SELF-CARE - SELF-REGULATION

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Abstract: The main aim of this study was to focus specifically on the area of self-care and identify dimensions of self-regulation within this context. In this study, self-care is conceptualized as a much broader phenomenon. Self-care contains a self-regulatory activating and inhibiting component. For this reason, we constructed and verified a new questionnaire for measuring self-regulation in the context of self-care named the Self-Care Self-Regulation Questionnaire (SCSRQ). Based on the factor analysis four factors were extracted: Personal growth, Healthy life style, Control over negative mood, Control over health risks. The results support a dual concept of self-regulation. The factor analysis also distinguished between self-care of health (factors Healthy life style and Control over health risks) and self-care of psychological well-being (factors Personal growth and Control over negative mood).

Keywords: self-regulation, self-care, health, well-being

1 Self-care

The topic of self-care has been established as a subject of research mainly in the context of nursing in relation to health (Jarsma et al., 2003). This is reflected in many definitions in which self-care is basically defined as taking care of one´s own health (Godfrey et al., 2011). Most of the research of self-care focuses on people suffering from health problems (Riegel, Jarsma, Stromberg, 2012). However, it can be argued that self-care is not necessarily limited to the context of health and illness. Self-care as such is relevant for the whole population and related to a whole spectrum of other issues.

For example, Orem (2001) in her theory argues that application of a broad definition of self-care is needed. She defines self-care "as the practice of activities that mature person initiates and performs, within time frame, to promote and maintain personal well-being, healthy functioning and continuing development throughout life" (Orem, 2001, p. 52). Others have also pointed out the there is a relationship between self-care and well-being (Moore et al., 2011). Jaarsma et al. (2003) suggested that self-care could be a universal phenomenon which is triggered by the presence of health problems or by developmental issues. However, at the same time it has been emphasized that any activity related to self-care is based on an initiative of an individual (Godfrey et al., 2011). The fact that self-care should be understood as a part of a wider context is supported by the existence of terms such as psychological and spiritual self-care (Moore et al., 2011). In particular, psychological self-care has been given a substantial attention with respect to its relation to work stress, burnout syndrome and further problems often faced by psychologists, social workers and therapists (Maltzman, 2011; Lovašová, 2015; Raczova, Lovašova, 2016; Halachová, Lichner, 2017; Mesárošová, 2017).

Defining self-care as a set of initiatives of an individual raises the question of their psychological background. Some definitions of self-care present self-care as an ability but this does not provide any explanation regarding the underlying process. For a better understanding of the processes involved in the psychological background of self-care as well as factors that influence it, it is important to put self-care in the existing theoretical context. The importance of recognizing this background was pointed out by Leventhal, Leventhal and Robitaille (1998). They presented their view of self-care and put it in the context of self-regulatory processes. The concept of self-regulation is defined as a consciously regulated activity (or a set of activities) by an individual (by his/her self) and therefore represents a natural framework for explaining the psychological background of self-care. As a result, the concept of self-regulation can provide a background for the self-care domain within which self-care activities are based on self-regulatory processes.

2 Self-regulation

Self-regulation is frequently studied in relation to the processes of selection, goal pursuit and behavioral change. For example, Hoyle (2010) defined self-regulation as a set of intra-individual processes through which an individual maintains the pursuit of his/her goals. According to Baumeister, as well as a number of other researchers, self-regulation can be defined as a complex ability of human beings to exercise control over their internal states, processes and behavior. Self-regulation manifests itself as an ability of an individual to change his/her behavior, modify it and adjust it to certain requirements (Baumeister, Vohs, Tice, 2007).

