

How Behavioral Change Wheel Strength Self-Control in Health Behaviors?

Saeed Hameed Aldulaimi^{1*}, Marwan Mohamed Abdeldayem²,

*¹ College of Administrative Sciences, Applied Science University (ASU), Kingdom of Bahrain.
sskw20@yahoo.com, Saeed.aldulaimi@asu.edu.bh

² College of Administrative Sciences, Applied Science University (ASU), Kingdom of Bahrain.
Marwan.abdeldayem@asu.edu.bh

Abstract

The purpose of this study is to develop a planned intervention in the health care sector in Bahrain to improve the self-control of healthcare employees by using the Behavioral Change Wheel (BCW) anew method for characterizing and designing behavior change. Hence, the study applies a longitudinal methodology to the healthcare sector in the Kingdom of Bahrain for a sample of 64 participants from November 2019 to January 2020. The procedures of this planned change task occupy three stages, based on Kurt Lewin change field theory: Stage 1 (pre-assessment of employees' self-control using the Brief Self Control Scale (BSCS) questionnaire); Stage 2: planned intervention employing the BCW as a new method of change); and Stage 3 (post assessment by repeating the self-control measurement, and comparing the new results with the previous ones). The findings reveal that the 13 items of the Brief Self-Control Scale (BSCS) provided different results over the three stages of the study. In Stage 1 (pre-assessment) the level of self-control level was low, but had improved in stage 3 (post-assessment). This is original research that adds to the body of knowledge by developing and validating a new model in changing human behavior, i.e. the change behavior stages (CBS) model. Practically, this study is the only one of its kind to apply the Brief Self Control Scale (BSCS) and the BCW in the health sector. The BCW has been also confirmed as a "valid" and "reliable" instrument that can be used by future researchers to improve human behavior in organizations.

Keywords: Behavior Change Model; Self-Control; Healthcare; Kingdom of Bahrain.

Background

It is widely agreed that technological advances have accelerated life and put people under a sense of pressure from the sources of communication surround them. In the eastern regions of the world, this seems more obvious from the increased tensions and lack of ability to face and resist pressure by developing the kind of self-control with which professionals maintain positive behavior. Patience and self-control are the keys to dealing successfully with the above sources of pressure. Patience is a way of owning oneself instead of letting other things control one. The power of patience is that it gives people the power to treat pressures professionally and let the mind control the physical and psychological parts of the self. The words 'patience' and 'self-

control may be used interchangeably and they conduce to making human decisions more logical and reasonable.

It may, however, be extremely difficult to make and establish changes in areas related to temper control and behavior. Such changes often require a more intense form of stimulation and training, for instance, behavior change programs. In Social Cognitive Theory, a person is not like a machine, responding automatically to a specific input. People can symbolize, self-regulate, and self-reflect (Bandura, 1997). Thus, employers must bear in mind that, in order to instill long-term changes in behavior, programs must include effective support, positive incentives, and continuous follow-up of the individuals involved in these programs. As part of behavioral change programs, staff should also be taught how to persist in this new healthy behavior. For many, this new behavior will become a new healthy habit. Support from co-workers, family and friends can also be essential for the employees' success.

Behavior change programs, as they are known, are an essential component of employees' well-being at work. In this case, the employees make noticeable and lasting changes to the behaviors that affect their inspiration and motivation in the workplace. As Kotter and Cohen (2012) observed, in most successful change efforts aimed at meeting shared goals, leaders focus on connecting with people's emotions because this sparks behavioral change and the desired actions. Employees at the time of change must be presented with evidence that inspires them to perhaps look at the problem and gives them hope for a solution, or even to reflect deeply on their current habits; whatever it is, it is something that moves them on the emotional level. It is argued below that will-power is also essential to a certain form of self-control; that will-power is essential not only to what Holton calls 'strength of will', but also to a certain form of self-control.

