Subjective well-being and its sub-scales among students: The study of role of creativity and self-efficacy

Mohammad Reza Tamannaefar*, Mahshad Motaghedifard

Department of Psychology, Faculty of Human Sciences, University of Kashan, Kashan 87317-51167, Iran

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A B S T R A C T

The aim of this study was to investigate the subjective well-being and its sub-scales among students: the study of role of creativity and self-efficacy. The sample of the study consisted of 355 university students (176 female/179 male) from University of Kashan who were selected based on stratified sampling proportional to population volume. The study method was of descriptive – correlational type. To assess creativity, Creativity Questionnaire (1994), to assess the self-efficacy, general self-efficacy scale (1982) and to assess subjective well-being and its sub-scales, subjective well-being questionnaire (2003) was used. Significant tests and analysis of data were performed by SPSS 18 software using regression analysis stepwise. The results showed that there was a significant relation between the creativity and subjective, emotional, psychological and social well-being. Also self-efficacy and subjective well-being and its dimensions were significantly related. Regression analysis results demonstrated the predictive capability of subjective well-being through the creativity and self-efficacy. Given to the significant relationship between subjective well-being and creativity and self-efficacy, findings have important implications for improving students' subjective well-being by strengthening self-efficacy and optimizing creativity occurring conditions.

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1. Introduction

Well-being is a subject that has occupied thinkers' minds for centuries and recently has been the focal point of numerous branches of psychology including positive psychology (Aghababaei & Farahani, 2011).

Subjective well-being (SWB) is one of the most attractive fields in modern psychology. A sudden increase of interest for studying this phenomenon has especially been expressed in the last 10 years, from establishing positive psychology as a scientific discipline (Seligman & Csikszentmihalyi, 2000; Snyder & Lopez, 2002) and recognizing the significance of SWB on the level of an individual and the society as a whole (Diener & Seligman, 2004; Veenhoven, 2004).

The SWB is defined as the personal assessment and perception of their quality of life (including the quality of their social, psychological and emotional interactions) (George, 2000) and provides growth of balance and human health and paves a way to develop her talent more accurately and extensively (Peyvastegar, Dastjerdi, & Dehshiri, 2010). SWB includes important principles that can be identified through the impact of emotions on all aspects of human behavior and progress (including physical and mental health, education and skills development, social competence and creating positive social relationships) (Bridges, Margie, & Zaff, 2002). This concept has cognitive and emotional components. Cognitive aspect includes individuals’ cognitive appraisal of life satisfaction and emotional aspect includes enjoying the most positive affect and the least
negative affect (Eid & Larson, 2008). According to Keyes and Magyar-Moe (2003) classification there are three sub-scales for SWB: emotional, psychological and social. The World Federation defines emotional well-being as “a form of subjective well being, when individuals feel that they are coping, fairly in control of their lives, able to face challenges, and take on responsibility” (Funk, Drew, Freeman, & Faydi, 2010). Ryff (1995) defines psychological well-being as “striving for perfection in order to prove true potentials of individual”. In this point of view, well-being means the effort for enhancement and transcendence that flourish in establishment of personal potentials and talents. Factors of psychological well-being are consisted of following items: autonomy, environmental mastery, positive relations with others, purpose in life, personal growth, and self-acceptance (Ryff, 1989). Keyes (1998) proposes that well-being has a social foundation, and offers the following definition: ‘Social well- being is the appraisal of one’s circumstance and function in society’ (p. 122). Social well-being is composed of the following five elements: social integration, social acceptance, social contribution, social actualization and social coherence.

One of the variables that are associated with individuals’ SWB is creativity (Collins, 2006; McLellan, Galton, Steward, & Page, 2012). Creativity is a complex phenomenon that prompted researchers to create varying definitions (Matuga, 2004). In core of these definitions is often the notion that creativity enables a person the production of novel and useful ideas (Runco, 2004). Torrance and Goff (1986) with classification of Creativity writes: This skill is concisely composed of four main factors, fluidity (talent to produce many ideas), elaboration (talent of attending to detail), and originality (talent to produce new, unusual and fresh ideas), flexibility (talent to produce different ideas or ways). Many studies have shown that happy mood simplifies the ability to think to solve problems in new ways and negative affect prevents the ability of flexible thinking (Gasper, 2003). The positive emotion broadens people’s attention, makes them aware of broader social and physical environment and makes people more creative than usual situations (Carr, 2003). It is noteworthy that positive emotions come from new insights so that Sternberg (1988) proposes personal satisfaction and probably happiness of others as the result of creative thinking. Newton (2013) argued emotions can make a difference to thought. Based on Greaves and Farbus’s (2006) research development and encouragement of creative activities increase well-being and positive changes in elderly health. Collins (2006) argues that the creativity predicts positive effect, physical health, psychological adjustment, and vivacity. In Bostic’s opinion (2003) creativity also has the power of such prediction. In a meta-analysis of 60 experimental and 10 non-experimental studies, results have shown that positive mood enhances creativity (Davis, 2009). Baas and colleagues (2008) in a meta-analysis of 102 studies concluded that positive mood causes more creativity than the neutral mood. Maltz (1984) believes that by the help of creative thinking we contribute to joy and it provides means to reduce hardships and difficulties of life.