Defining self-regulation as a set of complex processes highlights the importance of the identification of these processes and their conceptualization. For example, Carver and Scheier (1982) proposed a cybernetic model of self-regulation consisting of four components: reference, input, comparator and output. Next, Kanfer (1970) proposed a model consisting of three processes of self-regulation (self-monitoring, self-evaluation and self-reinforcement). Then, Miller and Brown increased the number of processes involved in self-regulation to seven. In order to identify these processes they have constructed the Self-Regulation Questionnaire (SRQ) (Brown, Miller, Lawendowski, 1999), which consists of seven dimensions (informational input, self-evaluation, instigation to change triggered by perceptions of discrepancy, searching for ways to reduce discrepancy, planning for change, implementation of behavior change, and evaluation of progress toward a goal). Carey, Neal and Collins (2004) explored the factor structure of this questionnaire and failed to confirm its original factor solution. Instead, they found support for the existence of a single factor with 31 items. Based on this finding a short version of the SRQ named the SSRQ (Short Self-Regulation Questionnaire) was created. Following this, Neal and Carey (2005) continued with the psychometric testing of the SSRQ and identified two factors: impulse control and goal setting.

The overview of the research findings shows that when describing the processes of self-regulation it is important to include the processes which inhibit activation in certain directions. This corresponds with the distinction between the two basic motivational systems: activating and inhibiting (Carver, White, 1984). It also corresponds with the concept of self-regulation defined as a complex ability of an individual to exercise control over his/her internal states (Baumeister, Vohs, Tice, 2007). This basically means that having control over oneself, or exercising self-control, is a part of self-regulation. Self-control is characterized as an ability of an individual to keep under control and suppress or inhibit inappropriate pressures which can be either elicited by stimulation form the outer environment or spontaneously emerge from individual´s inner states. Self-control stands, within the current research, as an independent construct distinct form self-regulation (Tangney, Baumesiter, Boone, 2004) and this allows for testing the assumption that there is a positive relationship between self-regulation of self-care and self-control, which is implied by their definitions.

3 Research

The presented background shows that when operationalizing self-regulation in the context of self-care, it is possible to distinguish individual components based on their specific content as well as with regard to the systems involved, represented by the activating and inhibiting systems. The content is given by focusing on health and physical well-being or on psychological well-being and personal development. Both types of focus contain a proactive or activating component which is

represented by goal orientation and self-control used to avoid risky situations.

The main aim of this study was to focus specifically on the area of self-care and identify dimensions of self-regulation within this context. While the current understanding of self-care is predominantly seen in relation health, in this study it is conceptualized as a much broader phenomenon. The theoretical analysis has resulted in a construction of a new questionnaire for measuring self-regulation in the context of self-care. This was followed by a project of rigorous verification of this instrument.

3.1 Sample

In this study, the analysis was based on several archived datasets. Within these individual data collections respondents completed the Self-Care Self-Regulation Questionnaire (SCSRQ), which was administered as a part of a larger questionnaire set. In total, data from 777 respondents (328 males and 449 females) were included in the analysis. The age of the respondents ranged from 18 to 60 (mean 30.57, standard deviation 14.57). The respondents were adult volunteers residing in Košice, Spiš and Bratislava regions. In addition, 172 of the respondents completed the Self-Control Scale and these data were used for the purposes of correlation analyses.

3.2 Measures

Based on the presented theoretical background, the aim of this study was to construct a new questionnaire for measuring self-regulation in the context of self-care. The questionnaire was named the Self-Care Self-Regulation Questionnaire (SCSRQ) and the draft version of this questionnaire consisted of forty items, which represented a range of self-care possibilities regarding physical and psychological well-being. Each item was rated on 5-point scale, ranging from 1 (not typical form me) to 5 (very much typical for me). The items measuring psychological well-being and personal growth were inspired by the definitions used for categories in Riff's Scale of Psychological Well-Being (Ryff, Keyes, 1995), as well as other sources. These items covered domains such as: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, personal growth and emotion regulation. Three items for every category were formulated to address both the activating as well as the inhibiting component of self-care (e.g. "I try to develop my potential"; "I try to suppress depressive thoughts"). Self-care regarding health and physical well-being was measured by sixteen items of the Self-care questionnaire (Lovaš, 2010) (e.g. "I try to live healthily"; "I try to take care of my figure"; "I avoid risky situations").