Control of human behavior, feelings and reactions determines one's success or failure in all aspects of life. IQ alone is no longer the measure for success; It accounts for only 20% of success, and the rest is made up of emotional and social intelligence and luck (Goleman, 1995). Ethics also can help in the search for self-discipline. The latter lets people believe in their ability to control themselves and gives them self-confidence that they can achieve what they want and what they believe in, and this gives them the power to control the current moment. By self-monitoring they learn to react to their own state, with the aim of making a change. One writer maintained that "being under high levels of stress means that our bodies' energy is used up in acting instinctively and making decisions based on short-term outcomes, therefore, people need to increase the capacity for pressure by learning how to manage stress" (McGonigal, 2016). In this sense, it is the employees who are motivated to in achieving the goals of the program who are the more likely to succeed, because they have most desire to make an effort. Studies have confirmed that self-affirmation can give people more self-control as well as improving their attention, focus, stress management, and self-awareness. According to one writer, emotional intelligence consists of five components: knowing our emotions (self-awareness), managing them, motivating ourselves, recognizing emotions in others (empathy), and handling

relationships (Goleman, 1995). Another suggests that self-control can even teach us quickly to identify personal issues arising from experience; pinpoint personal intentions; empathize with others in their experience; recognize their own values and beliefs; link this experience with previous experiences; create new options for future behavior; and look at ways to improve working with patients, families, and staff in order to meet patients' needs (McGonigal, 2016).

In general, self-control can ensure that individuals have the energy to work even when life feels overwhelming. In fact, if healthcare employees do not take good care of patients it may lead to managerial and technical problems, as well as damaging health. People come to hospital only in exceptional situations and need compassionate behavior from hospital staff, but this requires the wellbeing of the employees and their readiness to absorb the patient's anxiety. The rest of this paper is organized as follows: the conceptual framework is presented in section (2). Section (3) introduces the methodology and design of the study. Discussion and results of statistical analysis are presented in section (4), while the conclusions may be found in section (5).

This study stands on a plethora of theories and a change management model that was found valid for changing human behavior. The Transtheoretical Model (Prochaska and DiClemente, 1983) provides an understanding of individuals' behavioral changes and describes how behavioral changes move dynamically through five different stages. The TTM has been widely used to describe and understand exercise behavior, such as the adoption and maintenance of physical activity (PA) (Han et al 2017). The four core constructs of TTM are the stages of change, self-efficacy, decisional balance, processes of change, and levels of change. The TTM holds that as they move through the later stages of positive behavior change, people begin to perceive more benefits than disadvantages from adopting it (Han et al 2017). This view is also supported by Prochaska and Velicer (1997), who has stated that in the earlier pre-contemplation stage of change the cons outweigh the pros. In his study, the pros and cons in decisional balance construct refer to the benefits from being encouraged to exercise and the barriers to doing so.

Moreover, the theory of planned behavior (Ajzen, 1985, 1991). was developed from the theory of reasoned action, and is more applicable when the probability of success and actual control over performance of a behavior are suboptimal. The theory was intended to explain all behaviors over which people have the ability to exert self-control. Kurt Lewin (1947), has proposed that a multistage process of planned change divides the process of change into three stages; Unfreezing, Changing and Refreezing. In (1) Kurt Lewin sees through field studies that organizations that have been able to resist stagnation and achieve the required change have taken the time to create effective change and have not followed the policy of burning stages, because this leads to unforeseen results and therefore does not pass the criteria for effecting this process. In (2), the Changing Process, after diagnosis, the organization seeks to approach reform by setting up a homogeneous collection of ideas and goals for making structural changes to the organization, such as canceling some organizational units, or merging them. These changes may affect the powers and responsibilities of employees, or seek to propagate new values or adopt

modern technology that permits new methods of working that keep the institution active. (3) In the Refreezing phase, the organization installs and consolidates to retain the improvements of the previous stages by protecting them from any further change. It sets up a monitoring and follow-up committee that assesses the results of the change process (Lewin, 1947).

This is an experimental study; it observed employees' behavior at work as members of staff in a public hospital in Bahrain. From their feedback, it assessed their behavior to determine the level of their self-control. After this first assessment of their self-control, the employees underwent a planned change process to develop this attribute by applying the model by Michie et al (2011), which consists of several stages. Figure (1) below illustrates these stages as the conceptual framework of the study:

