The impact of emotional labor towards professional identity among psychological counsellors in China
Huixian Zhao, Mi Li, Lin Li*
Graduate School, Lyceum of the Philippines University, Manila City 1002, Philippines
* Corresponding author: Lin Li, lin.li@lpu.edu.ph

ABSTRACT

Background: Professional identity is an important personal resource at work, especially for psychological counsellors who deal with various issues related to the mental health of their clients. However, up to date there are limited studies concerning emotional labor and professional identity among psychological counsellors. Therefore, the emotional labor strategies used by counsellors to preserve their mental health and attain professional identity is worthy to be examined. Methods: This study adopted a cross-sectional survey-based approach in which 180 respondents were asked to complete a survey. Further analyses were carried out via SPSS and Lisel version 8.7. Results: In this study it is apparent that emotional diversity has a significant relationship towards professional identity. Conclusions: This study has proved that three dimensions of emotional labour (emotional diversity, expression rules and deep acting) does have a positively significant relationship towards the total scores of professional identities.

Keywords: emotional labor; professional identity; psychological counsellors; psychology counseling graduate; mental health

1. Introduction

Globally, work and studies related stress has become an issue of concern. Therefore, over the past decade there is a growing need for psychological counsellors as more people require counselling[1]. According to the international health organization, one psychologist is required for every 1000 people to ensure a mentally and emotionally balanced and healthy society. From this perspective, China requires about 1.3 million professional psychologists, but sadly there is a short supply of psychologists[2]. Generally, psychological counselling can be described as a combination of science and art because it functions to service people with fresh ideas after exploring patients’ inner thoughts[3].

To ensure their approach and ideas are relevant, psychological counsellors are required to undergo rigorous and continuous updating and studying to cope with emerging changes in time[4]. Additionally, it ensures that they maintain professional knowledge and expertise which enables them to provide optimal psychological services to their patients. Moreover, to bear their day-to-day workload, counsellors should have a clear mind and a positive attitude to ensure their mental health and professionalism is preserved[2].

According to Li et al.[1], the maintenance and development of a strong professional identity is an important...
basis for judging counsellors’ professionalism and distinguishing them from others. Furthermore, professional identity is very important for people in all industries. This is because, only by agreeing with the work that they are engaged in whole heartedly can people devote themselves with enthusiasm and energy, maximize their potential, and finally realize their personal value and achieve self-realization. Thus, there has been much debate pertaining the importance of counsellors’ mental health and professional identity prior to dealing with patients in recent years[4]. Nonetheless, sadly there is limited research on how the emotional condition of counsellors affects their professional identity.

2. Materials and methods

2.1. Emotional labour

The sociologist Hochschild[5] was the first scholar who proposed the emotional labour concept, she mentioned that emotional labour refers to the process by which workers are expected to manage their feelings in accordance with organizationally defined rules and guidelines. Additionally, through reviewing past literatures, it can be concluded that emotional labour includes two basic dimensions: emotional labour strategies and emotional labour requirements. Emotional labour strategies encompass surface acting and deep acting but emotional labour requirements encompass emotional diversity and expression rules.

Surface acting means that individuals can achieve the emotional performance required by the organization by adjusting externally observable emotional expressions such as a smile, words of approval, and accepted body language[6]. It can also be called reaction-centered emotional labour, which is just a superficial emotional change. For example, when counsellors encounter clients who have contradicting values against their own values, it may be difficult for them to accept. However, they have to show understanding and empathy to ensure that they are fulfilling their job requirements and possess a professional identity as psychological counsellors without judgement or biasness[7].

Next, deep acting refers to adjustments undertaken by counsellors to ensure emotional expression consistency as required by the organization. This is done by changing the inner feelings of counsellors to be in line with the expected external job performance for professional identity. Gross[8] identified several different ways of emotional adjustment: Situational adjustment, attentional mobilization and cognitive change. Situational adjustment is achieved by changing the environment, such as changing occupations. Next, attention mobilization refers to the purpose of inner balance and emotional adjustment by focusing on emotional events that can mobilize an individual’s performance. Finally, cognitive change is to reduce the emotional response by reinterpreting the situation, such as reinterpreting work events as a stimulus. The result of the change in feeling is often the ability to express the emotions required by the organization more sincerely, easily and naturally.

