

# INTERPERSONAL SUPPORT EVALUATION LIST (ISEL) – COLLEGE VERSION: VALIDATION AND APPLICATION IN A GREEK SAMPLE

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## ABSTRACT

**Objectives:** a) To validate the Interpersonal Support Evaluation List (ISEL) – college version in a Greek population sample and b) To test the hypothesis that students scoring high on the ISEL present stronger resistance to stressful experiences and fewer psychological or physical problems.

**Design:** Rating scale assessment and analytical cross-sectional study.

**Method:** The ISEL was translated into Greek and then back-translated into English. A random sample of 145 students of the Faculty of Medicine completed: a) the translated version of the ISEL, b) the Symptom Check List 90-R (SCL-90-R), c) the Scale of Stressful Life Events (SSLE) and d) a questionnaire about physical health problems. Comparisons were conducted between the scores on the ISEL and the scores on the other measures. Correlations were also calculated between the scores on the Global Severity Index (GSI) of the SCL-90-R and SSLE, separately for students with high, fair and low social support, in order to assess the protective role of social support. The test–retest reliability and the internal consistency of the ISEL were also investigated.

**Results:** The students with a lower score in social support reported more psychological and somatic symptoms. The students with a higher score in social support were protected against the harmful effect of stressful events. The ISEL presents good internal consistency (Cronbach's alpha: 0.452–0.752) and test–retest reliability (intraclass correlation coefficient 0.97).

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researcher whose first language was English and who spoke Greek fluently. The study team compared the translations and before shaping the final text the Greek translation was discussed at a focus group of 12 students. Changes were proposed in order to make some items more explicit and adapt them to the conditions of student life in Greece. The suggestions from the group were used to produce the version of the scale used in this study.

Next, 200 anonymous files, containing the final version of the ISEL and the other measures used in this study, were distributed to students attending the Faculty of Medicine, 4th–6th years, at a provincial university of Greece with a total of about 300 registered students. The distribution of the files took place just before the beginning of tutorial courses on pre-arranged dates. The students who were present were invited to participate in a study aiming to examine their social and psychological characteristics. Their participation would be optional and anonymous. Out of 200 students provided with the files, 145 returned them duly completed. The mean age of those who completed the questionnaires was 22.50 years (SD: 1.92) and there were no significant age or gender differences between this group and those who did not return the questionnaires or those who were not invited to take part.

In order to estimate test–retest reliability, about three months later the same students who had completed the questionnaires were approached. Of these 42 completed the same measures again. With the use of a coding number, each second file was paired to the first one completed by the same participant without affecting anonymity.

## Measures

The participants had to complete the following tests along with the ISEL:

### Procedure – statistics

The mean and standard deviations of the ISEL scores of the sample were calculated. Cross-sectional comparisons were conducted concerning gender (t-test) and monthly income (< 1,000 euros, 1,000–2,500 euros, > 2,500 euros) of the students' families (ANOVA).

the ISEL and the GSI (Tangible: -0.

Table 3  
Correlations between the scores on the ISEL and the scores on the SCL-90-R

SCL-90-R	Tangible r	Belonging r	Appraisal r	Self-esteem r	Total score r
Somatization	-0.040	-0.142	-0.249**	-0.217**	-0.223**
Obsessive-compulsive	-0.212*	-0.293***	-0.406***	-0.377***	-0.404***
Interpersonal sensitivity	-0.231**	-0.309***	-0.426***	-0.412***	-0.443***
Depression	-0.279**	-0.419***	-0.531***	-0.480***	-0.543***
Anxiety	-0.238**	-0.288***	-0.440***	-0.385***	-0.431***
Hostility	-0.176*	-0.130	-0.275**	-0.221**	-0.248**
Phobic anxiety	-0.213*	-0.236**	-0.333**	-0.251**	-0.329***
Paranoid ideation	-0.202*	-0.204*	-0.299***	-0.0098	-0.253**
Psychoticism	-0.279***	-0.320***	-0.435***	-0.384***	-0.470***
Global Severity Index	-0.246**	-0.328***	-0.467***	-0.405***	-0.465***