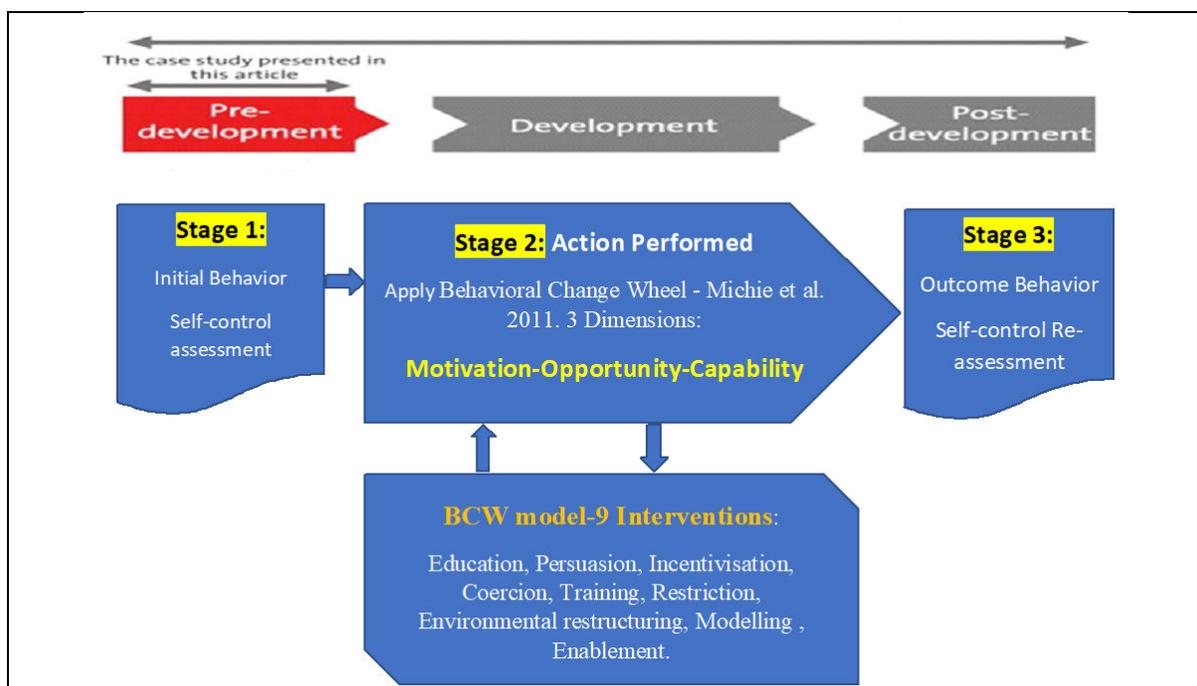


Figure 1: The stages of the change behavior (CBS) model as a conceptual framework for the study
Source: developed by authors

Thus this study seeks to achieve four objectives, as follows:

- 1- Identify the current level of self-control among the employees.
- 2- Arrange interventions and implement a development plan using the change behavior model which includes some courses and workshops in which employees can learn new techniques of self-control. This process probably takes several weeks until they absorb and apply in their actions what they have learned.

- 3- Make it easier to translate the theory into practice, given that changing behavior needs a planned program which takes along time, by first examining whether the change model will be effective. In addition, the study suggests a helpful way of making recommendations for designing and applying change intervention.
- 4- Re-use the measurement tool to re-assess the participants' self-control after the training.

Accordingly, three research questions have been generated, as follows:

- 1- What is the current level of employees' self-control?
- 2- Can people's self-control be developed through planned change behavior?
- 3- What is the level of employees' self-control after the program?

Methods

Handling a social phenomenon requires action field research conducted on scientific foundations. This makes the study subject to the scientific method, which in turn depends on scientifically designed field tools that help the researchers either to collect information or to channel the results into useful outcomes (Aldulaimi and Abdeldayem, 2019). In examining the level of self-control, this research uses the longitudinal method. The measurement of longitudinal change, however, has been a long-standing and controversial topic (Burr and Nesselroade, 1990; Hertzog, 1996). Longitudinal data are essential for investigating changes in individuals in the population and assessing effects of any kind. As scholars have specified, longitudinal research data collected at a particular point of time require at least three repeated observations containing a minimum of one of the substantive constructs of interest emphasizing change. While the minimum number of repeated measures for a longitudinal design is three, more than three is preferable (Chan, 1998). The longitudinal method has several advantages; with it, one can monitor any increase using growth curves. It allows the analysis of aspects of growth to be accurate and reveals the effects of environmental and cultural variables on behavior and personality. It provides an opportunity to analyze the relationships between operations.

