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ORIGINAL ARTICLE

Self-Stigma, Public-Stigma and Attitudes towards Professional Psychological Help: Psychometric Properties of the Greek Version of Three Relevant Questionnaires

Georgios Efstathiou [1] • Elli Kouvaraki [1] • George Ploubidis [2] • Anastasia Kalantzi-Azizi [1]

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Abstract

People are often reluctant to seek psychological help, mainly because they perceive help-seeking as a potential threat to their self-esteem. There is a need for cross-culturally valid instruments to assess attitudes, public- and self- stigma, which seem to play a critical role in seeking mental health treatment. We examined the factor structure, internal consistency, test-retest reliability, as well as the construct, criterion and discriminant validity of the Greek version of three questionnaires – the Attitudes towards Seeking Professional Psychological Help Scale-Short Form (ATSPPH-SF; Fischer and Farina 1995); the Stigma Scale for Receiving Psychological Help (SSRPH; Komiya et al. 2000); and the Self stigma of Seeking Help Scale (SSOSH; Vogel et al. 2006) – in accordance with the original studies. EFA was used to explore the factor structure of the questionnaires in a sample of 1381 Greek University students. The resulting models were subjected to CFA to further test the latent structures. The data showed acceptable model fit for all three questionnaires. The internal consistency of the ATSPPH-SF was $\alpha = .76$ and the 1-month test-retest reliability was .89 ($N = 35$). The internal consistency of the SSOSH and the SSRPH were $\alpha = .77$ and $\alpha = .69$, respectively. The discriminant and criterion validity of the SSOSH were satisfactory. Men reported higher SSRPH, SSOSH and ATSPPH scores than women. These differences remained significant after controlling for age. This study offers evidence to suggest that the Greek versions of the three questionnaires have acceptable psychometric properties. The data support the suitability and usefulness of the Greek versions of the three scales for assessing self-stigma, public-stigma and attitudes towards seeking psychological help. Compared with men, women perceived less public-stigma and self-stigma, and more favorable attitudes to seeking psychological help.

Keywords Self-stigma · Public-stigma · Psychological help · Greek culture

✉ Elli Kouvaraki
ellikiak@windowslive.com

Extended author information available on the last page of the article

Introduction

Despite the fact that the quality and effectiveness of mental health treatments and services have greatly improved, a lot of people who might benefit from psychological treatments choose not to obtain them (Andrews et al. 2001; Corrigan 2004), or they show poor adherence to prescribed services (Kessler et al. 2001; Stefl and Prosperi 1985). Specifically, research from large-scale epidemiological studies has suggested that 50 to 60% of people who would benefit from treatment do not seek it (Kessler et al. 2001; Regier et al. 1993).

Stigma is among the various reasons why people do not seek help. Stigma is a complex construct with four social-cognitive processes - cues, stereotypes, prejudice, and discrimination - that can manifest as public-stigma and self-stigma (Corrigan 2004). Briefly, there are four cues that can produce stigmatizing reactions from the general public: psychiatric symptoms, social skills deficits, physical appearance, and labels (e.g., clinical diagnoses) (Corrigan 2000; Penn and Martin 1998). Several studies suggest labeling as the greatest single cue that leads to stigmatizing responses (Jones et al. 1984; Link 1987; Scheff 1974), with labels leading to stigma in two ways. People can obtain labels from others (e.g., a diagnosis from a psychiatrist) or labels can be obtained by association (being seen coming out of a mental health service).

People may avoid the stigma of mental illness because of the potential effects of stigma on one's sense of self (Corrigan 1998; Holmes and River 1998). The stigma that exists in society (i.e., public-stigma) helps generate and perpetuate self-stigma. With regard to professional psychological help-seeking, self-stigma comprises the awareness of stereotype, endorsement of it, and applying it to one's self (Link 1987; Link and Phelan 2001). As a result of this process, the individual experiences a reduction of his/her internalized self-concept, self-esteem and self-efficacy (a person's confidence in his/her abilities to successfully manage specific situations) caused by self-labeling as someone who is socially unworthy or unacceptable (Corrigan et al. 2009). The negative attributes associated with mental ill-health, and the negative stereotypes commonly associated with different diagnoses, influence the way in which individuals with mental health problems are viewed.

According to the first systematic review of mental illness stigma prevalence within the Greek culture (Tzouvara et al. 2016), such stigma was consistently identified in moderate and high proportions, particularly in terms of social discrimination and restrictiveness, social distance and authoritarianism. There is a paucity of documented questionnaires translated in Greek concerning self-stigma, social-stigma, and attitudes towards seeking professional psychological help, with these concepts seeming to be associated with the intention to seek mental health treatment (Vogel et al. 2006). Therefore, it is very important to have psychological instruments that measure factors that play such a critical role in professional psychological help-seeking.

