The General Health Questionnaire (GHQ-12) and the Subjective Vitality Scale (VS) by Telepsychiatric services:

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Abstract: BACKGROUND AND AIMS: The objectives of this study were to test the General Health Questionnaire (GHQ-12) with 12-items and the Subjective Vitality Scale (VS) by telepsychiatric services. METHODS: A sample of 196 adults aged 20–60 years then completed both questionnaires. For statistical processing we used programs and methods by GraphPad INstat-3.05 and PASW-18. Internal consistency was assessed by Cronbach's alpha coefficient (CAC). The factor structures of the two instruments were extracted by confirmatory factor analysis (CFA) and Comparisons by Bonferroni Multiple Comparisons Test. Finally, the relationship between the two instruments was assessed by correlation analysis. RESULTS: The mean VS score was 22.4 (SD=7.4) and its internal consistency was found to be good (CAC=0.83). The mean GHQ-12 score was 17.4 (SD=8.0), and analysis showed satisfactory internal consistency (CAC=0.78). Bonferroni Multiple Comparisons Test between the GHQ-12 and the VS showed statistical significance (P<0.05) in Comparison for anxiety and depression vs. loss of confidence, statistical significance (P<0.01) for social dysfunction vs loss of confidence, all other item showed hight statistical significance (P<0.001). CONCLUSIONS: The results showed that the Serbian and Bosnian versions of the General Health Questionnaire 12-item (GHQ-12) and the Subjective Vitality Scale (VS) are reliable measures of psychological distress and vitality by telepsychiatric services.
Introduction:
The General Health Questionnaire (GHQ) was developed in England as a screening instrument to identify psychological distress in primary care settings.
It was originally designed as a 60-item instrument but several shortened versions are currently available, including the GHQ-30, the GHQ-28, the GHQ-20 and the GHQ-12. The shortest version of the questionnaire (GHQ-12) has been extensively validated and used in a number of countries and in different languages.
The Subjective Vitality Scale (VS) is a seven-item instrument that was developed by Ryan and Fredrick to measure vitality.

The concept of subjective vitality refers to the state of feeling alive and alert to having energy available to the self.
Vitality is considered an aspect of eudaimonic well-being (Ryan & Deci, 2001), as being vital and energetic is part of what it means to be fully functioning and psychologically well. Ryan and Frederick (1997) developed a scale of subjective vitality that has two versions.
“TELEPSYCHIATRIC SERVICES”
THE TERM “TELEPSYCHIATRY” REFERS TO THE USE OF TELECOMMUNICATION TECHNOLOGIES WITH THE AIM OF PROVIDING PSYCHIATRIC SERVICES FROM A DISTANCE.
Telepsychiatric services (TS) and e-mental health services primarily involve videoconferencing over high-speed (broadband) networks to enable natural interactions between patients and providers.
METHODS:
METHODS:
Extensive study included 220 subjects, but a total of 196 adults participated in the study. Using a standard translation procedure the English language versions of the two instruments (i.e. the 12-item General Health Questionnaire and the Subjective Vitality Scale) were translated into Serbian.
INSTRUMENTS:
Measures. 1. The General Health Questionnaire (GHQ-12). GHQ-12 include information over the last few weeks.

Questions: Have you recently:
1. been able to concentrate on what you’re doing?
2. lost much sleep over worry?
3. felt that you are playing a useful part in things?
4. felt capable of making decisions about things?
5. felt constantly under strain?
6. felt you couldn’t overcome your difficulties?
7. been able to enjoy your normal day to day activities?
8. been able to face up to your problems?
9. been feeling unhappy or depressed?
10. been losing confidence in yourself?
11. been thinking of yourself as a worthless person?
12. been feeling reasonably happy, all things considered?
2. The Subjective Vitality Scale (VS). Questions of Vitality Scale:
   1. I feel alive and vital.
   2. I don't feel very energetic.
   3. Sometimes I feel so alive I just want to burst.
   4. I have energy and spirit.
   5. I look forward to each new day.
   6. I nearly always feel alert and awake.
   7. I feel energized.
Statistical and Data Analyses. For statistical processing we used programs and methods by SPSS-10, GraphPad INstat-3.05 and PASW-18 statistics for Microsoft Windows.

Internal consistency was assessed by calculating Cronbach's $\alpha$ coefficient. Values of 0.70 or greater were considered satisfactory.
RESULTS
Among 220 subjects a sample of 196 adults aged 20–60 years then completed both questionnaires administered by services for telepsychiatry. The mean age of the respondents was 35.1 (SD = 6.9) years, education 10.7 ± 2.9 years, married (120) 61.2%, male (165) 84.2%.
The mean VS score was 22.4 (SD = 7.4) and its internal consistency was found to be good (Cronbach's alpha coefficient = 0.83).

Using the Likert scale, the mean GHQ-12 (range from 0 to 36), score was 17.4 (SD = 8.0) and 22.4 (SD = 7.4) for the VS (range from 6 to 36) and analysis showed satisfactory internal consistency (Cronbach's alpha coefficient = 0.78).
These findings indicate that at least 50% of the respondents reported less stress and showed high vitality. As expected, there was a strong and significant negative correlation between the GHQ-12 and the VS \((r =-0.71, P < 0.001)\).
Factor analysis and internal consistency.

1. The Subjective Vitality Scale (VS).
   The internal consistency of the questionnaire was measured using Cronbach's alpha coefficient and was found to be 0.83, well above the threshold for a satisfactory value.

2. The General Health Questionnaire (GHQ-12). The internal consistency of the questionnaire was measured using Cronbach's alpha coefficient.
This coefficient was found to be 0.78 for the unidimensional model, while for the two-factor and three-factor models the alpha values were found to be: Anxiety/depression, 0.84; Social dysfunction, 0.76; and Loss of confidence, 0.81.

Also, we tested the three factors identified by Graetz ("anxiety and depression", "social dysfunction" and "loss of confidence")

Analysis showed that the model was highly consistent with our data.
Correlation and Multiple Comparisons between the GHQ-12 and the VS.
The correlation between the GHQ-12 and the VS scores was investigated and as expected a significant negative correlation emerged \( (r=-0.71, P< 0.01) \), and Bonferroni Multiple Comparisons Test indicating that those who were more distressed showed lower levels of subjective vitality.
DISCUSSION
This paper reports data from a validation study of the 12-item GHQ in Serbian and Bosnian population by telepsychiatric services.
In general, the findings showed satisfactory results and were comparable with most research findings throughout the world.


Our results by Bonferroni Multiple Comparisons Test between the GHQ-12 and the VS showed that three factors could be identified (i.e. anxiety/depression, social dysfunction and loss of confidence).
The findings from the present study showed that the Serbian and Bosnian version of the GHQ-12 is a valid measure of psychological distress, but the questionnaire has a different factor structure from that in the original language.
Conclusion
The findings suggest that the Serbian and Bosnian version of the GHQ-12 is a reliable and valid instrument for measuring minor psychological distress in people and has a good factor structure.
In addition, the results show that it has good psychometric properties in terms of internal consistency and factor structure. Finally, as expected, the relationship between the two instruments was significantly negative, lending support to their convergent validity.
THE END