Measures

The study adopted the questionnaire survey of Tangney et al (2004) to estimate the primary level of individuals' behavior with regard to self-control behavior in particular. The 13-Item Brief Self-Control Scale (BSCS) were used in this estimate. It is worth mentioning that the reliability and validation of the questions in the questionnaire have been tested in several previous studies.

Participants

As mentioned earlier, the study gathered data from two sections of staff in a public hospital in Bahrain, namely the Patient Registration Department and the Patient Reception Section, totaling 64 employees. This was the number of those who participated in the study from start to finish. It excluded some people who could not participate in some part of the study either due to special

circumstances or to their stopping work some time before it ended. The participants voluntarily agreed to take part in this experiment with encouragement from the Human Resources (HR) department in the hospital. All 64 participants were Bahraini (40 females and 24 males). The study took three months of experiment, from November 2019 until January 2020.

In order to maintain the participants' privacy, the study keeps its ethical undertaking to preserve the anonymity of the information that they revealed. Because the study accepted the guidelines of the HR Department and acted with its permission, the specific names of those who took part in this research are not disclosed.

Procedures

Following the model of Kurt Lewin, this study went through the multistage process of planned change, dividing the process of change into three stages, corresponding to the three stages outlined on p.4 above.

Stage 1: participants were asked to answer the questions about their self-control from a 13-item questionnaire devised by Tangney et al. by indicating levels of agreement with given statements on a five-point scale from 1-5. Previous studies confirmed that when participants were asked questions in a survey, they had a good chance to show themselves. The present study had enough respondents to reach the accepted level of reliability.

Stage 2: according to the change field theory of Lewin, at the second stage of change, people learn new ideas, methods, skills and knowledge. As a result, they behave in a new way or do their work in a new way, meaning that this is the stage at which actual change and amendment are made in the duties, tasks, performance, techniques, or organizational structure. Moreover, Lewin warns against rushing to implement this stage and changing things at an unreasonable speed, because that encourages resistance to changing the current situation, accompanied by confusion and feeling a mixture of safety and anxiety. To make lasting changes, this study relies on the Behavioral Change Wheel (BCW) as a new method of change designed by Michie et al (2011). The researchers worked closely with the participants through coordination with the HR department. The researchers provided the necessary activities and suggested other training activities for the HR to conduct that would be in line with the process of the changing behavior model mentioned above. In the first month the focus was on developing the employees' capabilities; in the second and third months, it was on opportunities and motivation in parallel.

Stage 3: after three months of hard work (i.e. from November 2019 until January 2020) to encourage the desired changes task, the researchers believed that it was time to move to the third stage of change. The refreezing stage, according to Lewin (1947) aims to stabilize change by helping individuals integrate the attitudes, ideas and behavior patterns they have learned into their usual working methods, making the modern methods easy, satisfactory, and self-

reinforcing. Furthermore, additional training and the enhancement of stability can be used in this stage. The process could then begin of re-estimating the self-control behavior by repeating the measurement of self-control and comparing the new results with the previous ones.

Data Collection and Analysis

In adopting the BSCS questionnaire of Tangney et al (2004), this study first presents the demographic profiles of the participants in the sample (see Table (1) below). This questionnaire is considered reliable and is the main source for collection data by which to measure the Self-Control of the sample. It was designed in line with the nature of the research and the type of data and information required. The questionnaire was distributed to the 64 employees in the sample to discover what they thought of their own behavioral self-control.

It was necessary to know the period of control of individuals before starting the process of change and the development of their performance. Preliminary data collected from the respondents related to the level of their self-control and their ability to control their behavior while at work to obtain clearly consistent evidence of the behavior they exhibited in performing work tasks (Abdeldayem and Aldulaimi, 2020). Since the questions were short and related to self-behavior, the questionnaire papers were collected upon completion in coordination with the hospital's HR Department. A preliminary analysis of the data revealed their high reliability. Through observing the behavior of the workers, the researchers discovered more about the problem that lies in employees' self-control and their resort to behaviors that were out of control and entailed conflicts with the beneficiaries of the hospital review. Since the study used a questionnaire that had been employed in several previous studies and had been found widely credible, the collected data were entered into the statistics software SPSS in order to measure the descriptive statistics. Several commonly used measures to describe the characteristics of a set of data, such as the mean, mode, minimum, max, variance, and standard deviation are shown in Table (1) below.