Self-efficacy is another variable that is closely related to the well-being (Bhupinder & Rakhi, 2009; Datu, 2012). This concept was developed by Bandura. Self-efficacy is “the belief in one’s capabilities to organize and execute the courses of action required to manage prospective situations.” In other words, self-efficacy is a person’s belief in his or her ability to succeed in a particular situation. Bandura described these beliefs as determinants of how people think, behave, and feel (Bandura, 1994).

About direct impact of self-efficacy believes on emotional experiences, Bandura (1997) believes that these beliefs effect emotional experiences through thoughts, actions, or emotions orientation. People with low self-efficacy may believe that accidents and incidents are harder than what they really are, and this will lead to increased stress and anxiety. High self-efficacy is related, for example, to the regulation of the stress process, to higher self-esteem, better well-being, better physical condition, better adaptation to and recovery from acute and chronic diseases (Bandura, 1997; Bisschop, Kngsman, Beekman, & Deeg, 2004).

In fact, high sense of self-efficacy improved personal health, ability to perform the duties and tasks in various ways. People, who are confident in their abilities, consider difficult tasks as challenges that must be conquered. Instead of seeing them threatening and avoiding them, they choose challenging goals and remain firmly committed to fulfill them. They are confident in their ability to harness the potential threats, to adapt well with the conditions and to experience less anxiety and depression and greater psychological well-being (Argyle & Lu, 1990). Also, in this case, Raggi, Leonardi, Mantegazza, Casale, and Fioravanti (2010) showed that having a sense of control over events and high self-efficacy leads to higher levels of psychological well-being and life satisfaction.

2. Research questions

I. Is there significant relation between the creativity and SWB and its sub-scales?
II. Is there significant relation between the self-efficacy and SWB and its sub-scales?
III. Which is more effective to predict of SWB: creativity or self-efficacy?

3. Method

3.1. Population and sample

This research was a descriptive – correlational study. Statistical population consisted of all students from University of Kashan, Iran, who were from four faculties, including Human Sciences, Engineering, Architecture, and Art & Basic Sciences. Participants selected from the academic year 2012–2013. Research sample included 355 students (176 female (49.6%), and
Table 1
Mean and standard deviation of variables.

<table>
<thead>
<tr>
<th></th>
<th>Subjective</th>
<th>Emotional</th>
<th>Psychological</th>
<th>Social</th>
<th>Creativity</th>
<th>Fluidity</th>
<th>Originality</th>
<th>Flexibility</th>
<th>Elaboration</th>
<th>Self-efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>151.87</td>
<td>30.56</td>
<td>57.69</td>
<td>63.60</td>
<td>130.79</td>
<td>34.89</td>
<td>47.58</td>
<td>22.99</td>
<td>25.32</td>
<td>43.04</td>
</tr>
<tr>
<td>SD</td>
<td>19.91</td>
<td>8.41</td>
<td>14.64</td>
<td>11.77</td>
<td>15.25</td>
<td>4.81</td>
<td>7.03</td>
<td>3.75</td>
<td>3.51</td>
<td>8.73</td>
</tr>
</tbody>
</table>

Table 2
Correlation matrix of creativity, its components, self-efficacy, SWB and its dimensions.

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Creativity</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 – Fluidity</td>
<td>0.75**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 – Originality</td>
<td>0.88**</td>
<td>0.52**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 – Flexibility</td>
<td>0.77**</td>
<td>0.42**</td>
<td>0.61**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 – Elaboration</td>
<td>0.69**</td>
<td>0.41**</td>
<td>0.46**</td>
<td>0.49**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 – Self-efficacy</td>
<td>0.34**</td>
<td>0.31**</td>
<td>0.29**</td>
<td>0.24**</td>
<td>0.24**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 – Subjective well-being</td>
<td>0.30**</td>
<td>0.27**</td>
<td>0.26**</td>
<td>0.19**</td>
<td>0.22**</td>
<td>0.11**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 – Emotional well-being</td>
<td>–0.10**</td>
<td>–0.07**</td>
<td>–0.12**</td>
<td>–0.10**</td>
<td>0.00</td>
<td>0.40**</td>
<td>0.37**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 – Psychological well-being</td>
<td>0.16**</td>
<td>0.15**</td>
<td>0.14**</td>
<td>0.08</td>
<td>0.13**</td>
<td>0.27**</td>
<td>0.83</td>
<td>0.27**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>10 – Social well-being</td>
<td>0.38**</td>
<td>0.31**</td>
<td>0.35**</td>
<td>0.30**</td>
<td>0.22**</td>
<td>0.44**</td>
<td>0.38**</td>
<td>0.43**</td>
<td>–0.02**</td>
<td>1</td>
</tr>
</tbody>
</table>

*p < 0.05.
**p < 0.01.

