

Psychometric properties of the college student subjective wellbeing questionnaire (CSSWQ) in a sample of Iranian students

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Abstract: In the field of the measurement of the psychological characteristics of students in Iran some questionnaires have been so far standardized; however, negative constructs such as depression and stress have been emphasized more by these student tools. Given the lack of tools related to the measurement of student wellbeing as well as the problems of current tools besides the lack of a proper study on this matter in Iran, this research was carried out aiming at investigating the psychometric properties of the College Student Subjective Wellbeing Questionnaire (CSSWQ) in a sample of Iranian students. This is a correlational research with the statistical population including female and male students of Shahed and Shahid Beheshti Universities in Tehran (Iran) in 2020. In this study, the convenience sampling method was employed to obtain the sample and 138 students were ultimately considered as the sample size. This tool's reliability was measured by the internal consistency (Cronbach's alpha) and splitting methods and its validity was measured by convergent and divergent methods. For the subscales and the overall scale, Cronbach's alpha coefficients were obtained above 0.70, and the correlation coefficients in the splitting method were obtained above 0.60. Moreover, the scores obtained from this tool exhibited a significant negative correlation with the scores of the negative constructs in the tools DASS, the PWI-A, and the PANAS and a significant positive correlation with their positive constructs. In the end, it was concluded that the CSSWQ has good reliability and validity in the statistical population in question.

Keywords: Student Wellbeing, Students, Anxiety, Depression

1 Introduction

Based on the definition, subjective well-being consists of a combination of emotional, social, cognitive, and behavioral elements either considered valuable for an individual's satisfaction or somehow resulting in the achievement of things bringing an individual's satisfaction, or a state including both of them (Renshaw and Bolognino, 2016).

As said, the concept of subjective well-being may play a fundamental role in the subjective and practical performance of anybody in any field. Students are not an exception; as known to everyone, students are considered as activists of the progress and development's main cores in different societies that are universities, consequently, their activities' quality and quantity are considered as a sensitive and key issue. A bunch of researches have confirmed that happy moods make it easy to think for solving problems in new ways, as their absence prevents flexible thinking (Gasper, 2003). Consequently, measuring the students' subjective well-being and analyzing its level to enhance the productivity of their individual and social work appears to be useful and of paramount importance.

In recent years, many self-report scales have been made to measure the internal and external aspects of students' well-being behaviors. College student subjective well-being questionnaire (CSSWQ) is also one of these tools. It is a 16-item self-report questionnaire to measure four student specific well-being behaviors, including academic efficiency (four items), academic satisfaction (three items), college connection (four items), and gratitude (four items) (Renshaw, 2018). These four subscales have been chosen based on four well-being behavior conventional and general indicators and their related scales - self-sufficiency (Schwarzer et al., 1997), determination (Duckworth and Quinn, 2009), life satisfaction (Diener et al., 1985), gratitude (McCullough et al., 2002) and community connection (Russell et al., 1980) – and their literature has been subsequently matched with that of the student context. These subscales have not been chosen to score all internal and external well-being behaviors of students; but they were supposed to be an example of these structures (Renshaw, 2018).

Regarding to questionnaires related to the students' psychological characteristics in Iran, questionnaires like the questionnaire of students' adaptation to college (Baker and Siryk, 1984) and the university student depression inventory (Khawaja and Bryden, 2006) have been standardized. Moreover, concerning well-being, the Personal Wellbeing Index-Adults (PWI-A) (Lau et al., 2005) has been standardized by Naeinian et al. (2017). Nevertheless, a few points about these tools are noteworthy, first, the PWI-A generally measures the well-being structure, a not entering into the subtleties of student life; thus, we cannot expected it to be as effective as a dedicated tool; secondly, the student-specific tools have concentrated more on negative constructs like depression and stress, not on positive constructs, thirdly, the category of well-being has certain subscales and any single positive construct (such as academic satisfaction or adaptability) cannot cover this category alone; hence, it is better for the researchers to be provided with a comprehensive well-being measurement tool to fully measure it.

Given the above-mentioned material, i.e. the shortage of tools related to student stress as well as the issues of the current tools besides the lack of an appropriate study in this case in Iran, the issue of this study is whether the College Student Subjective Well-being Questionnaire

(CSSWQ) has the necessary validity and reliability in the Iranian sample or not.

2 Materials and Methods

2.1. Study area

The statistical population of the present research included male and female students of Shahed and Shahid Beheshti Universities in Tehran (Iran) in 2020.

2.2. Methodology

This was a correlational research that used 138 student samples from Shahed and Shahid Beheshti Universities in Tehran, including 82 female and 56 male students. Convenience method was employed as sampling method. Furthermore, due to its special time conditions (spring 2020 and the onset of the Corona quarantine) and the closure of universities, an online questionnaire was employed for collecting the sample.

The convergent and divergent validities of this questionnaire were measured by DASS questionnaire (Lovibond and Lovibond, 1995), personal well-being index-adult (PWI-A) (Lau et al., 2005), and the Positive and Negative Affect Schedule (PANAS) (Watson et al., 1988). In addition, the internal consistency and splitting methods were utilized to measure this questionnaire's reliability.