Table 1: Self-Control Results

	<i>Item Statement</i>	<i>m</i>	<i>SD</i>	<i>Level</i>
1	I am good at resisting temptation.	2.4	1.1	Bad
2	I have a hard time breaking bad habits.	3.4	.98	Bad
3	I say inappropriate things.	3.4	1.06	Moderate
4	I do certain things that are bad for me, if they are fun.	4.2	1.59	Bad
5	I wish I had more self-discipline.	4.1	1.03	Bad
6	Pleasure and fun sometimes keep me from getting work done.	4.5	2.59	Bad
7	I have trouble concentrating.	3.8	1.56	Moderate
8	I am able to work effectively toward long-term goals.	1.9	0.94	Bad+
9	Sometimes I cannot stop myself from doing something, even if I know it is wrong.	4.8	2.6	Bad+
11	I refuse things that are bad for me.	3.7	2.5	Moderate

12	People would say that I have iron self-discipline.	1.4	0.52	Bad
13	I often act without thinking through all the alternatives.	2.8	1.67	Bad

Results

The descriptive statistics are presented in Table(2). It can be seen that 64 employees participated in this study, of who the majority of them were female (62%). The largest percentage (50%) was between 30 and 39 years old. Regarding the level of education, 57% of the participants had a bachelor's degree. The work experience of 45% of the participants was between 1 and 5 years.

Table 2: demographic profile of the participants

		<i>number</i>	<i>percentage</i>
<i>gender</i>	male	24	38%
	female	40	62%
<i>Age</i>	20-29	9	
	30-39	32	50%
	40-49	19	
	50 more	4	
<i>education</i>	High school	22	
	Bachelor	37	57%
	High level	5	
<i>Work experience</i>	1-5	29	45%
	6-9	22	34%
	10 or more	13	21%

The participants rated on a 5-point scale how well the given statements described them (i.e. "I am good at resisting temptation"). The BSCS in the current sample demonstrated good reliability ($\alpha = .90$). In order to judge the success of the behavior modification, the targeted behavior could measure either the frequency of the behavior or the duration of its occurrence. It should be noted here that behavior modification is a continuous process of measurement in the pre-treatment baseline stage/during treatment/and the post-treatment phase (follow-up). The most famous method of measurement is the recording of repeated behavior: It measures the level of behavior in a specific period, and in this study the period is determined, on average, as three months.

Employing Behavioral Change Intervention

The process of redesigning the employees' behavior started by adopting the model that ensured the desired results. This study adopted the Behavioral Change Wheel (BCW). The employees diagnosed that they had quite low levels of self-control; therefore, the present research team proposed as developers to intervene to convert this behavior and make the necessary change. In doing so, the team believed that this was the first attempt to undertake a systematic analysis of behavior intervention frameworks and apply useful criteria to them. The study used an efficient method of choosing the kinds of intervention that are likely to be appropriate for a given behavioral target in a given context and a given population. This study adopted the BCW model, which consists of three main components (namely, motivation, capability and opportunity) – as shown in Figure (2) below – that may interact to generate behavior that in turn influences these components

The first step in the process is motivation which is defined as brain processes that energize and direct behavior (Mook 1995). Turner and Johnson (2003), defines learning motivation: as the desire of learners to work or participate in continuous learning and take responsibility for their own development. Capability is defined as the individual's psychological and physical capacity to engage in the activity concerned (Michie et al 2011), and opportunity can be taken to mean all the factors that lie outside the individual that make the behavior possible. To build a comprehensive approach to implementing change in behavior according to the BCW model, we used 9 intervention functions because this number was sufficient techniques to ensure the development of behavior, self-control in particular. They are as follows: Education, Persuasion, Incentivisation, Coercion, Training, Restriction, Environmental restructuring, Modelling, and Enablement. Figure(2) shows the components of the BCW model.

