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The Psychometric Properties of an Emotional Intelligence Measure within Non-Professional Counsellors in South Africa

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This study examined the psychometric properties of the Emotional Intelligence Scale (SEIS) (Schutte et al., 1998) in a sample of non-professional counsellors in South Africa. The counsellors (N = 172) were employed within various counselling services, rehabilitation services, and trauma centres. The analysis reflected the factorial solution and internal consistency of the SEIS. The results indicated a two-factor solution for the SEIS (Emotion Appraisal and Emotion Utilisation). Both of the subscales showed moderately high internal consistency reliability indices.

Keywords: Emotional Intelligence, counsellors, emotions, Schutte Emotional Intelligence Scale

South African counsellors are faced with various stressors, including a diverse multi-cultural society, as well as information and global economic circumstances (Orlepp & Friedman, 2002; Peltzer, Tabane, Matsese, & Simbayi, 2010). Apart from this, levels of criminal violence in South Africa have increased exponentially and counsellors aim to assist clients in coming to terms with involvement in violence (Blair, 1991; O'Brien, Daffern, Meng Chu & Thomas, 2013). Counsellors recognize that the world is changing rapidly, simply from problems that clients are bringing to the counselling encounter. Increasingly, counsellors are being called upon to assist survivors of violent crime, natural disasters, childhood abuse and people living with HIV Aids (Maree, Dreyer-White, & Makua, 2013; Seedat, Van Niekerk, Jewkes, Suffla, & Ratele, 2009).

Non-professional or lay counsellors provide the first level of community based counseling in many South African localities mainly due to the high number of HIV cases and HIV counselling of crime victims. Counsellors thus typically work with people who are under stress or who are distressed. But counselling them can in itself be a highly stressful activity and counsellors are by no means immune to pressure (McManus, Winder, & Gordon, 2002; Vawda, 2008).

Counsellors are better able to manage stress if they have the ability to perceive and manage emotions in the self and others (Martins, Ramalho & Morin, 2010; Schneider, Lyons, & Khazon, 2013). An advantage that emotional intelligence brings to the counselling profession is that the presence of high levels of emotional intelligence may be crucial in helping them work with people from a range of cultural backgrounds (Lin, Chen, & Song, 2012). In this study the abbreviation EI will refer to emotional intelligence.

As an individual quality, EI has been found to be positively correlated with variables such as coping, well-being and professional performance (Por, Barriball, Fitzpatrick, & Roberts, 2011). Therefore the measurement of EI becomes imperative in the counselling profession.

The first scales under the name “emotional intelligence” date to 1990, with more substantial EI scales being those employing multiple tasks and sophisticated scoring (Mayer, Perkins, Caruso, & Salovey, 2001). Two such tests, the Multi-factor Emotional Intelligence Scale (MEIS) and the companion adolescent version (MEIS-A), (Mayer et al., 1999) are among the more popular scales used in practice.

However a number of researchers have used the Schutte Emotional Intelligence Scale (SEIS) in EI research (Carmeli & Josman, 2006; Dimitriades, 2007; Tapia & Marsh, 2006) due to the availability and brevity of the scale. More evidence on its psychometric properties for the non-counsellor profession in Southern Africa is needed.

Schutte Emotional Intelligence Scale (SEIS)

Schutte et al. (1998) developed and validated a self-report scale within the trait EI framework that allegedly measures a homogeneous construct of EI. Schutte et al. (1998) used a principal components analysis followed by a varimax rotation to analyse an original pool of 62 items. Four principal components were extracted and subsequently rotated orthogonally to a simple structure (Schutte et al., 1998).

The SEIS (Schutte et al., 1998) comprises of 33 items, three of which (5, 28, and 33) are reverse- scored, and which load on one factor, with the total variance explained by 17.4%. Participants reply on a Likert scale and a total score is derived by summing up the item responses (Petrides & Furnham, 2000). Internal consistency reliabilities in the validation sample indicated a cronbach alpha value of 0.87 and a test-retest reliability coefficient of 0.78 was computed (Schutte et al., 1998).

The 33 items of the final version of the test ostensibly came from all three subcategories of Salovey and Mayer’s (1990) original EI model (Petrides & Furnham, 2000). The 33-item scale showed good internal reliability with two different sam-
The SEIS is reported to have good discriminant validity and the measure also showed evidence of predictive validity, where college students' EI scores predicted their end-of-the-year grade average (Schutte et al., 1998). The Schutte Emotional Intelligence Scale (Schutte et al., 1998) assesses perception, understanding, expression, regulation and harnessing of emotion in the self and others.

The brevity of the scale and its accumulating reliability and validity evidence makes this scale a reasonable choice for those who are seeking a brief self-report measure of global EI (Schutte et al., 1998). The model of EI of Salovey and Mayer (1990) provides the conceptual foundation of the items used in this scale. Potential uses of this scale involve exploring the nature of EI, including the determinants of EI, the effects of EI and whether EI can be enhanced (Schutte et al., 1998).