The Self-Control Scale (SCS) (Tangney, Baumeister & Boone, 2004) was used for the purpose of correlation analysis with the finalized SCSRQ factors. The SCS measures dispositional self-control behaviors and consists of 36 items rated on a 5-point scale, ranging from 1 (Not at all like me) to 5 (Very much like me). The SCS has been adapted into the Slovak language and the Slovak version of SCS (with one item excluded) was published by Lovaš (2008). The Cronbach's alpha was of this questionnaire was 0.86.

3.3 Statistical analyses

Exploratory factor analysis as well as all presented statistical procedures were carried out using the SPSS 21.0 software.

4. Results

The raw questionnaire score was used in the analyses. The mean score of the SCSRQ in the total sample was 138.94 (range 46-179) with a standard deviation of 18.09. Internal consistency of the scale proved to be adequate (Cranach's alpha = 0.92).

4.1 Factor analysis

Guided by the scree-test and orthogonal varimax rotation four robust factors were extracted explaining 50.6% of variance in total. The individual factors explained variance as follows: factor 1: 17.4%, factor 2: 14.2%, factor 3: 10.5% and factor 4: 8.5%. The item loadings of individual factors and the eigenvalues are described in detail in Table 1. Eight items form the initial versions of the questionnaire were withdrawn due to a low factor loading (under 0.3).

Table 1 Factor structure of The Self-Care Self-Regulation Questionnaire

Items		F1	F2	F3	F4
13.	I try to achieve my goals	0.69			
14.	I try to use my abilities	0.65			
17.	I try to be in charge of my life.	0.64			
6.	I try to develop my potential	0.63			
20.	I try to improve my abilities/ I work on my personal growth	0.62			
12.	I try to use all the opportunities that I get in my life	0.62			
16.	I try to be satisfied with myself	0.59			
5.	I try to live a meaningful life.	0.57			
19.	I try to see my work in the context of my future perspective	0.54			
3.	In the first place, I try to rely on myself.	0.52			
4,	I try to control my environment	0.52			
18.	I try not to be controlled by the pressures from the environment	0.51			
11.	I try to do what is in line with my principles	0.49			
10.	I try to look for positive things even in my failures	0.45			
32.	I try to take care of my figure		0.80		
25.	I try to have optimal weigh		0.74		
30.	I try to do regular physical activity		0.74		
22.	I try to take care of my condition		0.72		
23.	I regularly monitor my weigh		0.71		
29.	I try to have a healthy diet		0.67		
24.	I try to eat healthily		0.67		
26.	I try to live healthily		0.64		
27.	I try to look good		0.53		
31.	I try to suppress pessimism			0.74	
7.	I try to be in a positive mood			0.73	
15.	I try to have good mood			0.72	
21.	I try to suppress depressive thoughts			0.64	
2.	I am careful not to get injured				0.75
8.	I am careful not to get ill				0.71
28.	I avoid risky situation				0.68
9.	I make sure that I get a good night sleep				0.50
1.	I try to take core of my health				0.49

As shown in Table 1, the first factor (F1) SCSRQ contains fourteen items. Detailed analysis of their content showed that individual items reflect self-regulation in terms of goal directed behaviour and personal growth. These items addressed self-care

and well-being and based on this the first factor was named Personal growth.

The second extracted factor (F2) consisted of nine items which measured the activation of physical self-care. These items addressed how an individual tries to live healthily by monitoring his/her weight, diet and physical shape. This second extracted factor was named Healthy life style.

The third extracted factor (F3) consisted of four items which mainly addressed individual´s effort to maintain control over psychological well-being and inhibit negative mood. This factor was named Control over negative mood.

Finally, the fourth factor (F4) consisted of five items which addressed the effort to control physical health and avoid risk behavior. The factor was named the Control over health risks.

The following analysis of the extracted factors and individual items showed that the SCSRQ reflected the dual character of self-regulation in self-care. Specifically, the factors Personal Growth and Healthy life style measured goal setting in the context of health, whereas the factors Control over negative mood and Control over health risks reflected the effort to suppress or avoid undesired behaviors. This questionnaire was also based on a wider view of self-care when the physical (F2 Healthy life style; F4 Control over health risks) and the psychological (F1 Personal growth; F3 Control over negative mood) can be distinguished within the domain of self-care.