179 male (50.4%) and their average age was 23.78 years) who selected by stratified sampling method proportionate with population volume.

3.2. Research tools

Subjective well-being questionnaire: The questionnaire was designed by Keyes and Magyar-Moe (2003) that includes three sub-scales: emotional well-being (12 items), psychological well-being (18 items) and social well-being (15 questions). Questionnaire was performed and validated on 57 subjects by Golestani Bakh (2007). The correlation of SWB questionnaire with happiness questionnaire of Lyubomirsky and Lepper (1999) was 0.78 and its sub-scales including emotional well-being, psychological well-being and social well-being were respectively, 0.76, 0.64 and 0.76. Internal consistency of the questionnaire based on Cronbach’s alpha coefficient was 0.80 and its sub-scales were respectively 0.86, 0.80 and 0.61.

Creativity Questionnaire: The questionnaire was designed by O’Neil, Abedi, and Spielberger (1994) in Iran that consisted of 60 questions and measured four components of creativity (fluidity, flexibility, originality and elaboration). O’Neil et al. assessed reliability of the test using Cronbach’s alpha. The obtained coefficients for the four fluidity, flexibility, originality and elaboration components were respectively 0.75, 0.67, 0.61 and 0.61. They by using confirmatory factor analysis revealed that the construct validity is acceptable. Concurrent validity of this questionnaire and other tests (Torrance Tests of Creative Thinking and Villa Auzmendi Creativity Test) and other measures is between 0.30 and 0.54.

General self-efficacy scale: This 17-point scale was developed by Sherer et al. (1982). The Cronbach’s alpha was 0.76 and the score on this scale was based on Likert’s five-scale. Bahadori Khosroshahi and Hashemi-Nosrat Abad (2012) reported the Cronbach’s alpha of 0.81 for this scale in their study.

4. Results

In order to analyze the data, descriptive and inferential statistics were used. Descriptive statistics included means and standard deviations of the variables and in inferential statistics, the Pearson’s correlation and stepwise regression analysis were used. Table 1 shows the participants’ descriptive statistics of all variables.

Moreover, correlation matrix of SWB and its sub-scales with elements of creativity and self-efficacy presented in Table 2. There was a significant positive relationship between creativity and SWB, psychological and social well-being. But it should be noted that there is a negative relationship between the overall creativity and emotional well-being. Also a significant and positive correlation was observed between self-efficacy and SWB and its sub-scales.

The stepwise regression analysis is shown in Table 3. The aim was prediction of SWB based on creativity and its components and self-efficacy. As shown in model 1 in Table 3, components of creativity are removed from the model because these

Table 3
Results of stepwise regression analysis to predict SWB based on creativity and its components and self-efficacy – model summary.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>R² adjusted</th>
<th>Std. error of the estimated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.30</td>
<td>0.09</td>
<td>0.09</td>
<td>18.98</td>
</tr>
<tr>
<td>2</td>
<td>0.38</td>
<td>0.14</td>
<td>0.14</td>
<td>18.43</td>
</tr>
</tbody>
</table>

Model 1: predictors: (constant), creativity. Model 2: predictors: (constant), creativity, self-efficacy.
were ineffective on the dependent variable. But the overall creativity predicted and explained 9% of changes in SWB, only \( R^2 \) adjusted = 0.09. Model 2 showed that creativity and self-efficacy together accounted for 14% of the variance in SWB; therefore the role of creativity is more than self-efficacy (\( R^2 \) adjusted = 0.14).

As seen in Table 4, the \( F \) test is significant for determining efficacy of independents variable on the SWB (\( F = 30.63 \), Sig = 0.00).

Beta value in Table 5, identified creativity was a better predictor of SWB than self-efficacy (Beta = 0.39, \( p < 0.001 \)).