Moreover, the American Psychological Association[9] confirmed that expression rules in emotional labour are positively related to job satisfaction among self-growth help employees (psychological counsellors). Similarly, Gibbons et al.[10] also established that expression diversity in emotional labour has a positive relationship with good individual mental health. However, the manner of both expression rules and expression diversity in emotional labour has not been adopted by most psychological counsellors, especially those without a degree or certification of their own work[11]. Also, Brotheridge and Lee[12] identified that expression rules and expression diversity can predict the effectiveness of professional identity. Therefore, this study aims to identify the effect of emotional labour (surface acting, deep acting, expression rules, and expression diversity) towards professional identity.

The consequences of emotional labor are mainly reflected in individuals and organizations aspects. Li
Mingjun[13] explored the factors influencing emotional labor, he mentioned that professional identity plays an important role in positive emotional expression, and individuals’ understanding of their own occupational role will directly affect their communication with their conversation partners and the emotional labor strategies they adopt. Morris et al. [14] found that emotional incoordination would cause fatigue and reduce job satisfaction; the longer the emotional work lasts, the more the role needs to be internalized. The influence of the outcome variables of emotional labor mainly focuses on job burnout, job satisfaction and stress in China[15].

There are many empirical studies on emotional labor in China, but the existing studies mainly focus on teachers, doctors, police and other occupation groups. At present, there is still little exploration of emotional labor of psychological counsellors, and the impact of emotional labor on professional identity of psychological counsellors has rarely been paid attention to. Psychological counseling is destined to be an industry with high emotional labor intensity due to its work content and nature. The author intends to make full use of investigation resources to further explore the relationship between emotional labor and professional identity, and study the factors affecting the career development of psychological counsellors in a broader scope, so as to provide a strong theoretical basis for the career research of psychological counsellors and to promote the development of psychological counsellors in China.

2.2. Professional identity

Professional identity is an important part of self-development and self-identity, and it is related to the process of an individual’s search for acknowledgement when selecting an occupation[16]. It also encompasses how individuals in the professional field exhibit commitment to oneself and the society at large[17]. The progression of professional identity occurs throughout an individual’s career development process. Additionally, it refers to the recognition of social values associated with the professional work that individuals are engaged in and the level of competence associated with the profession[18]. Santivasi et al.[19] believe that professional identity does not solely refer to the influence of society, but also to the individual’s experience and personal background. This study explains professional identity as an individual’s affirmative evaluation of a specialized occupation. Furthermore, it expresses the importance of professional identity as a personal resource for a professional individual’s self-identity.

According to Cybernetics, professional identity is involved in both input and output processes. In terms of input, that is, individual perception and understanding of emotional expression rules, a higher sense of professional identity helps employees better understand and use the organization’s emotional expression rules, and reduces the difference between self-perception and expression rules. In terms of output, that is, in the process of individual emotion regulation, the higher the degree of professional identity of employees, the more they can use deeper behavioral strategies to regulate their feelings and convey the emotions expected by the organization[20].

From the psychological counsellor perspective, Xu[21] believes that professional identity reflects the level of identification with the counselling profession which includes the counsellor’s likes, beliefs, and appreciation for their profession. Also, noteworthy is if the counsellor voluntarily chose to be a counsellor and is willing to provide high levels of commitment to their profession. Cruikshanks and Burns[22] defined a counsellor’s professional identity as their sense of connection which integrates the important content and values of counselling psychology.

A past study by Hellman and Cinnamon[23] among psychological counsellors was conducted to identify their understanding of professional identity, and they identified four stages of professional identity and development, namely, exploration, establishment, maintenance, and specialization. Given the particularity of counselling, the integration of complex theoretical knowledge and personal qualities to form a working alliance.
with clients is insufficient because it generally requires personal experience and supervision\[^17\]. Therefore, to become a qualified consulting professional, one needs to have professional knowledge and the exercise of relevant practical activities to pass a certain quantitative test before obtaining a qualification certificate\[^19\].