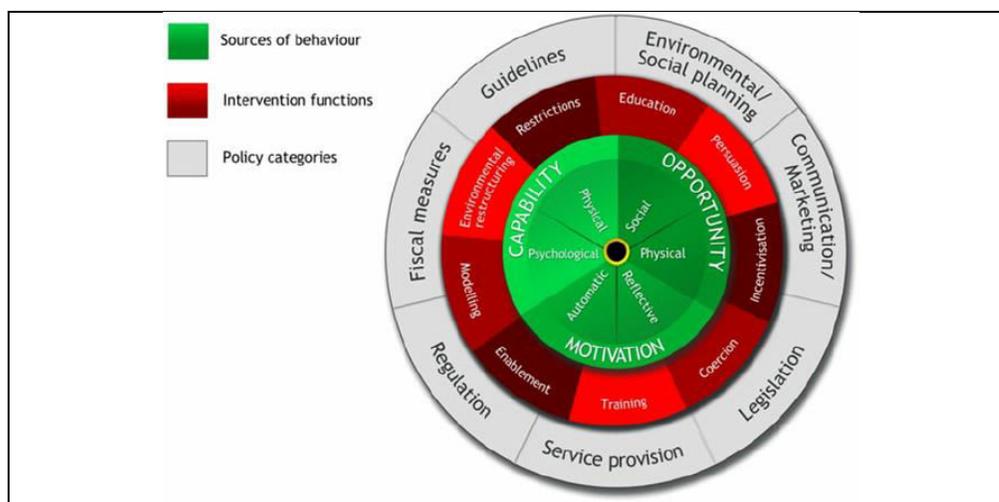


Figure 2: The Behavior Change Wheel (BCW) Model for implementing change behavior
Source: Michie(2011).

The first action was to increase employees' motivation because motivation is fundamentally important in the field of change behavior, and crucial in building and integrating personality and determining the types of human behavior. The purpose of the process was explained first because no activity can occur unless it has a goal that it seeks to satisfy. The human being is a living being capable of performing a wide variety of behaviors, such as perception. Motivation is what motivates people to perform these behaviors and motivates them to engage in a specific activity (Burns and Dobson, 1984).

In the first month (i.e. November 2019), the research team worked with employees to teach them to elevate their knowledge of motivation. Motivation contributes to natural, emotional, and cognitive changes in the individual, in terms of understanding, attention, remembering and forgetting, or through the effect of such changes on thinking and learning (Crocker et al 2013). The concept of motivation helps us to explain individuals' differences in work achievement when these differences are due to factors other than intelligence. Feldman and Elliott (1990), notes that motivation is a concept that includes all motivations. He indicates that there are two types of motivation: Internal motivation: that is, the subjective factors that drive people from the inside or are present in the task they are performing; and External motivation, driving people by factors outside themselves which reinforce their actions as they perform them.

It was a good opportunity for the employees to learn about motivation, and its internal or external effects on the organism. They learned that the motivation for self-control refers as a special case to an internal state of the worker that leads him/her to pay attention to the task in hand, accept it with targeted activity, and continue it until it is completed. According to Skinner's procedural conditioning theory, human beings, like all other animals, are catalysts for welcoming enhanced behaviors from the environment and avoiding punishing behaviors. Thus, the internal state of everyone in the sample was affected by boosters. The theory is concerned with internal and external factors, observation and interpretation of the causes of behavior, because it is a source of energy. Human beings extend behavior, elicit its activity, and direct it toward specific goals. Hence, to develop motivation it plays an important role in learning, and represents the desire to learn, know, understand, process information, formulate problems and solve them. The three factors, motivation, capability and opportunity, were used to develop motivation and the individuals' previous experiences also played an important role in the development and growth of motivation.

To ensure the application of all the requirements of the three dimensions, 2 months were allocated to the process of following the nine patterns of behavioral change model as suggested by Michie et al (2011). The next step was to measure the level of self-control and observe if any advance had been made. The same process of measuring the self-control as used in the initial stage was repeated. Mean-level change was assessed by comparing the mean of self-control scores at Time 1 (Week 1) with mean scores at Time 2 (week 10). To determine the degree to which the mean-level changes held for each participant in our study, we also assessed individual-level personality change. We classified people as having decreased, increased, or remained the same on each

dimension, based on the Reliable Change index (Christensen and Mendoza, 1986). Table(3)reports the means and standard deviations for each dimension at the beginning and end of the research period, as well as the standardized mean difference between Week 1 and week 10.