Inner consistency of the final version of the Self-Care Self-Regulation Questionnaire was 0.89 and inner consistency of individual factors ranged from 0.72 to 0.87 (F1 = 0.80, F2 = 0.87, F3 = 0.76 a F4 = 0.72).

4.2 Correlation with self-control

In the final step in the analysis, the relationship between the newly constructed questionnaire and the Self-control scale was analyzed. As can be seen in Table 2 the Pearson correlation coefficients between the SCSRQ, as well as its factors, and the SCS were found to be significant and positive.

Table 2 Pearson correlation between the factors of the Self-Care Self-Regulation Questionnaire and Self-control scale

Factors SCSRQ	**F1**	**F2**	**F3**	**F4**	**HS**
SCS	0.31**	0.28**	0.17*	0.43**	0.42**

F1 = Personal growth, F2 = Healthy life style, F3 = Control over negative mood, F4 = Control over health risks, HS = total score, *p < 0.05, **p < 0.01

5 Discussion

The most important contribution of this study is the identification of the four factor structure of self-care self-regulation based on the factor analysis of the items of the SCSRQ. The identified factors were named: Personal growth, Healthy life style, Control over negative mood, Control over health risks. The questionnaire as a whole, as well as its individual subscales showed good psychometric properties. All alpha coefficients reached values well above the desired criterion of 0.70 which is required as a minimum for newly constructed instruments. The relationship between self-control and self-care self-regulation was found to be statistically significant and this was also found with regard to all SCSRQ factors. The Self-care Self-Regulation Questionnaire was also found to be positively and significantly associated with self-control.

From the perspective of theoretical consistency, it is a positive finding that the identified factors corresponded with important aspects of current approach to studying self-regulation and self-care. In case of self-regulation, the results of the factor analysis can be interpreted as supporting the dual concept of self-regulation which distinguishes two basic components: goal setting and impulse control (Carver, Scheier, 1984; Strack, Deutsch, 2004). The factors of Personal growth and Healthy life style represent goal orientation and the factors Control over health risks and Control over negative mood represent the tendency to inhibit impulsive behavior in these domains.

However, it is still a matter for further discussion whether factors, and the particular items, sufficiently address goal-oriented behavior. In other words, whether the responses of the respondents sufficiently reliably measure goals regarding to health, physical well-being, psychological well-being and personal growth. Future research should address whether the factors Control over negative mood and Control over health risks sufficiently measure the ability to inhibit impulses which disrupt the physical and emotional well-being.

The findings of this study are significant for self-care research, especially because the identified factors correspond with the theoretical assumptions regarding self-care in the context of health. At the same time they emphasize the fact that a broad and complex approach for studying this construct is needed. Another finding which supports this conceptualization is the fact that the constructed questionnaire (consisting of items regarding self-care, psychological well-being and personal growth) was internally consistent. High correlations were observed between individual items and the total score SCSRQ. In addition to this, the factor analysis distinguished between self-care of health and self-care of psychological well-being and personal growth. In particular, the factor Personal growth and the factor Control over negative mood represent the self-care regarding psychological well-being and the factors Healthy life-style and Control over health risks represent the striving to maintain physical health and have a long life.

Further research in this area using the SCSRQ can built on the positive correlations between self-control and the total score as well as subscores of the SCSRQ. These correlations demonstrate that there is an inherent association between self-regulation, self-care and self-control which was also observed in our previous research (Lovaš, 2010). Although, a stronger association between the SCS score and the individual factors representing content specific self-control within the SCSRQ (subscales Control over negative mood and Control over health risks) had been expected. While statistically significant correlations were found they were relatively small. Surprisingly, the smallest observed correlation was found between the SCS and the factor Control over negative mood in self-care. This could be partially explained by the wording of the items in the SCS and should be addressed in further research.

This study focused on the self-care in terms of self-regulation. For this purpose the Self-Care Self-Regulation Questionnaire with final 32 items was created and psychometrically tested. The self-regulation offers a possibility to clarify the background of self-care. It enables to adapt a broader view of self-care, which does not limit it only to health care. This new questionnaire can be used in the field psychology, health or social work.

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