### 5. Discussion

The purpose of this study was to investigate the SWB and its sub-scales among students of university of Kashan – Iran: the study of role of creativity and self-efficacy. The results of this study showed that there is a significant relationship between creativity and subjective well-being and this finding is consistent with the results of Dreu, Baas, and Nijstad (2008), Bostic (2003), Baas, Dreu, and Nijstad (2008). In fact, these studies show that people who have high SWB are more flexible and they can solve problem better and have more creativity. Franken (1994) argued people who have a positive evaluation of their experience, classify data widely and diversely. According to Vulpe and Dafinoiua (2011) research, positive emotions reduce people’s inclination to resist change and facilitate the fluency, the flexibility and the originality of their creative thinking. Unlike Wright and Walton (2003) and Collins’ (2006) research, the present study showed that there is a negative relationship between creativity and emotional well-being. To interpret this finding it should be referred to Gasper (2003) who noted those individuals who have low emotional well-being, such as sad mood, constantly revise and change their belief that such a process helps to flexible thinking. For example, when a child breaks a toy feels sad, but looks for a new way to repair it.

On the other hand, based on these findings a significant relationship between creativity and psychological well-being can be seen and it is consistent with Cart’s (2003) results. Satisfaction of life creates a power in people’s lives that causes more thought in life conditions and provide them with newer and more positive ways to look at themselves and their surrounding world. Creativity can be effective on self-acceptance, personal growth and sense of having purpose in life, environmental mastery, autonomy and positive relations with others. About the relationship between creativity and social well-being in this study, it is to be mentioned that according to Greaves and Farbus’ (2006) research, people who are not successful in their social relationships and use interpersonal controversial methods, have little flexibility in solving problems and use new insights less.

According to the existing literature it can be said that people with high level of well-being, have more holistic view of the issues surrounding them and are able to develop their ideas. But researches such as Peyvastegar et al. (2010) showed that creativity alone was not a good predictor for the well-being, therefore this study considered self-efficacy variable in interaction with it.

Based on finding of the present study, there is a significant relationship between self-efficacy and SWB and its sub-scales. Studies have proven that self-efficacy is an important source of happiness and this finding is consistent with Lenz and Shortrige_Bagget (2002), Sarracino (2010), Okun, Levy, Karoly, and Ruehlman (2009), and Bhupinder and Rakhi (2009). In justifying these findings it should be said that people who have high control feeling over their lives and have achieved to a high self-recognition and have greater confidence in their abilities, have higher health, well-being and satisfaction. According to Kashdan and Roberts (2004) and Karademas (2006) high self-efficacy expectations are associated with during times of stress, better well-being and physical health as well as low self-efficacy is associated with lower levels of subjective well-being. About the relationship between self-efficacy and social well-being Rodebaugh (2006) and Goldin et al. (2012) showed in socially anxious individuals, lower self-efficacy predicts poorer behavioral performance in speech tasks, interaction with others and have lower well-being. In summary, self-efficacy can effectively predict SWB. A finding of Salami (2008) represents a significant relationship between the self-efficacy and the happiness and well-being. Leviner and Moylan (1994) do not accept the happiness and prosperity as a simple achievement to enjoyment; in fact know it as an attempt to perfection (wholeness) that represents an individual’s self-efficacy and his true potential realization.
In the present study, the results of stepwise regression analysis showed that the creativity and self-efficacy can predict SWB which the role of creativity is more than self-efficacy. Creativity predicted 9% of changes in SWB, only. In other words, creativity was a better predictor of SWB than self-efficacy. But components of creativity were ineffective in prediction of SWB. Consonant to present study, Peyvastegar et al. (2010) reported fluidity and flexibility had this capability. Based on Khosravani’s (2005) results, originality could to predict mental health, justly. In his opinion, creativity can serve as a mediator variable. As a result, fluid or inventive mind is not enough in improvement and treatment of stressful situations in work or education. It should investigate interaction it with environmental conditions.

The most obvious limitation is about sample study. This study was about students from University of Kashan and it is not enough. Therefore to ensure appropriate generalization of the findings of the study; secondly, we did not examine other key features of students, including personality traits, academic achievement, demographic information, etc. which may be associated with student's creativity, self-efficacy and well-being. So, we suggest to investigation of cases referred in future.

6. Conclusion

Paying attention to students’ feeling of well-being and its relation to creativity and self-efficacy is essential and it has a decisive role in their success. So, this study aimed to investigate the SWB and its sub-scales among students: the study of role of creativity and self-efficacy. The inferential statistics show that there is positively relationship between creativity and self-efficacy with SWB and its dimensions among students. Therefore, feeling of satisfaction and a positive assessment of self and life can be related with new insights and creatively and self-efficacy beliefs. The orientation of people to subjective, emotional, psychological and social well-being is an integrated resultant of a new approach and insight (creativity) and effective beliefs and behaviors (self-efficacy).

References