Table 3: The means and standard deviations for each dimension

<i>Item Statement</i>	<i>m</i>	<i>SD</i>	<i>Level</i>
1 I am good at resisting temptation.	4.18	0.69	High
2 I have a hard time breaking bad habits.	2.24	.62	
3 I say inappropriate things.	1.23	0.95	Good
4 I do certain things that are bad for me, if they are fun.	2.25	1.21	Good
5 I wish I had more self-discipline.	3.85	0.89	Good
6 Pleasure and fun sometimes keep me from getting work done.	3.54	0.80	Good
7 I have trouble concentrating.	2.68	0.67	Moderate
8 I am able to work effectively toward long-term goals.	4.05	1.28	High
9 Sometimes I can't stop myself from doing something, even if I know it is wrong.	2.69	0.69	Good
11 I refuse things that are bad for me.	3.92	0.44	Good
12 People would say that I have iron self-discipline.	3.81	0.54	Good
13 I often act without thinking through all the alternatives.	3.49	0.60	Good

Discussion

The revealed results indicate that level of self-control did not fall in any of the participants but a small group, 5% only, could make no further development in their behavior. The initial collected data on self-control revealed a significantly low level as reported by the employees. Therefore, it was motivating to the research team that this work environment promised to enable them to work to work experimentally one-to-one to improve this situation. Self-control as explained by Henden, (2008), refers to will-power or strength of will and it is clearly a form of intentional control over behavior. Thus, people clearly need greater power to control their behavior, particularly under temptation, and people enjoy acting in line with their desires even when these are harmful. We found also that people with low self-control reported an outstanding range of unhappy and undesirable outcomes at work, in their social life, personal adjustment, and emotional patterns. As noted above, the work on the nine aspects of the behavioral change model, as suggested by Michie et al (2011), took two months to ensure that all the requirements of the three dimensions (motivation, capability and opportunity) had been applied.

Encouragement and motivation determine how far employees initiate their activities independently and persevere for the sake of completing them, even if someone interrupts them or they feel frustrated before the end. Motivation encourages the processing of information in a way that achieves the goal, because employees motivated by encouragement pay more attention, and attention is necessary for information to enter the working memory and long-term

memory. When employees are motivated to enquire about a certain profession, for example, they tend to understand the material more thoroughly than if they had tried to memorize it without understanding; these are enquiries about something specific or to increase their skill in a task. Motivation, from the point of view of behaviorists, has a reinforcing function, determining what enhances employees' performance. The more employees are motivated to achieve success at work, the prouder they are of their assessment, and the greater their unwillingness to get a low score. Motivation thus leads to improved performance due to the above factors, and here we can say that the greater the motivation among employees, the greater the employees' work achievement. We focused on increasing the motivation for achievement, which is influenced by several factors, including cultural values, social role, training processes and interaction between group members. In this sense, the motivation to achieve is a learned and acquired matter that varies from one person to another and in different situations. Atkinson (1958), mentions three factors that determine the learner's ability to achieve, namely, the motivation for achieving success, the probability of success and the value of the motivator of success. On this basis, we set out to raise the participants' desire to succeed and we noticed the energy of their implementation very obviously increasing gradually day by day.

The training elements were designed and focused on developing particular skills which would improve self-control. They provided a form of self-control training, in no sense a suppression of feelings. The sample was asked to look at something surprising without saying a word and to bump into something and bury their feelings without exclaiming. They were asked to face something that would disturb or irritate them but then turn away from it without reacting. They were monitored and encouraged to be patient, and not show anything of tightness in the chest or anger. They were invited to write about the situations that they had gone through that day when they managed to fully control themselves. On this, they might score, for example, 50% and at least 60% the day after, until it reached 90% within a week. The participants realized what was going on and were convinced by the end that having the power of self-control over personal behavior was a personal decision. Thus, once people take the decision to subject their behavior to control, they will take on any responsibilities and perform any actions that reflect this positive view.

Another procedure was letting everybody watch a colleague and note any remarks he thought should be considered. Everyone knew he was being observed and his reactions would be recorded, even though the process of observation brings stress and anxiety (Griffin, 2008). In a monitored organization, the most frequent anxiety is generally not whether monitoring should take place, but how it should be performed, how the information should be used, and how feedback should be communicated to all individuals in the organization. In behavior modification programs and their implementation, the model of change is very important. It includes a set of general steps that these programs should contain. They are: Components of the behavior modification plan; Determining the target behavior; Defining the target behavior; Measuring the target behavior; Functional analysis of the behavior; Designing the treatment plan; Implementing

the treatment plan; Evaluating the effectiveness of the treatment program; Summarizing the results and writing the report.

