Framework of Self-control Based SOC Strategies of Intentional Self-regulation and Stress Coping

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Abstract

Now psychology has become more mature and systematic, so it is widely applied to various fields to observe and understand people’s initiative and to predict its influence on society and environment. Based on this, the intentional self-regulation emerges, which refers to that individuals regulate their behavior and adapt to the environment or resource conditions. Massive amount of research shows that intentional self-regulation provides positive intervention in individual development, but research regarding the internal mechanism and predictors are in short. In self-control based intentional self-regulation, this paper analyzes relations among intentional control, self-control, and cognitive emotional regulation to explore the internal mechanism and related factors that influence intentional self-regulation. Then it studies the SOC strategies, and proposes a specific framework of stress coping.

Keywords: Self-control, Intentional Self-regulation, SOC Strategies, Stress Coping.

1. RESEARCH BACKGROUND

1.1 Literature review

Since the existence of human beings, the most important skills they have had is regulating themselves to take initiatives to adapt and change. In their youth, human could only depend on the parent to sustain and grow, in which they learn skills and adjust themselves to finally adapt to or even change the environment. It is in this process of changing from dependents to self-regulated independents that we put our initiatives into full play (Chang et al., 2017). In early development stages of psychology, researchers focused on external factors like heredity and environment or innate factors on their development, but not on the human initiatives. Until recent years, system theories led many researchers to shift their attention to initiatives, which become the interest of future psychology (Fang and Chen, 2016). Self-regulation is the primary form of self-control, while intentional self-regulation (ISR) is a way of people regulating themselves in the development. The ISR indicates that people regulate their behavior or change their goals according to the environment or resource conditions during their development. Unlike childhood, the ISR lay more emphasis on long-term goals and future consequences, through inner standards and following actions (Xiao, 2016). The ISR is one critical predictor for individual successful development. According to a related survey, people with the weak ISR have lower cognitive and coping abilities in handling emotions, and experience more negative emotions like anxiety or depression. Besides, the ISR could predict bad behaviors, like taking risks or making errors, through which self-control abilities could be reflected. Research shows that emotion regulation is critical to self-control, then understanding the relations among the ISR, cognitive emotion regulation, and self-control is the psychology research direction (Xiang and Zhang, 2016).

1.2 Research purposes

This paper aims to explore the internal mechanism and related factors that influence the ISR by analyzing the relations among cognitive emotion regulation, the ISR, and self-control, and acquire a feasible solution as how to realize the ISR. Thus, in the self-control based ISR, the paper elaborates on the connotation and relevant theories of the intentional control, self-control, and cognitive emotion regulation strategies, then probes into the self-control based ISR SOC strategies, explores the related factors that affect internal mechanism of the ISR by
questionnaire on self-regulation, SOC, and cognitive emotion regulation strategies, before identifying the relations among the three. Based on the above, the paper proposes a framework of the self-control-based ISR stress coping.

2. THE SELF-CONTROL BASED ISR

2.1 The ISR

The concept of the ISR was proposed on the results of three fields: positive youth development, system theory development, and context theory development (Hao and Yan, 2016). Individual development regulation occurs under the collective effect of context and individual, in which self-regulation has two forms: the ISR and body self-regulation. The ISR is a process that individuals regulate themselves on their initiative to achieve their goal; the body self-regulation is realized by physiological structures and functions which influence the relation of individuals and environment, it is not or only partially subject to self-control, so the ISR and body self-regulation is to some extent correlated (Wu and Wang, 2106). The ISR is based on three theories, that is, SOC theory, life-span theory of control, dual-process model of assimilation and conformance. The SOC theory in the ISR involves three elements: the application of internal resources, regulation of environment and themselves, and application of external resources. Life-span theory of control treats the life cycle as a period with certain goals, which consists of three stages: goal selection, integration, and goal removal. Also, it includes control theories and classifies controls into primary control and sub control, indicating external environment and self respectively (Zhang and Wu, 2016). The dual-process model of assimilation and conformance, consisting of assimilation model and conformance model, coordinates the self and the goal when conflicts between self needs and resources occur to strike a balance. The ISR evaluation is mainly based on SOC theory (He and Shi, 2015).

2.2 Self-control

Self-control is an ability that accords with value, time, morality, and goal that individuals consciously overcome their habits or impulses. It forms in childhood and is relatively stable. According to the self-control theory, some researchers proposed a strength model, which claims that individuals would consume a certain psychological resource to apply self-control, a resource that is stored in a resource library with limited capacity and directly determines self-control abilities. However, as the resource has a limit and individuals consume it every time they exert self-control, then the reduction in self-control abilities is the so-called ego-depletion (Zheng et al., 2015). In measuring self-control, researchers composed a questionnaire according to the six characteristics of self-control. It has altogether 24 questions and covers six dimensions: self-center, action, risk-taking, impulsiveness, easy task tendency, and emotionality. Later, the measure was revised to five then finally three dimensions: simplified tendency, self-emotionality, and risk-taking, which fall into two categories, one is physiological, and the other is mental and experience (Zhu et al., 2015).

2.3 Cognitive emotion regulation strategies

Emotion regulation has two types: behavioral emotion regulation and cognitive emotion regulation. Cognitive emotion regulation focuses on the stability of cognitive strategies and the variability of contexts. Emotion regulation strategies have the behavioral and cognitive dimensions, some researchers explored the emotion regulation strategies from the cognitive perspective and identified nine types of cognitive emotion regulation strategies with empirical research, which include acceptance, self-blame, rumination, blaming others, refocus on planning, positive focusing, positive reappraisal, catastrophizing, and putting into perspective (Xie et al., 2014). Cognitive emotion regulation strategies are measured by questionnaires on emotional intelligence and cognitive emotion regulation strategies. This paper adopts the latter. The questionnaire has 36 items and includes negative strategies (self-blame, catastrophizing, acceptance, blaming others, and rumination) and positive strategies (positive focusing, putting into perspective, refocus on planning, and positive reappraisal), then it identifies the strategy type adopted by individuals with Likert scale.

