

Development and Validation of a Farsi Version of the Positive Self Scale

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Abstract

The aims of the present study were (a) to develop a Farsi version of the Positive Self Scale (PSS), (b) to investigate the psychometric properties and to explore the factorial structure of the PSS, (c) to explore the associations of PSS scores with positive psychology variables, and (d) to explore gender-related differences. The PSS and three self-rating scales, of happiness, satisfaction with life and mental health, were administered to a sample of 487 Iranian people with opioid use disorder (PWOU). Cronbach's α was .88 for the PSS. Two factors were extracted. The major one could be labelled *Positive conduct*, and the minor one *Success and confidence*. PSS scores correlated significantly and positively with happiness, satisfaction with life and mental health scores. The sex-related difference in the PSS was not significant. The correlations with other well-being scales show that there is little differentiation, that the different aspects of subjective well-being are difficult to differentiate from each other. Overall, the PSS had good psychometric properties in the present sample from Iran. This study provides evidence for the usefulness of the Farsi PSS for assessing the positive self in the positive psychology domain.

Keywords: Positive self, Positive psychology, Subjective well-being, PSS, Validation, Iran

1 Introduction

The self construct has different meanings and uses, as identity, consciousness, and personal conception among others. Based on cognitive psychology, Kihlstrom and Klein (1994, 1997) defined the self as the mental representation of ourselves. It represents our knowledge, conceptual, and memory structures of ourselves. Neisser (1997) emphasized the priority of the perception function in the definition of self. Bruner (1997) classified the self construct into different aspects: internal, external, general, personal, hereditary, acquired, and as a product of growth and development. On the other hand, Lester (2007) has argued that the individual has a unified and whole self, which creates a sense of totality and personal continuity. The self construct is well established in psychological theory as well as in many branches of applied psychology, e.g., personality, social, and developmental psychology, as well as psychopathology.

At the psychometric level, many psychological scales and questionnaires containing the term "self" have been developed, e.g., self-esteem, self-efficacy, self-regulation, self-confidence, self-monitoring, etc. A limited number of studies were conducted to explore the associations between these scales. The majority of these previous studies explored the associations between two "self" scales (see Alanzi (1999), Jones and Crandall (1986), Lennox and Wolfe (1984), Mezo (2009), Raes et al. (2011), Rosenberg (1989), Schwarzer and Jerusalem (1995), and Schwarzer et al. (1999)). A very limited number of researches studied the associations between three "self" scales. The general result of these previous studies was the significant and positive correlations between the self questionnaires. Thus, there is a need to estimate the correlations between more than two or three self scales.

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Abdel-Khalek (2020) carried out a series of four studies on this subject. In study 1, eight questionnaires of the most frequently used self scales were selected. These scales were: self-efficacy, self-regulation, self-control, self-monitoring, self-esteem, self-confidence, self-compassion, and self-actualization (see Alanzi (1999), Jones and Crandall (1986), Lennox and Wolfe (1984), Mezo (2009), Raes et al. (2011), Rosenberg (1989), Schwarzer and Jerusalem (1995), and Schwarzer et al. (1999)). A volunteer convenience sample ($N = 470$) of college students responded to the aforementioned eight scales. Results indicated that all the Pearson correlation coefficients between the total scores on these scales were statistically significant and positive. Principal components analysis extracted one component for men and one for women, accounting for 52% and 53% of the total variance, respectively. This result may indicate a degree of duplication or redundancy among these scales.

In study 2, the aim was to explore the associations between the last mentioned eight scales and neuroticism as a basic personality dimension as assessed with the Factorial Arabic Neuroticism Scale (Abdel-Khalek (2009)). Results indicated that all correlations between the total scores on the eight scales and neuroticism were statistically significant and negative, except the correlations of neuroticism with self-monitoring in both sexes and that of neuroticism and self-actualization in women. Principal components analysis extracted a bipolar component that could be labelled *Positive self versus neuroticism* in both sexes, indicating the divergent validity of the eight scales.

The objectives of study 3 were (a) to construct the Positive Self Scale (henceforth PSS), (b) to compute its alpha reliability, and (c) to explore its factorial structure. The correlation between each item of the eight scales (79 items) and the remainder of the items was computed, as well as the principal components analysis using the 79 items. Then, two items of each of the eight scales were selected based on two criteria: (a) the highest correlation with the remainder of the items of the scales, and (b) the highest loading onto the first unrotated component. Sixteen items represent the final form of the PSS. The response alternatives ranged between 0 (No) and 3 (Always). A final principal components analysis of the correlations between the 16 items was computed. The loadings onto the first component ranged between .393 and .638 (men) and from .279 to .731 (women). The alpha reliability was .87 and .88 for men and women, respectively, indicating high internal consistency.