For translating the CSSWQ questionnaire text, three translation versions from English to Persian were initially prepared. Subsequently, an expert prepared a result of was the three. That English version was then translated into Persian and the translated version of the questionnaire was ultimately prepared after the final review. At the next stage, a test consisting of four forms (questionnaires of CSSWQ, DASS-21, PWI-A and PANAS) was designed on the online Google platform (Google Form) and provided to the students through virtual groups of different classes of these universities. Besides, a number of students from each class completed it and participated in the research voluntarily. In the end, the obtained information was employed in order to calculate the CSSWQ questionnaire's reliability and validity. Reliability was calculated by the internal consistency (Cronbach's alpha and splitting) methods and validity by comparing this test's results with those of some other questionnaires (divergent and convergent validity). After implementing the questionnaire, the data analysis was conducted via SPSS software. This test's reliability was measured by the internal consistency, Cronbach's alpha, and splitting methods. Data analysis was carried out by Pearson correlation test and independent t-test.

3 Results and Discussions

Based on the results of internal consistency and splitting analysis for the CSSWQ (Table 1), the alpha coefficients for the whole questionnaire and by subscales and gender are above 0.7, i.e. the optimal value.

Moreover, the correlation coefficients in the splitting method are above 0.6, at an optimal level.

The sum of these two methods concludes that this questionnaire is a reliable tool.

Table 1. Reliability statics

	Based on	Cronbach`s alpha	Cronbach`s alpha		Correlation Between Forms	Spearman-Brown Coefficient
			Part 1	Part 2		
Sex	Females n=82	0.919	0.889	0.875	0.657	0.793
	Males n=56	0.925	0.903	0.868	0.702	0.825
	Total n=138	0.923	0.898	0.874	0.682	0.811
Subscales	Academic Satisfaction	0.880	0.648	0.865	0.816	0.899
	College gratitude	0.807	0.661	0.613	0.723	0.839
	Academic Efficacy	0.937	0.927	0.838	0.875	0.933
	School Connectedness	0.717	0.412	0.420	0.685	0.813

The following tables (2, 3, 4) investigate the results of divergent and convergent validity between the results of the CSSWQ as well as the subscales of the DASS-21 and PANAS questionnaires:

Table 2. Correlations between CSSWQ and DASS-21 subscales

Student Wellbeing	R	Stress	Anxiety	Depression
		Sig. (2-tailed)	-0.274	-0.194
		0.001	0.023	0.001

Table 3. Correlations between CSSWQ and PANAS subscales

Student Wellbeing	R	Positive Emotions	Negative Emotions
		Sig. (2-tailed)	-0.277
		0.007	0.000

Table 4. Correlations between CSSWQ and PWI-A

Student Wellbeing	R	Personal Wellbeing
		Sig. (2-tailed)
		0.001

According to Table 2, it may be concluded that although the students' subjective well-being is weak, it is inversely and significantly related to stress, anxiety, and depression. Among the DASS-21 questionnaire's scales, the overall score of the student's subjective well-being shows

the most association with depression and the least with anxiety.

Furthermore, as observed in Table 3, the students' subjective well-being score is directly associated with their positive emotions and inversely with their negative emotions, both being significant. Based on the results, the intensity of the direct association with the level of positive emotions is higher than that of the inverse association with the level of positive emotions. Of course, the correlations are not optimally high.

As Table 4 exhibits, there is a direct significant relationship between the student's subjective well-being score in CSSWQ and the general well-being score of adults in PWI-A questionnaire.

All the aforementioned reveal the suitable validity for this questionnaire.

4 Conclusion

The researcher in this research was aimed at checking the validity and reliability of the CSSWQ. To this end, the above-mentioned questionnaire along with three other questionnaires (DASS, PWI-A, and PANAS) were distributed among 138 students of Shahed and Shahid Beheshti Universities in Tehran. The questionnaire's reliability was examined by the correlation method, as well as the internal consistency method, Cronbach's alpha, and splitting methods.

In validating the revised version of CSSWQ, Renshaw (2018) employed two methods of factor structure analysis and latent variable path model (LVPM). The results of the factor structure analysis revealed that 15 items of the first version of this questionnaire plus one item added in the revised version of CSSWQ (CSSWQ-R), together forming 16 items, make four fully correlated factors named as academic satisfaction, academic efficacy, college gratitude and School connectedness factors.

To measure the questionnaire's validity, we measured its relationship with three PANAS, PWI-A, and DASS questionnaires. As expected, this questionnaire was observed to have a direct significant relationship with the PWI-A questionnaire and the subscale of positive emotions in PANAS, besides an inverse significant relationship with DASS questionnaire and the subscale of negative emotions in PANAS; hence, the CSSWQ was evaluated to be valid in the statistical population of the present research.

In this study, this questionnaire's reliability was evaluated to be optimal in a sample of Iranian students by Cronbach's alpha and splitting methods. In the sample of this research, the total score had a Cronbach's alpha of 0.92, the values of 0.88, 0.8, 0.93, and 0.71 were respectively obtained for the subscales of academic satisfaction, gratitude, academic efficiency, and college connection, showing equal reliability and even higher in some scales compared to the reliability obtained in Renshaw's and Bolognino (2016) research, in which these values were 0.8, 0.88, 0.8, 0.81 and 0.8, respectively.

In the end, the present research showed the good validity and reliability of this questionnaire in the community of Iranian students.

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Conflict of interests

The authors state that there are no conflicts of interest regarding the publication of this article.

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