Furthermore, it is essential to ensure that the consultant has sufficient professional ability to be competent when carrying out consultation. This is to warrant a consultant’s professional efficacy and promote the realization of professional identity\[^24\]. In addition, regular personal experience can also be beneficial to enhance the professional identity of the consultant. The completion of these inward explorations, such as supervision and self-experience, will help to truly improve the professional significance of consultants. Moreover, consultants will gradually recognize themselves as qualified professional workers, resulting in higher professional significance towards their professional identity\[^22\].

Next, consultants should have a sense of belonging to an association or organization to promote positive professional emotions and expectations because it is a powerful tool to assist counsellors in forming professional identity\[^19\]. In organizations and associations, counsellors can share basic beliefs, norms, ethical standards, a sense of achievement, and many positive emotions, optimistic expectations and achievements with their peers. This in return establishes acceptance with the team, peer support and achieves professional expectations which creates positive professional emotions among counsellors and helps enhance their professional identity\[^25\].

Finally, the personal and professional roles of counsellors often complement and integrate with each other. The counsellors’ life events and personal thoughts sometimes affect their counselling work and professional will\[^26\]. Also, according to Sternszus et al.\[^27\], the influence of professional will on counselling work is prominent for professional identity. This is because psychological counselling is a profession that requires strong professional identity to do well. Furthermore, it is crucial to have appropriate professional will to put aside personal thoughts and provide constructive professional solutions based on a client’s needs for better professional identity\[^24\]. In view of the above-mentioned points, in this study, professional identity is portrayed as, professional knowledge, professional ability, professional significance, professional emotion, professional expectation and professional will.

2.3. Methods

This study adopted a cross-sectional survey-based approach in which respondents were asked to complete a survey. The respondents were 180 full-time psychological counsellors and postgraduate students majoring in psychological counselling who have been exposed to a number of psychology cases. In total, 180 questionnaires were distributed but only 169 questionnaires were recovered. Out of the questionnaires recovered, 12 questionnaires had incomplete answers and had many deleted answers. Therefore, overall, 157 valid questionnaires were usable for this study with an effective recovery rate is 92.90%. The descriptive statistics of sample demographic variables are shown in Table 1. The dimensions for emotional labour were adopted from Chen\[^28\] and the dimensions for professional identity were refined and tested for preliminary study using Statistical Package for the Social Sciences (SPSS in short) version 24.0. Further analyses were carried out via Lisel version 8.7.

<table>
<thead>
<tr>
<th>Sample demographic variables</th>
<th>Groups</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>46</td>
<td>29.3</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>117</td>
<td>70.7</td>
</tr>
<tr>
<td>Age</td>
<td>20-29</td>
<td>109</td>
<td>69.4</td>
</tr>
</tbody>
</table>
Table 1. (Continued).

<table>
<thead>
<tr>
<th>Sample demographic variables</th>
<th>Groups</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>30–39</td>
<td>31</td>
<td>19.7</td>
</tr>
<tr>
<td></td>
<td>40–49</td>
<td>11</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td>50 and above</td>
<td>6</td>
<td>3.8</td>
</tr>
<tr>
<td>Qualification certificate</td>
<td>None</td>
<td>50</td>
<td>31.8</td>
</tr>
<tr>
<td></td>
<td>Level 2</td>
<td>49</td>
<td>31.2</td>
</tr>
<tr>
<td></td>
<td>Level 3</td>
<td>55</td>
<td>35</td>
</tr>
<tr>
<td>Marital status</td>
<td>Married</td>
<td>53</td>
<td>33.8</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>103</td>
<td>65.6</td>
</tr>
<tr>
<td>Working location</td>
<td>School</td>
<td>130</td>
<td>82.8</td>
</tr>
<tr>
<td></td>
<td>Society</td>
<td>27</td>
<td>17.2</td>
</tr>
</tbody>
</table>

3. Results

3.1. Construct validity

The confirmatory factor analysis (CFA) was used to examine the extent to which items loaded onto their respective expected (i.e., targeted) latent factors\textsuperscript{[12]}. Goodness-of-fit indices for the current study referred to six indices: Chi-square value ($X^2$), comparative fit index (CFI), normative fit index (NFI), the root mean square error of approximation (RMSEA), goodness of fit index (GFI) and incremental fit index (IFI) which were expected to determine how closely the hypothesized six-factor professional identity model fits the data.

