



Development and Validation of Sources of Self-Knowledge Scale in Iranian Population

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Authors' contributions

This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JSRR/2017/35584

Editor(s):

(1) Ani Matei, Faculty of Public Administration, National University of Political Studies and Public Administration, Bucharest, Romania.

Reviewers:

(1) Martin Potgieter, University of Limpopo, South Africa.

(2) B. P. Bhaskar, India.

(3) Reda M. Nabil Aboushady, Cairo University, Egypt.

(4) Collette Loftin, West Texas A&M University, USA.

Complete Peer review History: <http://www.sciedomain.org/review-history/21478>

Original Research Article

Received 20th July 2017
Accepted 10th October 2017
Published 19th October 2017

ABSTRACT

Objective: The purpose of this study was development and validation of self-knowledge sources scale of Iranian people.

Methods: The design of the study was an ex post facto and a survey study to be carried out in data collection. The population included all People between the ages of 20 to 60 year's old living in Tehran. 800 subjects were selected using stratified sampling method. To collect data, Self-Knowledge Sources Scale was used. The validity and reliability of Self Knowledge Sources Scale were measured at among men and women.

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Results: The results indicated that Self-Knowledge Sources Scale has reasonable internal reliability and Coefficient alpha estimates of internal reliability were 0/861. Split-half correlation between the 15 questions of Self Knowledge Sources Scale equals 79/0 which shows good internal reliability.

Conclusion: According to the results of this study, Statistical analysis related to the reliability of the Self Knowledge Sources scale reveals a favorable psychometric criteria.

Keywords: Development; self-knowledge sources; validation; imbalance.

1. INTRODUCTION

There are various viewpoints regarding the explanation of the existing damages for societies and individuals: the perspective of imbalance among human individuals which constitute a society – the perspective of imbalance in the conditions and status of a society, or an interplay between both. In other words, it is better to question that if we should start from individuals or societies; authenticity of individuals, societies, or both. The perspective that can be chosen for explaining the psycho- social damages and their corrective strategies includes all the three perspectives: in explaining and describing the damages to the humans' psyche, the individual dimension is to be investigated deeply, afterwards, a number of strategies for modification and therapeutic interventions on the society level and on the level of interaction between the society and the individual will be proposed [1].

In order to have an in-depth understanding of humans, the best approach is to know the components of self in human through which vulnerabilities of individuals in a society (harmful points) would be identified, and corrective strategies can be found on the individual and society levels for correcting the damaged components. By in-depth investigation of these damages, the root of many cultural and social, and even economic problems would be clearly seen among Iranians. Problems such as social anxiety, depression, emotional poverty, cultural problems, leading a luxurious life and dissatisfaction with the status quo, marital conflicts and family problems, can be recognized by reflection on the imbalance within the functions of self-development sources [2].

Psychologists have mentioned various sources regarding self-development and formation, based on which, self develops and forms in humans. Schoneman [3,4], by reviewing various studies and research on self, mentions three main

sources for self-development: 1– Self-observation 2– Social comparison 3–social feedbacks. This psychologist believes that employing each of these sources is based on the demand of various stages of development. Logically, these three sources are the only sources for self-development, and no more is expected. Using these sources, not only is different from one person to another, but it is also quite different among each population and community. Practically, each society may be different from other societies regarding the priority and the level of using these 3 sources [3,4].

Results of the present research would be applicable in both theoretical and practical levels. In the theoretical level the findings support the self- development sources theory of Schoneman [3,4] and somehow other contemporary psychologists' [5-9]. In the practical level, by referring to current findings of the self-knowledge sources scale, this scale can be used in psychosocial adjustment of many people including therapeutic and clinical, personal, interpersonal and social settings particularly couple relations programs [10]. It is necessary, in pre marriage counselling, the sources of self-knowledge of couples to be measured because one of the main factor of conflicts among couples to refer to their differences in their sources of self-knowledge [11].

It has been more than three decades that self-knowledge sources have been included in psychology research and various researches have been conducted on them in many countries. However, they are rarely introduced and addressed in researches conducted in Iran, and this is in spite of the fact that, according to its unique nature, the self-knowledge source construct can initiate an extant range of research on the related fields and can help better understanding of learning. Currently, there is no scale or tool for operationalizing the self-knowledge sources in Iran. Developing and

validating an appropriate tool that can evaluate the level of employing the concepts of self-knowledge sources theory among individuals may evaluate the application of self-knowledge sources theory in human relations. The self-knowledge sources scale aims to add a new dimension to the existing knowledge in the self-knowledge theory. Since no standard tool has been currently developed for evaluating three concepts of self-knowledge sources theory (self-observation, social comparison, and social feedback), and according to the certain necessity of using a standard tool for such objective, the present research aimed to develop an appropriate, standard, reliable and valid tool for measuring self-knowledge sources. Hence, by operationalizing this theory, this can be used in clinical interventions, marriage counseling, personal diagnosis and therapy, increasing self-esteem, reducing psychological damages, and also future research on this field. This study set out to develop and validate the self-knowledge sources questionnaire for Iranian people.