Study 4 sought to explore the associations of the PSS with well-being (happiness, life satisfaction, mental health) and neuroticism. Results indicated statistically significant associations of the PSS with well-being (positive) and neuroticism (negative). The correlation matrices of men and women were subjected, separately, to principal components analysis. In both sexes, only one bipolar component was extracted and labelled *Well-being versus neuroticism*. Stepwise regression showed that the main predictors of PSS scores were happiness and life satisfaction in men, and happiness and lack of neuroticism in women, indicating the possibility of using the PSS in the positive psychology domain.

2 Aims of the present study

The aims of the present study were (a) to develop a Farsi version of the Positive Self Scale (PSS), (b) to investigate the psychometric properties and to explore the factorial structure of the PSS, (c) to explore the association of PSS scores with positive psychology variables, and (d) to explore gender-related differences.

3 Methods

3.1 Participants

Using a cross-sectional design, a sample of 487 Iranian people with opioid use disorder (PWOUS) ($M_{age} = 30.88$, $SD = 10.83$; 75.6% male) from opioid agonist drugs maintenance treatment (OAT) centres participated in the study. The participants were recruited by a convenience sampling method. They were provided with information regarding the nature and aim of the study, including the number and type of questions/content of the research. In the questionnaire forms, the first question was "According to the

above explanation, do you agree to participate in the study?" The scales completed by all the subjects who responded "Yes" to this question were included in the study. This study protected participants' confidentiality.

3.2 Measures

The Positive Self Scale (PSS)

The PSS was developed originally in Arabic by Abdel-Khalek (2020, 2021) with Egyptian university students but now has an English version. The PSS consists of 16 items, two from each of the following eight self scales: self-efficacy, self-regulation, self-control, self-monitoring, self-esteem, self-confidence, self-compassion, and self-actualization. Response alternatives were as follows: 0 (No), 1 (Some), 2 (Much), and 3 (Always). Cronbach's alpha reliabilities of the PSS were high ($\alpha = .85$).

The Self-Rating Scale of Happiness

The Self-Rating Scale of Satisfaction with Life

The Self-Rating Scale of Mental Health

These scales are three separate single-item questions: *To what degree do you feel happy in general*, *To what degree do you feel satisfied with your life in general?*, and *What is your estimation of your mental health in general?* These questions were followed by a scale of 11 numbers from 0 to 10. The participants were requested (a) to respond according to their global estimation and general feeling (and not their present states), (b) to know that zero is the minimum and 10 is the maximum score, and (c) to circle a number which seems to them to accurately describe their actual feeling. A high score indicates a high trait level. The one-week test-retest reliabilities of the three self-rating scales ranged between .77 and .87, indicating high temporal stability and corroborating the trait-like nature of the scores (Abdel-Khalek, 2006; Abdel-Khalek & Lester, 2017, 2018).

3.3 Procedure

In the present study, first, the Arabic version of the PSS was translated into the Farsi language by four bilingual native Iranian, Farsi-speaking individuals. Second, this version was back-translated into Arabic by another person who was a native Arabic speaker (a Lebanese general physician) (Brislin, 1970, 1980; International Test Commission, 2001). Finally, the Farsi version of the PSS was compared to its English version, and differences in the three versions were resolved. The PSS and the well-being self-rating scales were administered to a sample of Iranian PWOUS at the OAT maintenance treatment centres. The respondents were recruited by a convenience sampling method. Informed consent was obtained from participants in accordance with the Declaration of Helsinki. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

3.4 Data analysis

The data were analyzed with descriptive statistics, Pearson correlation coefficients, and principal components analysis (PCA) with a varimax rotation, using SPSS, Inc. (2009) version 26. Eigenvalues greater than or equal to 1.0 as well as the scree test were used to determine the number of factors to be retained. Factor loadings $> .5$ were considered adequate.

Table 1: Means (*M*), standard deviations (*SD*), item-total correlations, and Cronbach's α of the Farsi version of the Positive Self Scale (PSS).

Positive Self Scale (PSS) Items	Mean (SD)	<i>r</i> with total score
1. I can solve most problems if I invest the necessary effort.	2.07 (0.69)	.59
2. I can usually handle whatever comes my way.	1.71 (0.69)	.62
3. I can concentrate on one activity for a long time, if necessary.	1.71 (0.75)	.49
4. I stay focused on my goal and don't allow anything to distract me from my plan.	1.90 (0.78)	.62
5. I pay close attention to my thoughts when I am working on solving a hard problem.	1.89 (0.73)	.59
6. I get myself through hard things by planning to enjoy myself afterwards.	1.54 (0.81)	.54
7. Once I know what the situation calls for, it is easy for me to regulate my actions accordingly.	1.94 (0.77)	.61
8. I have found that I can adjust my behaviour to meet the requirements of any situation I find myself in.	1.88 (0.76)	.63
9. All in all, I am inclined to feel that I am a successful person.	2.13 (0.73)	.57
10. I have a positive attitude toward myself.	2.09 (0.77)	.74
11. I trust in my ability to make decisions.	2.01 (0.73)	.68
12. I am sure that I can obtain the confidence and respect of others.	2.12 (0.72)	.59
13. When I am going through a very hard time, I give myself the caring and tenderness I need.	1.65 (0.81)	.66
14. When something upsets me I try to keep my emotions in balance.	1.67 (0.79)	.62
15. I have a mission in life to which I feel especially dedicated.	1.62 (0.86)	.63
16. I am loved because I give love.	2.01 (0.85)	.50
Total score	29.98 (7.39)	
Cronbach's α	.88	