1) Chi-square value: Scholars generally believe that the significant level of $X^2$ should be greater than 0.1 for the model to be accepted.

2) df value: The $X^2/df$ value is usually associated with the degrees of freedom as an index to evaluate the overall fit, that is, $X^2/df$. It is generally believed that $X^2/df < 3$, indicates that the overall model fit is relatively good.

3) CFI: The value of CFI varies between 0 and 1, with 1 representing perfect fit and 0 representing poor fit. It is generally considered that CFI > 0.9 indicates that the model is acceptable.

4) NFI: Normative fit index measures the reduction in the chi-square value between the set model and the independent model. It is generally believed that NFI > 0.9 indicates that the model is acceptable, and the closer the NFI is to 1, the better the model.

5) RMSEA: RMSEA is a model adaptation indicator that has been paid more and more attention in recent years. The closer the RMSEA is to 0, the better the overall fit. It is generally believed that when RMSEA < 0.05, it is regarded as a good fit.

6) GFI: The variation interval of its value is between 0 to 1, and the closer it is to 1, the better the overall fitting degree of the model is. Usually, a GFI value of 0.9 indicates a good fit.

7) IFI: IFI refers to the incremental fit index. When its value is more than 0.9, it indicates that the model is well fitted.

From Table 2, it can be seen that the six-factor model of the psychological counsellor’s professional identity questionnaire fits the data well, and each fitting index has reached a good level. This indicated that the data supported the structural model of the questionnaire, and the six-dimensional model obtained by exploratory factor analysis was verified. Overall, CFA was conducted for the variable professional identity understudy, which resulted in six factors (professional expectation, professional will, professional emotion,
professional ability, professional significance, and professional knowledge).

Table 2. Summary of CFA loadings of six-factor professional identity model.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$X^2$</th>
<th>df</th>
<th>NFI</th>
<th>CFI</th>
<th>GFI</th>
<th>RMSEA</th>
<th>IFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional identity</td>
<td>290</td>
<td>0.29</td>
<td>0.97</td>
<td>0.93</td>
<td>0.90</td>
<td>0.032</td>
<td>0.97</td>
</tr>
</tbody>
</table>

3.2. Reliability testing

This study uses homogeneous reliability (Cronbach’s alpha) and split-half reliability two test methods to examine the questionnaire structure reliability. According to Wu[29], as a general attitude or psychological perception scale, the questionnaire with a good reliability coefficient should preferably have a reliability coefficient above 0.8 for the overall scale. Although, a scale of between 0.6 and 0.8 is an acceptable range but a scale of more than 0.7 is better. Table 3 included collected results has indicated that the reliability has been achieved.

Table 3. Testing the questionnaire for reliability.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of items</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional expectation</td>
<td>4</td>
<td>0.927</td>
</tr>
<tr>
<td>Professional will</td>
<td>4</td>
<td>0.826</td>
</tr>
<tr>
<td>Professional emotion</td>
<td>3</td>
<td>0.842</td>
</tr>
<tr>
<td>Professional ability</td>
<td>4</td>
<td>0.779</td>
</tr>
<tr>
<td>Professional significance</td>
<td>4</td>
<td>0.770</td>
</tr>
<tr>
<td>Professional knowledge</td>
<td>4</td>
<td>0.774</td>
</tr>
<tr>
<td>Expression diversity</td>
<td>4</td>
<td>0.881</td>
</tr>
<tr>
<td>Expression rules</td>
<td>5</td>
<td>0.793</td>
</tr>
<tr>
<td>Surface acting</td>
<td>5</td>
<td>0.872</td>
</tr>
<tr>
<td>Deep acting</td>
<td>5</td>
<td>0.780</td>
</tr>
</tbody>
</table>

3.3. Regression analysis

Regression analysis is necessary to test the assumptions for linear regression. These assumptions are related to the presence of linearity, heteroscedasticity, normality, multicollinearity and outliers in the data. The SPSS output produced after running the regression analysis comprise of plots and test values for analyzing the assumptions. Linear regression analysis was carried out to examine the relationship between emotional labour and professional identity. The results obtained from the regression analysis of emotional labour towards professional identity are presented in Table 3. Observing from Table 4, expression diversity displayed a highly significant relationship towards the total score of professional identity ($\beta = 0.273$, $p < 0.01$). Followed by, expression rules towards the total score of professional identity ($\beta = 0.216$, $p < 0.05$) and deep acting towards the total score of professional identity ($\beta = 0.291$, $p < 0.05$) which supported a significant relationship. Furthermore, it was noted that the total score of professional identity is negatively correlated with surface acting.