International research on the Schutte emotional intelligence scale indicated the following: Petrides and Furnham (2001) identified a four-factor solution explaining 40.4% of the total variance. Petrides and Furnham’s (2001) four-factor structure matched the factor solution of Saklofske, Austin and Minski (2003) who identified a one-factor solution that explained 23% of the total variance and a four-factor solution explaining 40% of the variance. Both Petrides and Furnham (2001) and Saklofske et al. (2003) labelled the factors: optimism/mood regulation, appraisal of emotions, social skills and utilisation of emotions. Differences in item loadings and classifications were found in the four-factor structure imitated by Ciarrochi, Deane and Anderson (2002).

In South Africa only two studies regarding the psychometric properties of the 33 item scale of the SEIS has been done. Van der Merwe (2005) found a five-factor structure explaining 50.04% of the total variance in a nursing sample. The five factor structure of Van der Merwe (2005) was labelled: positive state, own emotions, negative emotions, emotions of others and emotional management. Jonker and Vosloo (2008) found a six-factor solution in a university student sample that explained 45.25% of the total variance and which was labelled: positive affect, emotion-others, happy emotions, emotions-own, non-verbal emotions and emotional management.

**Study Objectives**

The objective of this study was to investigate the psychometric properties of the SEIS in a South African setting. The first specific goal was to establish the factor structure of the SEIS in sample of non-professional counsellors and the second to determine the reliability of the SEIS.

**Method**

**Research Design and Participants**

A cross-sectional survey design was used to collect data and attain the research goals. A convenience sample of (N=172) non-professional counsellors took part in this study. The majority of them were females (78.5%) and under the age of 29. The majority of the participants was part of an African language group (for example Setswana, Sesotho and IsiZulu) (84.7%) followed by Afrikaans and English speaking non-professional counsellors.

**Instrument**

Participants completed the SEIS, which is a self-report measure of emotional intelligence (as previously discussed). It was constructed based on the emotional intelligence model of Mayer and Salovey 1990. It therefore should support four factors of emotional intelligence namely Optimism, Social Skills, Emotional Regulation and Utilization of Emotions. The SEIS is scored on a 5-point Likert scale. Sample items are: “I know why my emotions change” and “I have control over my emotions”. Schutte et al. (1998) found the SEIS to be overall internally consistent (0.90) based on a one-factor solution.

**Data Analysis**

The statistical analysis was carried out with the SPSS programme (SPSS, 2003). Principal factor rotation was performed on the measuring instrument to determine the factor structure. The eigenvalues and scree plot were studied to determine the number of factors underlying the specific measuring instrument. Descriptive statistics (e.g., means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data. Cronbach alpha coefficients were inspected to determine the internal consistency, homogeneity and uni-dimensionality of the measuring instrument.

**Results**

Following a principal component analysis (with a varimax rotation), investigation of the eigen values (larger than 1), and inspection of the scree plot, two factors were extracted, explaining 27.67% of the total variance (see Table 1).

The two factors accounted for 27.67% of the total variance in explained. Variables were reasonably well-defined by this factor solution. The first factor was labelled Emotion Appraisal and is explained as the expression of emotion such as being aware of non-verbal messages people send, sharing emotions with others, knowing when to express personal emotions and complimenting others when they have done something well.

The second factor was labelled Emotion Utilisation related to using emotions, such as expecting good things to happen, coming up with new ideas when in a good mood, recognising and controlling emotions.

Next, the descriptive statistics and alpha coefficients of the two factors of the SEIS are presented in Table 2.

Table 2 indicates that acceptable cronbach alpha coefficients for the two factors of EI namely Emotional Appraisal ($\alpha = 0.81$) and Emotion Utilisation ($\alpha = 0.77$) were obtained. Skewness and kurtosis measures indicated that the data were normally distributed.

**Discussion**

The aim of this study was to investigate the psychometric properties of the SEIS for non-professional counsellors in South Africa. A simple factor analysis was conducted on the 33 items of the SEIS to determine the factor structure. The two factors were labelled: Emotion Appraisal ($\alpha = 0.81$) and Emotion Utilisation ($\alpha = 0.77$) resulted. These alpha coefficients compared reasonably well with the uni-dimensional factor of Schutte et al. (1998) (0.90). Although it is lower than the finding of Schutte et al. (1998) it is still acceptable and reflects internal consistency of two factors and not only one.

The findings also corresponded with the factors of a number of international researchers (Petrides & Furnham, 2001; Saklofske et al., 2003; Salovey & Mayer, 1990). The reasons for the factor structure might be explained by the unknown qualities by the unique sample of lay-counsellors. Reflecting back to the
Table 1

Factor Loadings, Communalities (h²), Percentage and Covariance for Principal Factor Extraction and Varimax Rotation on SEIS Items