Note. All item-total correlations are statistically significant at the .01 level.

4 Results

The mean of the total scores on the Farsi version of the PSS was 30.0 ($SD = 7.4$). The item-total correlations for the PSS ranged from .49 to .74 (all statistically significant at the .01 level). Cronbach's α was .88 (see Table 1).

For the PSS, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .927. Bartlett's Test of Sphericity chi-square was 2344.581 ($df = 120$, $p < .001$). The PSS is a bi-factorial scale. Two salient components were extracted for the PSS and could be labelled: *Positive conduct*, and *Success and confidence*. Together, these accounted for 43.71% of the total variance (See Table 2 and Figure 1).

The correlations between the PSS and the three self-rating scales of happiness, satisfaction with life and mental health were statistically significant and positive (.51, .51, and .52, all significant at the .01 level) (See Table 3). The sex-related difference in the PSS was not significant.

Table 2: Factor loadings for the Farsi version of the Positive Self Scale (PSS)

(PSS) Items	Component 1	Component 2
2. I can usually handle whatever comes my way.	0.68	.18
3. I can concentrate on one activity for a long time, if necessary.	0.66	-.03
7. Once I know what the situation calls for, it is easy for me to regulate my actions accordingly.	0.59	.25
6. I get myself through hard things by planning to enjoy myself afterwards.	0.58	.13
4. I stay focused on my goal and don't allow anything to distract me from my plan.	0.56	.29
8. I have found that I can adjust my behaviour to meet the requirements of any situation I find myself in.	0.56	.33
15. I have a mission in life to which I feel especially dedicated.	0.51	.36
1. I can solve most problems if I invest the necessary effort.	0.51	.34
13. When I am going through a very hard time, I give myself the caring and tenderness I need.	0.50	.43
14. When something upsets me I try to keep my emotions in balance.	0.49	.37
5. I pay close attention to my thoughts when I am working on solving a hard problem.	0.46	.39
10. I have a positive attitude toward myself.	0.38	.69
12. I am sure that I can obtain the confidence and respect of others.	0.19	.68
16. I am loved because I give love.	0.04	.67
9. All in all, I am inclined to feel that I am a successful person.	0.19	.65
11. I trust in my ability to make decisions.	0.42	.59
Eigenvalue	5.91	1.08
% of variance	23.88	19.83
% of total variance	43.71	

Note. Factor 1 (items 1, 2, 3, 4, 5, 6, 7, 8, 13, 14, and 15): *Positive conduct*. Factor 2 (items 9, 10, 11, 12, and 16): *Success and confidence*.

Table 3: Means (*M*), standard deviations (*SD*), and correlations of the Positive Self Scale (PSS) with self-rating scales.

Self-Rating Scales	<i>M</i> (<i>SD</i>)	<i>r</i> with the PSS
Happiness	6.96 (2.06)	0.51
Satisfaction with life	7.15 (2.34)	0.51
Mental health	7.28 (2.27)	0.52

Note. All correlations are statistically significant at the .01 level (2-tailed).

5 Discussion

The alpha reliability of the Farsi version of the PSS was .88, indicating high internal consistency. Based on different authors (Furr, 2011; Kline, 2000; Nunnally & Bernstein, 1994) a reliability of .7 is a minimum for a good test. Our α reliability of .88 is very near to the α reliability in a recent Egyptian study ($\alpha = .85$; (Rashid, 2021)). Because of our hypothesis that the PSS measures an important construct in positive psychology, the associations between the PSS and well-being would be a validity indicator. In the present investigation, the correlations of PSS with the self-rating scales of happiness, life satisfaction, and mental health all were statistically significant and positive (.51, .51, and .52), indicating good criterion-related validity (See Table 3).