Considering that there is a correlation between independent variables, which may cause collinearity in regression analysis. This study uses variance inflation factor (VIF) as an index to diagnose collinearity in order to investigate collinearity. The results show that VIF in regression analysis is generally close to 1, indicating that the multicollinearity problem is not serious.
Table 4. Linear regression result: Effect of emotional Labour towards professional identity.

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variable (Standard beta): Professional identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression diversity</td>
<td>0.273**</td>
</tr>
<tr>
<td>Expression rules</td>
<td>0.216*</td>
</tr>
<tr>
<td>Surface acting</td>
<td>−0.128</td>
</tr>
<tr>
<td>Deep acting</td>
<td>0.291*</td>
</tr>
<tr>
<td>R^2</td>
<td>0.441</td>
</tr>
<tr>
<td>Adjusted R^2</td>
<td>0.013</td>
</tr>
<tr>
<td>Net F value</td>
<td>25.592*</td>
</tr>
</tbody>
</table>

Significant levels: *p < 0.05; **p < 0.01.

4. Discussion

As seen in Table 3, deep acting has an important relationship towards professional identity and surface acting does not have a significant relationship towards professional identity. One possible reason could be that, although from an exterior view both surface acting and deep acting can meet organizational requirements. However, the effects of the two are different[6]. Ultimately, for psychological counsellors, surface acting is more likely to damage the counsellor’s true self-experience because it focuses on ‘camouflaging’ and emphasises surface actions, such as external expressions and behavioral control[7]. Therefore, it places more pressure on the counsellor to force an emotion and expression which could ultimately cause them to lose interest in consulting and counselling, even leave the consulting job position, which reduces the professional identity. As discussed above, only by identifying with the work they are engaged in from the bottom of their hearts, people can devote themselves to their greatest enthusiasm and energy, maximize their own potential, and finally achieve personal value and self-realization. Deep acting is to make the inner real experience consistent with the emotional expression state required by the organization, so as to make the consultant’s feeling harmonious and consistent with the external performance. This adjustment method does not only require suppressing the negative emotions being experienced, showing or disguising the positive emotions required by the consulting profession, but also carries out more cognitive processing. It is necessary to feel the positive information as much as possible from the client situation, and carry out the necessary and appropriate cognitive evaluation adjustment.

On the contrary, if counsellors use deep acting strategies and focus on changing their inner experience, they are able to function better as counsellors. As we all know, psychological counseling is a dynamic process of two-way interaction between the counsellor and the help-seeker. The process of psychological counseling not only affects the help-seeker, but also may have an impact on the personal life of the counsellor. Therefore, this professional work of helping people may not only bring people a sense of accomplishment and spiritual pleasure, but also cause the counsellor to appear emotional exhaustion. When focus on changing inner experience, psychological counsellors are often more able to sincerely easily and naturally perform the emotions required by the organization, so the internal feelings and external emotional performance tend to be consistent, and the effort spent on emotional labor will not be too large. Additionally, they will be able to make an initiative internally to express the required emotions for the counselling profession more sincerely and easily[30]. Therefore, via deep acting, counsellors consume lesser emotional resources which in return enable them to identify easily with their profession and they will be more invested in their work[31]. Moreover, if the counsellor continuously uses deep acting approach, it will become an automatic response and over time the counsellor will be less emotionally disturbed when confronted with tough psychological cases.
Next, it is noteworthy that there is an important positive relationship between expression rules and professional identity. The expression rules in this study refer to the specific requirements of the psychological counselling industry or society for the expression of genuine emotions by counsellors based on the appropriate rules\(^{[10]}\). These emotional rules can be, showing sincerity, moderate enthusiasm, or empathy towards clients. The understanding, recognition, and compliance of these rules related to counselling enables counsellors to maintain a level of professional identity and ensure that they offer effective counselling to clients\(^{[11]}\). The profession of psychological consultant is a profession that communicates with the soul, especially needs love, passion and creativity. When psychological counsellors conduct counseling work, if they deliberately regulate their emotions, “disguise” their external emotional performance, and their inner true feelings contradict the requirements of the rules, it will deepen the degree of emotional exhaustion and deindividuation, and then reduce professional identity. When the psychological consultant truly expresses, they can actively regulate their own emotions, adapt to the actual emotional expression rules, and produce positive emotional interaction, so as to obtain a sense of personal achievement and improve the sense of professional identity. Genuine emotions expression generally requires less emotional resources and does not deplete emotional resources, genuine emotions expression generates positive interactions between counsellor and help-seeker, and this strategy also complements emotional resources in order to enhance the professional identity.

