570-585
- [18] Snyder CR et al. Hope and academic success in college. Journal of Educational Psychology. 2002;94(4):820-826

- [19] Phan HP, Ngu BH, Williams A. Introducing the concept of optimal best: Theoretical and methodological contributions. Education. 2016;136(3):312-322
- [20] Liem GAD et al. Personal best goals and academic and social functioning: A longitudinal perspective. Learning and Instruction. 2012;**22**:222-230
- [21] Martin AJ. Personal best (PB) approaches to academic development: Implications for motivation and assessment. Educational Practice and Theory. 2011;33(1):93-99
- [22] Diener E et al. New measures of well-being. In: Diener E, editor. Assessing Well-Being: The Collected Works of Ed Diener. Netherlands: Springer Science+Business Media B.V.; 2009. pp. 247-266
- [23] Diener E et al. New well-being measures: Short scales to assess flourishing and positive and negative feelings. Social Indicators Research. 2010;97:143-156
- [24] Su R, Tay L, Diener E. The development and validation of the comprehensive inventory of thriving (CIT) and the brief inventory of thriving (BIT). Applied Psychology. Health and Well-Being. 2014;6(3):251-279
- [25] Wiese CW et al. Measuring thriving across nations: Examining the measurement equivalence of the comprehensive inventory of thriving (CIT) and the brief inventory of thriving (BIT). Applied Psychology. Health and Well-Being. 2018;10(1):127-148
- [26] Phan HP et al. Introducing the theoretical concept of 'profiling': A cross-cultural perspective. In: Exploring Learning Experiences from around the World. New York, NY: Nova Science; 2018
- [27] Phan HP, Ngu BH. Validating personal well-being experiences: A quantitative approach. Education. 2015;**136**(1):34-52
- [28] Huppert FA, So TT. Flourishing across Europe: Application of a new conceptual framework for defining well-being. Social Indicators Research. 2013;110(3):837-861
- [29] Snyder CR. Hope theory: Rainbows in the mind. Psychological Inquiry. 2002;13:249-275
- [30] Ngu BH et al. Reducing intrinsic cognitive load in percentage change problems: The equation approach. Learning and Individual Differences. 2016;51:81-90
- [31] Roorda DL et al. The influence of affective teacher-student relationships on students' school engagement and achievement: A meta-analytic approach. Review of Educational Research. 2011;81(4):49-529
- [32] Kabat-Zinn J. Mindfulness. Mindfulness. 2015;6:1481-1483
- [33] Meiklejohn J et al. Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. Mindfulness. 2012;3:291-397
- [34] Seligman M. Flourish. North Sydney, NSW: Random House Australia; 2011
- [35] Sherretz CE. Mindfulness in education: Case studies of mindful teachers and their teaching practices. Journal of Thought. 2011;(104):79-96

- [36] Keng S-L, Smoski MJ, Robins CJ. Effects of mindfulness on psychological health: A review of empirical studies. Clinical Psychology Review. 2011;31:1041-1056
- [37] Chiesa A, Calati R, Serretti A. Does mindfulness training improve cognitive abilities? A systematic review of neuropsychological findings. Clinical Psychology Review. 2011;31: 449-464
- [38] Bowlin SL, Baer RA. Relationships between mindfulness, self-control, and psychological functioning. Personality and Individual Differences. 2012;52:411-415
- [39] Treanor M. The potential impact of mindfulness on exposure and extinction learning in anxiety disorders. Clinical Psychology Review. 2011;31:617-625
- [40] Hjeltnes A et al. Facing the fear of failure: An explorative qualitative study of client experiences in a mindfulness-based stress reduction program for university students with academic evaluation anxiety. Qualitative Studies on Health and Well-Being. 2015;10
- [41] Maloney JE et al. A mindfulness-based social and emotional learning curriculum for school-aged children: The MindUp program. In: Schonert-Reichl KA, Roeser RW, editors. Handbook of Mindfulness in Education. New York: Springer; 2016. pp. 313-334
- [42] Soloway G. Preparing teacher candidates for the present: Investigating the value of mindfulness-training in teacher education. In: Schonert-Reichl KA, Roeser RW, editors. Handbook of Mindfulness in Education. New York: Springer; 2016. pp. 191-205
- [43] Broderick PC, Metz SM. Working on the insider: Mindfulness for adolescents. In: Schonert-Reichl KA, Roeser RW, editors. Handbook of Mindfulness in Education. New York: Springer; 2016. pp. 355-382
- [44] Parker AE, Kupersmidt JB. Two universal mindfulness education programs for elementary and middle-school students: Master mind and moment. In: Schonert-Reichl KA, Roeser RW, editors. Handbook of Mindfulness in Education. New York: Springer; 2016. pp. 335-354
- [45] Schonert-Reichl KA, Lawlor MS. The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence. Mindfulness. 2010;1:137-151
- [46] Yen MS. The dharma drum lineage of Chan Buddhism: Inheriting the past and inspiring the future. In: The Sheng Yen Education Foundation. Taipei City, Taiwan; 2010
- [47] Baer RA et al. Construct validity of the five facet mindfulness questionnaire in meditating and nonmeditating samples. Assessment. 2008;**15**(3):329-342
- [48] Walach H et al. Measuing mindfulness-the Freiburg mindfulness inventory (FMI). Personality and Individual Differences. 2006;40:1543-1555
- [49] Lau MA et al. The Toronto mindfulness scale: Development and validation. Journal of Clinical Psychology. 2006;62(12):1445-1467
- [50] Babbie E. The Basics of Social Research. 6th ed. Belmont, CA: Thomson; 2014

- [51] Chadwick P et al. Responding mindfully to unpleasant thoughts and images: Reliability and validity of the Southampton mindfulness questionnaire (SMQ). British Journal of Clinical Psychology. 2008;47:451-455
- [52] Neff KD. The development and validation of a scale to measure self-compassion. Self and Identity. 2003;2:223-250