It is worth mentioning that the HR Department supported our project and its staff were keen to assume their share of responsibility for changing the behavior and increasing the self-control of the workforce. They believed in taking the opportunity of restructuring employees' behavior to cope with the hospital strategy of healing people. The workplace environment would have the chance to be restructured when people believed in the employees and gave them the trust and confidence they needed to accept change. Behavior modification is a form of therapy that aims to achieve changes in the behavior of an individual that makes the lives of those around him more positive and effective (Al-khrabsheh et al 2018) examples, such as positive reinforcement or empowerment, lead simply to amendments in the type of behavior being targeted.

Conclusion

Self-control is an individual internal power that enables a person to act in ways consistent with ethics and appear more reasonable. This empirical study aimed to achieve four objectives: a) identify the level of employees' self-control; b) arrange interventions; c) follow a development plan using a change behavior model; and d) put on some courses and workshops to ensure that employees learned new techniques that would improve their self-control. This process took several weeks until they understood and applied what they had learned to their actions. Changing a behavior to something that is desired needs planned change and takes a long time. This study, therefore, aimed also to pave the way to translating theory into practice by examining the change model to ensure the development of self-control in behavior. In addition, it sought to suggest useful recommendations in designing and applying change intervention and re-using the measurement tool to re-assess participants' self-control at the end of the process of development.

The study used a combination of models to change human behavior. Behavior modification is currently used extensively in various fields, not only in education, but extending to the judiciary, sports and even politics. Thus, the science of behavior modification is one of the most important sciences applied to human behavior. Behavior modification has evolved lately and has become more interested in the aspect of cognitive behavior. It is a structure-specific form of learning in which the individual learns new skills and new behavior, reduces unwanted responses and habits, and increases the motivation for the desired change. The behavior modification strategy proceeds according to specific steps to implement the behavior change program. The first step is determining what behavior is intended to be modified or changed so that it can be observed, measured and evaluated. Defining and measuring targeted behavior procedurally requires a procedural definition and a clear behavioral formulation of the behavior that we want to remedy so that it can be observed and measured. This is intended to define the conditions and situations that precede the occurrence of the behavior and may constitute a factor in its occurrence, as well

as to determining the consequent results. The goal to be reached must be clearly defined; in this case the behavioral goal is to improve people's self-control, by the completion of the behavior modification program. This means choosing the appropriate strategy, procedures and techniques to modify behavior. The effectiveness of any program is determined by the extent to which it achieves its goals, and accordingly, a behavior modification program is judged by how close it is to achieving the desired goals and formulating them in a procedural way, whether the goal is to support desired behavior, shape new behavior, or extinguish unwanted behavior.

The results of this study are inspiring: that identifying behavior in a workplace needs a plan to improve it by design and work to carry out the plan with obvious interventions. It was believed that self-control produces positive benefits to employees and organization and suggested that the benefits of self-control are worth serious consideration. It was found that people with high self-control felt greater well-being at work, were better adjusted, and had better interpersonal skills, better interpersonal relationships, and richer emotional lives than other people. Nevertheless, this study has limitations related to the longitudinal method; the selection factors in the original sample included individuals who agreed to participate in research of a special nature that would continue for several months and were chosen according to control factors instead of being randomly selected. In such cases, it is difficult to generalize the results of this longitudinal research to the original community. The effect of repeating the observations: the repeated practice of testing and increasing familiarity with the research team, and the autonomy in one of the groups for a fairly long time may all affect the sample's performance in the tests, their directions and their motives. Future studies should be able to generalize the change in behavior to new situations in a natural environment. They can identify other behaviors and apply the design used in this study to test and modify undesired behavior that may perhaps contribute to enhance the employees' performance.

Finally, it should be noted that this study adds to the body of knowledge by developing and validating a new model in change human behavior, i.e. the change behavior stages (CBS) model. Practically, this study is the first of its kind in the Middle East to apply the Brief Self Control Scale (BSCS) and the Behavioral Change Wheel (BCW) in health sector. The BCW has also been confirmed as a "valid" and "reliable" instrument that can be used by future researchers to improve human behavior in organizations.

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