Finally, in this study it is apparent that emotional diversity has a significant relationship towards professional identity. Emotional diversity in this study refers to a number of emotions experienced by counsellors during counselling. Work with high emotional labor should have a wider range of interpersonal contact and emotional impact, that is, if there is no interpersonal interaction at work, emotional labor will be less. By this standard, psychologists are high-mood workers. These emotions may be due to similarities between the client’s and the counsellor’s experience\(^{[28]}\). Whereby, simultaneously counsellors may feel pity, remorse and regret which could enable counsellors to relate and counsel the client in a heartfelt manner. Additionally, counselling with a diverse set of emotions helps counsellors engage with clients better\(^{[10]}\).

5. Conclusions

This study focused on investigating the influence of emotional labour towards professional identity based on Chinese psychological counsellors current counselling practices and procedures. This study has also proved that three dimensions of emotional labour (emotional diversity, expression rules and deep acting) does have a positively significant relationship towards the total scores of professional identities. What’s more, this investigation results offer basis for practicing psychological counsellors to take advantages of applying emotional labour (emotional diversity, expression rules and deep acting) and creating interest for transformation in their counselling approach. Furthermore, by establishing emotional labour for effective and specialized counselling it in return builds the counsellor’s professional identity.

However, this study is still a cross-sectional study, and the data collection of subjects is at one point in time, lacking the support of longitudinal research. In addition, questionnaire survey is mainly used, and most studies conducted are relevant study, which cannot strictly control the influence of irrelevant variables, so that may cause the results of experimental research are not detailed and accurate. Due to the limited conditions, there is difficulty in collecting samples, the sample size of this study is too small, and the representativeness of samples may also have problems, which may affect the research results.

Future research is expected to be conducted in a broader group of counsellors, so as to more accurately reflect the professional feelings of psychological counsellors in the social and cultural background of China. At the same time, it can try to do comparative research with other occupation group such as teachers and doctors. What’s more, the problem of psychological counsellors’ emotional labor deserves further attention.
and research. In addition to comparative research with other industry practitioners, explore the characteristics of psychological counsellors’ emotional labor, how to take measures to help counsellors experience emotions consistent with their true feelings at work, maintain inner balance, reduce work pressure, and have a positive significance for counsellors’ self-care and self-growth.

**Author contributions**

Conceptualization, HZ and LL; methodology, HZ; software, ML; validation, HZ and LL; formal analysis, ML; investigation, HZ; resources, LL; data curation, ML; writing—original draft preparation, HZ; writing—review and editing, LL; visualization HZ; supervision, LL. All authors have read and agreed to the published version of the manuscript.

**Funding**

This research was partially supported by Federation of Social Science in Hainan Province China.

**Acknowledgments**

We are thankful to our colleagues, professors and friends, Jessa Frida T. Festijo, Maria Victoria M. Ac-Ac, Lin Fu, Peipei Li who provided expertise that greatly assisted the research, although they may not agree with all of the interpretations provided in this paper.

**Conflict of interest**

The authors declare no conflict of interest.

**Abbreviations**

SPSS, Statistical Package for the Social Sciences; CFA, Confirmatory Factor Analysis; CFI, Comparative Fit Index; NFI, Normative Fit Index; RMSEA, the Root Mean Square Error of Approximation; GFI, Goodness of Fit Index; IFI, Incremental Fit Index.

**References**