2. METHODOLOGY

The presented study is of *ex post facto* research design, and the data gathering method is through surveys. The population of the current research included all the men and women residing in Tehran city who visit local parks in their pastime in 2016. The sample size was decided to include 800 individuals, who were selected by stratified sampling method from the parks located in 5 districts of Tehran (north, south, center, west, and east). First, the districts of Tehran were divided into 5 classes (north, south, center, west, and east) based on geographical locations, and then, the sample (800 individuals) were assigned into classes equally (equal proportion); the share of each class was considered to be 160 individuals, and finally, the samples were selected from each class with simple random method, and the questionnaires were distributed among the desired population through which the data were gathered.

The inclusion criteria were as follows: 1 – Male and female samples who are 20 to 60 years old (this age range constitutes majority of Iran's population and the problems related to old age as well as the problems related to adolescence and incomplete formation of personality traits and characteristics [12] are not seen in this age range). In addition, the 20 to 60 age range includes the active group of the population who

are involved in social relations. The minimum of education among the selected samples should be third grade of middle school 3– The individuals should be willing to precipitate in the research.

2.1 Research Tool

2.1.1 The development of sources of self-knowledge scale

First, based on the self-knowledge sources theory in articles and books by Younesi [2,13] a number of expressive statements were prepared in this regard. All the scale items were shown to the experts and by confirming the appropriateness of the content for the scale objectives (content validity), 30 items were prepared with 4-option Likert response system. The participant response included: strongly disagree (score 1), disagree (score 2), Agree (score 3), and strongly agree (score 4). Accordingly, a 30-item questionnaire was developed which sought the participants view regarding self-observation, social comparison and social feedbacks. The subscale questions of the questionnaire of self-knowledge sources are as follows:

Self-observation including questions: 1-2-6-10-12-16-17-24-27-29.

Social comparison including questions: 3-7-9-13-15-18-19-21-23-26.

Social feedbacks including questions: 4-5-8-11-14-20-22-25-28-30

2.2 Ethical Considerations

Before initiating the research, the legal permission was gained from the park authorities, and the scales were given to each of the participants in one session in all the parks, so that they respond personally to the scale. If there was any ambiguity for the participants in responding, the researcher would make it clear. Participants were informed that there is no right or wrong answer to the scale items, therefore, they, individually, had to choose the best response based on the first answer that comes to their mind. Participants were also assured that they could leave the research whenever they wanted, there was no insistence or force for participation in the research, and the names and personal information of the individuals would remain confidential.

3. RESULTS

3.1 Biographical Information of Participants

The sample included 776 men and women. It should be noted that the sample size at the start of the research was considered to be 800 individuals, among which 24 individuals dropped out of the research. The age distribution of the participants was as follows: 338 individuals (40%) were 20 to 28 years old, 246 individuals (35.3%) were 29 to 36 years, 132 individuals (17%) were 37 to 44 years, 42 individuals (5.4%) were 45 to 52 years, and 18 individuals (2.3%) were 53-60 years. The gender distribution was as follows: 553 individuals (70%) were male and 233 individuals (30%) were female. The marital status of the participants was as follows: 559 individuals (72%) were single and 217 individuals (28%) were married. The domicile of the participants was as follows: 554 individuals (70.1%) lived in Tehran and 232 individuals (29.9%) lived in other cities. The educational degree of the participants was as follows: 273 individuals (35.2%) diploma and under diploma, 314 individuals (40.5%) bachelor's degree, 169 individuals (21.8%) master's level, and 20 individuals (2.6%) PhD. The job status of the participants was as follows: 554 individuals

(70.1%) employed and 232 individuals (29.9%) unemployed.

In Table 1, number, minimum, maximum, mean, and standard deviation of the self-knowledge sources questionnaire are displayed.

As can be seen in Table 1, mean and standard deviation of the self-knowledge sources questionnaire scores are presented. Comparing the score means suggests that the social feedbacks subscale has the highest mean and the self-observation subscale have the lowest mean.

Table 2 shows the statistical indices and *t*-test results for comparing mean scores of self-observation, social comparison, and social feedbacks among men and women.

Table 2 results show that there is a significant difference between means of both male and female groups in both social comparison ($P > 0.01$) and social feedbacks ($P > 0.01$). However, there is no significant difference between the male and the female in the self-observation subscale. Also, the SIQ score of the Leven's test is greater than 0.05, which indicates the equality of the variances for both groups.