<table>
<thead>
<tr>
<th>Item</th>
<th>F1</th>
<th>F2</th>
<th>h²</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. When I am faced with obstacles, I remember times I faced similar obstacles and overcame them</td>
<td>0.68</td>
<td>0.00</td>
<td>0.39</td>
</tr>
<tr>
<td>1. I know when to speak about my personal problems to others</td>
<td>0.57</td>
<td>0.00</td>
<td>0.40</td>
</tr>
<tr>
<td>6. Some of the major events of my life have led me to re-evaluate what is important and not important</td>
<td>0.52</td>
<td>0.00</td>
<td>0.23</td>
</tr>
<tr>
<td>25. I am aware of non-verbal messages other people send</td>
<td>0.52</td>
<td>0.00</td>
<td>0.32</td>
</tr>
<tr>
<td>24. I compliment others when they have done something well</td>
<td>0.52</td>
<td>0.00</td>
<td>0.36</td>
</tr>
<tr>
<td>14. I seek out activities that make me happy</td>
<td>0.49</td>
<td>0.00</td>
<td>0.29</td>
</tr>
<tr>
<td>19. I know why my emotions change</td>
<td>0.46</td>
<td>0.00</td>
<td>0.26</td>
</tr>
<tr>
<td>12. When I experience a positive emotion, I know how to make it last</td>
<td>0.46</td>
<td>0.00</td>
<td>0.24</td>
</tr>
<tr>
<td>23. I motivate myself by imagining a good outcome to tasks I take on</td>
<td>0.43</td>
<td>-0.30</td>
<td>0.39</td>
</tr>
<tr>
<td>15. I am aware of the non-verbal massages I send to others</td>
<td>0.42</td>
<td>0.00</td>
<td>0.23</td>
</tr>
<tr>
<td>18. By looking at their facial expressions, I recognise the emotions people are experiencing</td>
<td>0.40</td>
<td>0.00</td>
<td>0.19</td>
</tr>
<tr>
<td>9. I am aware of my emotions as I experience them</td>
<td>0.39</td>
<td>0.00</td>
<td>0.20</td>
</tr>
<tr>
<td>28. When I am faced with a challenge, I give up because I believe I will fail</td>
<td>0.36</td>
<td>0.00</td>
<td>0.11</td>
</tr>
<tr>
<td>11. I like to share my emotions with others</td>
<td>0.34</td>
<td>0.00</td>
<td>0.19</td>
</tr>
<tr>
<td>3. I expect that I will do well on most things I try</td>
<td>0.31</td>
<td>0.00</td>
<td>0.25</td>
</tr>
<tr>
<td>4. Other people find it easy to confide in me</td>
<td>0.30</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>27. When I feel a change in emotions, I tend to come up with new ideas</td>
<td>0.00</td>
<td>-0.65</td>
<td>0.38</td>
</tr>
<tr>
<td>26. When another person tells me about an important event in his/her life, I almost feel as though I have experienced this event myself</td>
<td>0.00</td>
<td>-0.55</td>
<td>0.33</td>
</tr>
<tr>
<td>31. I use good moods to help myself keep trying in the face of obstacles</td>
<td>0.00</td>
<td>-0.46</td>
<td>0.35</td>
</tr>
<tr>
<td>17. When I am in a positive mood, solving problems is easy for me</td>
<td>0.00</td>
<td>-0.44</td>
<td>0.25</td>
</tr>
<tr>
<td>10. I expect good things to happen</td>
<td>0.00</td>
<td>-0.41</td>
<td>0.20</td>
</tr>
<tr>
<td>20. When I am in a positive mood, I am able to come up with new ideas</td>
<td>0.00</td>
<td>-0.40</td>
<td>0.20</td>
</tr>
<tr>
<td>30. I help other people feel better when they are down</td>
<td>0.00</td>
<td>-0.40</td>
<td>0.27</td>
</tr>
<tr>
<td>21. I have control over my emotions</td>
<td>0.00</td>
<td>-0.37</td>
<td>0.23</td>
</tr>
<tr>
<td>22. I easily recognise my emotions as I experience them</td>
<td>0.00</td>
<td>-0.37</td>
<td>0.25</td>
</tr>
<tr>
<td>16. I present myself in a way that makes a good impression on others</td>
<td>0.00</td>
<td>-0.36</td>
<td>0.27</td>
</tr>
<tr>
<td>32. I can tell how people are feeling by listening to the tone of their voice</td>
<td>0.00</td>
<td>-0.33</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Variance explained 21.50%  6.15%

Note. F₁ Emotion Appraisal, F₂ Emotion Utilisation; Items in bold are indicative of the factor structure.

Table 2

Descriptive Statistics and Alpha Coefficients of the Measuring Instruments

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion Appraisal</td>
<td>75.74</td>
<td>11.12</td>
<td>-0.76</td>
<td>0.92</td>
<td>0.81</td>
</tr>
<tr>
<td>Emotion Utilisation</td>
<td>52.70</td>
<td>7.97</td>
<td>-0.74</td>
<td>0.94</td>
<td>0.77</td>
</tr>
</tbody>
</table>
uni-dimensional factor found by Schutte et al. (1998) the findings suggest emotional intelligence to encompass more than just a single factor. This might be interpreted do to the fact that non-professional counsellors are more inclined to use their emotions (Emotion Utilisation) and appraise the emotions of others in the counselling setting (Emotion Appraisal). The influence of context and language on the experience and measurement of EI for future studies are recommended.

References