Principal components analysis extracted two components that could be labelled: *Positive conduct* and *Success and confidence* (see Table 2). The first component is more individualistic. It can be argued that perhaps the second component captures the social aspects of the self-image: respect, love, positive

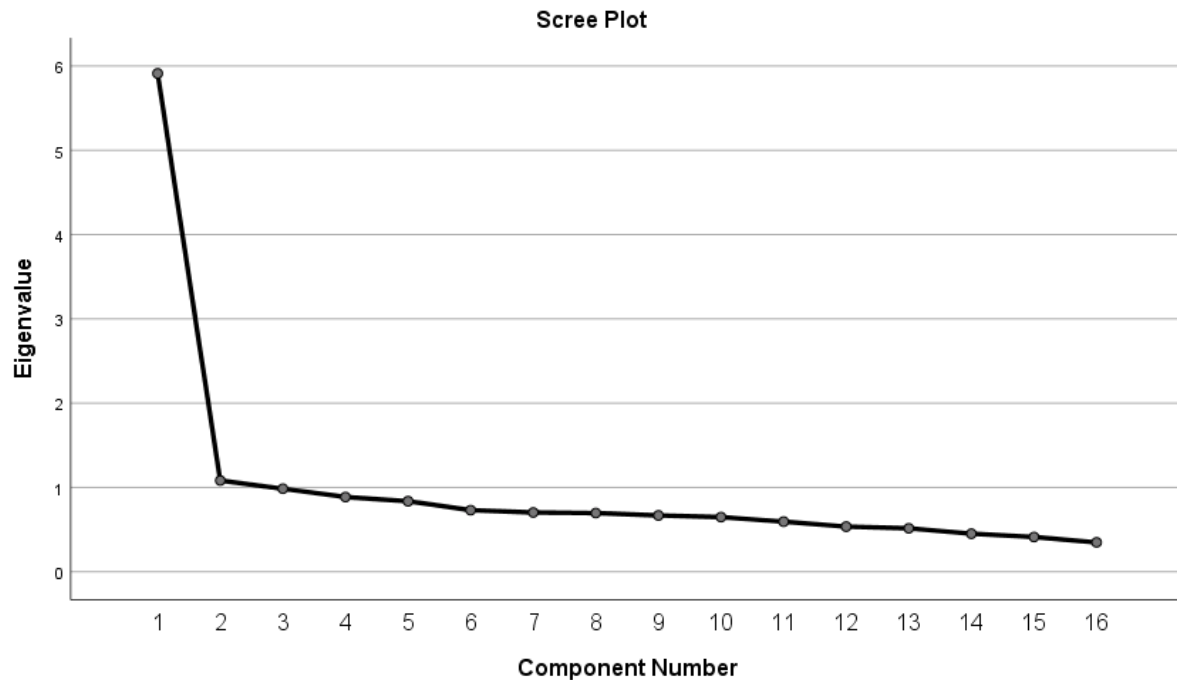


Figure 1: Scree plot of the Positive Self Scale (PSS)

attitude (items 10, 12, and 16), and positive comparison with others (items 10, and 11). However, Figure 1 indicates a one-dimensional scale and one main dimension of positive self. Therefore, our second principal component can be seen as a residual without much meaning.

The sex-related difference in the total scores on the PSS was not significant, consistent with an Egyptian study (Rashid, 2021).

The total mean score on the PSS among the Iranian sample was lower than that in Egyptian college students. However, the participants from Egypt were younger than the present sample from Iran. Furthermore, the Egyptian sample was nonclinical, whereas the Iranian sample was clinical. It is likely that social desirability has more effect in nonclinical than in clinical samples. Both Egypt and Iran are Muslim countries. Religious denomination in Egypt is Sunni Islam, and in Iran it is Shia Islam.

The PSS was significantly and positively associated with self-rating scales of happiness, life satisfaction and mental health, which were used as measures of well-being (See Table 3). Therefore, it is recommended to use the PSS as a positive psychology variable. The PSS would be a suitable summary of several "self" scales. Furthermore, the PSS may be used to assess the effectiveness of psychotherapeutic interventions and could be applied to outcome studies (p.42; Abdel-Khalek, 2020). Also, its correlations with other well-being scales show that there is little differentiation, that the different aspects of subjective well-being cannot easily be differentiated from each other.

6 Limitations

The present study had some limitations. It is based on a convenience Iranian clinical sample. This is a cross-sectional design. Notwithstanding the significant and positive associations between the PSS and the well-being self-rating scales, there is no other similar measure to be used as indicator to confirm theoretical consistency (construct validity, or criterion-related validity). The various self scales from which the PSS scale was constructed can all be used as criterion, although the intercorrelations among these source scales would be more informative about the nature of the construct. Beyond this, any positive psychology scale can be used. These limitations could be mentioned as possibilities for improvement in future work. It is part of the bigger question about the internal structure of positive mental health and happiness if there is

any, considering the high correlations among all well-being scales.

7 Conclusions

The PSS had good psychometric properties in the present sample from Iran. This study provides evidence for the usefulness of the Farsi version for assessing the positive self in an Iranian clinical sample. A proposed next step would be to explore the age differences in positive self, as well as to study the performance of different normal and abnormal groups on the PSS. These are projects for the future.

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