Table 1. Mean and standard deviation of the self-knowledge sources questionnaire scores

Variable	Number	Minimum	Maximum	Mean	Standard deviation
Self- knowledge sources	776	30	120	68.49	12.55
Self- observation	776	10	40	18.65	4.41
Social comparison	776	10	50	23.93	6.08
Social feedbacks	776	10	40	25.90	5.92

Table 2. Statistical indices and results of the *t*-test for comparing mean scores of self-observation, social comparison, and social feedbacks among men and women

Leven's test F	Scale sig	Scale	group	N	Mean (standard deviation)	Mean difference	<i>t</i> -test criteria	Degree of freedom	Probability y value
1.896	0.169	Self-observation	male	541	18.71 (4.55)	0.20	0.583	774	0.560
			female	235	18.51 (4.06)				
0.297	0.589	Social Comparison	male	541	23.55 (6.09)	-1.26	-2.673	774	0.008
			female	235	24.82 (5.95)				
1.055	0.305	Social feedback	male	541	25.54 (5.98)	-1.20	-2.610	774	0.009
			female	235	26.74 (5.69)				

The Cronbach's alpha for all the 30 questions was calculated to be 0.86, which shows a good internal reliability for the self-development scale. None of the scale questions were eliminated for weakness in correlation with the all questions. The split-half coefficient for the two 15-question parts of the self-development scale equals to 0.79, which shows a good internal reliability.

4. DISCUSSION

Schoneman (1981, 1984), by reviewing various studies and research on self, mentions three main sources for self-development: 1– Self-observation 2– Social comparison 3–social feedbacks [3,4].

4.1 Self-Observation

We humans scrutinize many of our aspects, and by this observation, not only do we become aware of our states, thoughts and feelings, but also we make many important changes in our selves. Many aspects of this source either function alongside other sources or function individually: for example, when we are sad or anxious or when we feel pain, we try to do something and make a change in order to alleviate the condition. Through the self-observation resource, we can control or eliminate the undesirable habits or behaviors. Using this resource, we can prevent the occurrence of a particular behavior [6,7]. By employing the self-regulation system, this source can control many of our thoughts, feelings or overall cognition [14], and through opening the metacognition, this source can be even considered as a factor in generating and maintaining many psychological disorders or their intervention [11].

4.2 Social Comparison

some researchers such as Festinger [15], believe that social comparison is an important source in the evaluation and development of self. He also believes that this source helps people decrease and control different kinds of instability in their self-evaluation. Observing the condition of others is an important informational reference for self-development which is practiced through comparing self with others. Festinger [15] believes that people prefer to evaluate themselves by straightforward, concrete, non-subjective and objective characteristics. When these characteristics do not exist, individuals tend to evaluate themselves in comparison to other people, because other people are

considered objective criteria for them. Importance of social comparison has been considered recently by many psychologists [7,9,16,17]. It is possible that one of the reasons of early use of this source among children [18] to be objectivity and tangibility [11]. In a study carried out on children, Marsh and Parker [19] found that among children, self-concept is seriously influenced by the capabilities of their peers and classmates; when a child is among peers with stronger capabilities than himself, he will gain low self-evaluation, and conversely, when he is exposed to peers with lower level of capabilities, he will gain a better self-evaluation.

4.3 Social Feedbacks

Self-concept of individuals can be formed and influenced by the social feedbacks they receive. Some researchers who believe in interpersonal interaction theory, put considerable emphasis on social feedbacks as the creator of self-concept [20-23]. These researchers assert that when the person becomes aware of others, self-awareness will occur. The term "feedback" has been used in physiology for many years, and psychology has actually borrowed the term from physiology. In physiology, part of the response can be returned to the stimulus and modify it; this process is called feedback [24]. In psychology, the view which is stated by another person about one's behaviors, actions, beliefs, social and economic status and even appearance leads to a feedback based on which we make changes in ourselves. We humans receive such feedbacks permanently in the social relationships: we accept some and reject the rest.

5. CONCLUSION

The research findings indicate that there is a significant difference between mean scores of men and women in both social comparison ($P > 0.01$) and social feedbacks ($P > 0.01$). However, there is no significant difference between men and women in self-observation. Results of the statistical analyses regarding the internal reliability of the self-knowledge sources scale show that this scale has desirable psychometric properties. Internal reliability results have been very good and the alpha value for 30 questions equals to 0.86, without eliminating any question due to weakness in correlation with the whole scale. Also, the split-half correlation for both 15-question parts of the self-knowledge sources scale was 0.79 which shows an excellent internal reliability for the self-knowledge sources scale.

It is recommended that, in future, further research on the psychometric properties of the self-knowledge sources scale in universities and clinical samples to be conducted. Carrying out such research would provide the necessary foundations for standardization of the self-knowledge sources scale as a process distinct from validation in future. Moreover, it is suggested that the correlation the scale with other psychological tests to be examined such as deterministic thinking scale and View toward Addiction scale.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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