3. THE SELF-CONTROL BASED ISR SOC STRATEGIES

3.1 Research hypothesis and its significance

To discuss the relations of the three, the paper proposes a hypothesis that (1)cognitive emotion regulation strategies, self-control, and the ISR of different individuals vary because of age and gender, (2)cognitive emotion regulation strategies, self-control, and the ISR are clearly correlated with various dimensions where positive
cognitive emotion strategies have positive correlation with the ISR while self-control and the ISR have negative correlation with negative cognitive emotion strategies, and (3) path relations are the ISR is subject to both self-control and cognitive emotion regulation strategies (Wang et al., 2014). Figure 1 shows a schematic map of the predictive path of self-control based self-control and cognitive emotional strategy.

![Figure 1. A Schematic Map of the Predictive Path of Self-control Based Self-control and Cognitive Emotional Strategy](image)

By exploring the internal mechanism and related factors of the ISR, the paper enriches and develops the ISR theories, and provides reliable theoretical reference for enhancing the ISR abilities, based on which the paper proposes the self-control based ISR stress coping strategies and identifies the framework of stress coping.

3.2 Research design and methods

The paper studies a high school in Xi’an and sends 212 questionnaires. Of the 200 valid questionnaires, 94 are males and 106 females, 88 are aged 15, 56 are aged 16, 35 are aged 17, and 21 are aged 18. The paper adopts the ISR questionnaire (SOC questionnaire), self-control questionnaire, and questionnaire of cognitive emotion regulation strategies. The paper makes sure that individuals joined with informed consents, and provides guidance for the questionnaire. The experiment lasts half an hour and respondents could receive a gift. The collected data is processed and analyzed with SPSS20.0 to ensure the effectiveness of data (Huang et al., 2013).

3.3 Research result

Of the ISR SOC questionnaire results in the three dimensions, the scores are quite balanced, with the highest in compensation and the lowest in selection. Suppose the gender and age are the independent variables, and related factors of the ISR are the dependent variables, calculation result of the variance of the two shows that clear age-related difference could only be found in the compensation, while the three dimensions in SOC questionnaire see no clear difference due to age or gender. After making repeated contrasts in the score achieved in compensation dimension, the paper finds that the older far outdoes the younger in compensation scoring. In the questionnaire of cognitive emotion regulation strategy, acceptance, positive refocusing, and positive focusing out of the nine dimensions receive the highest score, while blaming others and self-blame are scored low. Self-blame shows clear individual difference, but negative and positive strategies show no clear age-related difference. In the self-control questionnaire, easy tendency has the highest score, while risk-taking and self-control are scored lowest. Self-control shows no clear difference in gender, but age shows clear difference in risk-taking, and the younger scores much higher than the older in risk-taking.

3.4 Result analysis

Through further analysis of the result, it is known that positive cognitive emotion regulation strategies and the ISR are in high positive correlation, while the self-control based ISR and negative cognitive emotion regulation are in high negative correlation. This indicates that the three dimensions in self-control exert mediating effect on the ISR, positive cognitive emotion strategies, and negative cognitive emotion strategies, especially on the ISR and negative cognitive emotion strategies, with the mediating effect at 54.7%.

4. FRAMEWORK OF THE SELF-CONTROL BASED ISR IN STRESS COPING
As it turns out, individuals would deplete their psychological resources in self-control and increase their pressure, so before coping the stress, their psychological stress should be evaluated with relevant calculations. The paper adopts an updated psychological stress evaluation method that supports vector machine, and the calculations are as follows: suppose the surface EMG is the evaluation parameters, clustering algorithm is used to calculate the loss function, whose formula is \( F = \frac{C}{n} (\sum_{i=-1}^{N-1} \delta - \varepsilon_j + \sum_{i=1}^{N+1} \delta^i) \), then make the error sum of plus equal that of minus, that is, \( \varepsilon_i^2 + \sum_{y=1}^{N} \delta^2 = \sum_{y=-1}^{N} \delta^2 - \varepsilon_i^2 \), whose approximate relation can be calculated with the formula \( N_\delta = N_\delta + 2 \), and then evaluate the psychological stress to establish the stress coping framework (Jia and Zhang, 2013). The figure 2 shows the schematic diagram of the ISR stress coping framework based on self-control.

![Figure 2. Schematic Diagram of the ISR Stress Coping Framework Based on Self-control](image)

As can be seen in the figure, the key to cope the stress in the framework is recognizing the problem and identify the pressure sources as well as the solution to change or eliminate it. If the pressure source cannot be changed or eliminated, seeking special advisory services is an option. The process ends with monitoring and evaluating the results.

5. CONCLUSION

In conclusion, the period individuals think about their life goals and dreams is when they are experiencing the growth in the ISR, which is achieved by constant self-control. This has critical influence on their positive improvement. For the self-control based ISR, people should first identify their goals before they fulfill it by channeling various resources and choosing strategies. Meanwhile, they should constantly adjust the goal according to the situation: when the goal cannot be achieved because of the changed situation or lost resources, they are supposed to modify the goal or compensate the lost resources, so as to adapt to the changed environment and be better equipped to cope the stress.

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