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

Table 4  
Correlations between the number of stressful life events and the GSI of SCL-90-R for students with relatively high (ISEL > 41), fair (ISEL 31–41) or low (ISEL < 31) perceived social support

Students	Stressful events mean (SD)	SCL-90-R (GSI) mean (SD)	Correlations r (p)
(ISEL > 41) ( 36)	3.00 (2.00)	0.39 (0.30)	0.131 (0.447)
(ISEL 31–41) ( 69)	3.43 (2.39)	0.67 (0.54)	0.408 (0.000)
(ISEL < 31) ( 39)	3.95 (2.81)	1.02 (0.59)	0.569 (0.000)

(Cronbach's alpha) and between 0.631 (Tangible) and 0.847 (Belonging) for test-retest reliability (ICCs).

The correlations between the total score on the ISEL and each of its subscales ranged between 0.753 and 0.839, but the inter-subscale correlations were substantially lower between 0.403 and 0.625.

## DISCUSSION

Results of this study indicate that a strong negative association exists between physical or psychological problems and perceived social support. This finding is in accordance with the confirmed properties of the original measure, and provides support for the validity of the Greek translation. Psychopathological dimensions that specifically predispose subjects towards social conflicts or isolation (such as depression, psychoticism, interpersonal sensitivity) are found to present the strongest negative correlations with social support, but

pathological problems do not present significant correlation with tangible support. Consequent to these specific findings, one needs to be cautious in interpreting our results as evidence of a causal role of perceived social support in mental and physical health. Reverse causality is also plausible: psychological characteristics and somatic problems may influence social interactions, either decreasing them (e.g., in the case of depression) or increasing some of them (e.g., the existence of active somatic symptoms may attract social support and counterbalance other contrary effects of poor health on social relations). Further research is needed in order to test these hypotheses.

In the present study a relationship between a recent common cold infection and social support has not been found. However, other studies have reported that the diversity of social ties may be a protecting factor against such infections (Cohen *et al.*, 1997), either because they urge engagement in sound health practices (Umberson, 1987), or because they decrease stress and increase immune system functioning (Herbert & Cohen, 1993). A probable explanation of our finding is that during the crucial time period, there was a common cold epidemic, so relatively isolated students had a better chance of not being infected, regardless of their unhealthy habits or their immune system conditions.

Some of our results are compatible with the stress-buffering hypothesis that perceived availability of support partly protects one from life stress (Cohen & Hoberman, 1983; Henderson *et al.*, 1980; Wilcox, 1981). Since, in our study, only the subgroup containing the quarter of students with relatively higher available support is found to be psychologically unaffected by stressful events, it is possible that the harmful results of stress are counterbalanced only if perceived social support lies above a crucial threshold. It is possible that students above this threshold are protected against stress not only by the directly beneficial effect of their social support but also because self-confidence and optimism are traits of their personality. These traits may be the common reason for high scoring on the ISEL and successfully coping with stressful events. Other studies have come to a partly different conclusion, and stress the importance of social isolation in causing health problems (House *et al.*, 1982). According to this approach, different levels of support above the isolation threshold are of minor importance as far as physical or mental health status is concerned.

The internal consistency of the scale as a whole and its subscales was very good. The results in the present study are quite similar to the ones reported in the original presentation of the ISEL (Cohen *et al.*, 1985).

The test-retest reliability was good. It is worth noting that in the present study there was a relatively long period of 3–4 months between the two administrations of the measure. It is reasonable to suppose that some real changes in available support had occurred during this period, especially with regard to the subscales of tangible support and self-esteem.

There are some additional limitations in the present study. The sample is composed of students coming from one faculty of a provincial university. Almost all of them live away from their parental families. It is possible that students living with their families, as it is the case for many students in large cities, may present some differences in their social support profile. Moreover, the investigation of the relation between social support and physical health was based on subjective, retrospective reports. Subjective symptoms, such as headaches, may often represent a psychological rather than a physical problem.

However, the results indicate that the ISEL in its Greek translation is a valid and reliable instrument for measuring important aspects of social support among students. Thus the use



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