The purpose of the present study was to examine the validity, reliability and factor structure of the Greek version of three key questionnaires: the Stigma Scale for Receiving Psychological Help (SSRPH; Komiya et al. 2000), the Attitudes toward Seeking Professional Psychological Help Scale-Short Form (ATSPPH-SF; Fischer and Farina 1995) and the Self-stigma of Seeking Help Scale (SSOSH; Vogel et al. 2006). The SSRPH assesses the individual's awareness of how stigmatizing it is to receive psychological help (Komiya et al. 2000). The scale has adequate psychometric properties and it is an easily administered and non-time-consuming instrument, suitable for large samples. Likewise, the ATSPPH-SF (Fischer and Farina 1995) is the most relevant and widely used contemporary assessment measure of mental health attitudes with solid psychometric properties (Constantine 2002; Elhai et al. 2008; Fischer and Farina

1995; Komiya et al. 2000; Vogel et al. 2005). The SSOSH (Vogel et al. 2006) is a scale that directly measures the perception that seeking professional psychological help would threaten one's self-confidence and self-worth as a person. The scale exhibits strong internal consistency and validity and it has been administered to college students, which makes it suitable for the purposes of the current survey.

Method

Participants

Our sample consisted of 1381 college students of whom 35% were males ($N = 486$), 63% ($N = 870$) were females, while 1.8% ($N = 25$) of the students did not specify their gender. In terms of years of study, 10.6% were first-year students, 20.3% were second-year students, 23.8% were third-year students, 28.5% were seniors, 14.6% had exceeded the prospective years of study and 2.2% did not specify their year of study (Greek universities offer four year programmes that lead to a bachelor degree. In addition students are allowed to pursue their studies for an indefinite amount of time after they exceed the nominal four years).

Participants' ages ranged from 18 to 30 (M = 21.26, S.D. = 1.95). Nine hundred and thirty two (67.5%) of the participants lived with their parents, and 87.1% had never been in counseling before. For the test-retest reliability of the ATSSPPH-SF and the SSOSH scales, the participants used were a separate sample of postgraduate psychology students ($N = 35$), who agreed to fill in the questionnaires twice.

Procedure

The participants were recruited from National and Kapodistrian University of Athens and Panteion University of Social and Political Sciences, through class announcements asking for research-participant volunteers. The students were informed about anonymous and voluntary participation and received each of the above-mentioned scales, a consent form, as well as a demographic questionnaire. Students who chose not to participate were told to remain seated and occupy themselves silently for the duration of the data collection. First year students of the Master of Clinical Psychology at the National and Kapodistrian University of Athens were asked in class to participate in the test-retest study. All students agreed to participate.

Measures

All instruments used in the current study were obtained and used with the permission of the original authors. The scales were translated into Greek, with two bilingual translators, fluent in English and Greek, translating and back-translating the scales. The translators discussed items that showed semantic differences, and decisions regarding wording choices were made by consensus. Lastly, a faculty member in psychology and education checked the translated version of the scales and revised the wordings where needed, to ensure readability.

The Social Stigma for Receiving Psychological Help Scale (SSRPH; Komiya et al. 2000) was devised to evaluate individuals' perceptions of how stigmatizing it is to receive professional psychological help. The instrument contains five questions, each rated on a Likert-type

scale from 1 (*strongly disagree*) to 4 (*strongly agree*), with higher scores indicating greater perception of stigma associated with receiving psychological treatment. The internal consistency for the measure was originally found to be .72.

Attitudes towards seeking professional help were measured with the Attitudes towards Seeking Professional Psychological Help Scale-Short Form (ATSPPH-SF; Fischer and Farina 1995), with this being a shortened 10-item revision of the original 29-item measure (ATSPPH; Fischer and Turner 1970). Items are rated on a 4-point Likert-type scale ranging from 1 (*disagree*) to 4 (*agree*) - with five items reverse scored - so that higher scores reflect more positive attitudes. The revised scale strongly correlated with the longer version (.87), suggesting that they both were tapping similar constructs (Fischer and Farina 1995) and the internal consistency (.84) was also found to be adequate in that study.

The Self-Stigma of Seeking Help Scale (SSOSH; Vogel et al. 2006) is a 10-item scale, with items rated on a 5-point, partly anchored, scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores on the SSOSH, reflect higher endorsements of self-stigma or greater stigma toward seeking psychological help. Estimates of the internal consistency of the original scale range from .86 to .90, and the 2-week test-retest reliability has been reported to be .72 in college student samples (Vogel et al. 2006). The SSOSH has been shown to have a unidimensional factor structure and evidence of validity through correlations with attitudes toward seeking professional help and intention to seek counseling ($rs = -.53$ to $-.63$ and $-.32$ to $-.38$, respectively; Vogel et al. 2006). Moreover, the validity and reliability of the SSOSH has been examined across samples of 6 different countries and the results have suggested that the scale has a similar univariate structure across the countries involved (Vogel et al. 2013).

The General Health Questionnaire (GHQ; Goldberg and Hillier 1977) was used to assess the discriminant validity of the SSOSH scale. General health was measured by using the General Health Questionnaire (GHQ; Goldberg and Hillier 1977), which is a screening device for identifying minor psychiatric disorders and it can be used with the general population or with patients in any sort of non-psychiatric, clinical or primary care settings. This self-administered questionnaire focuses on two major areas—the inability to carry out normal functions and the appearance of new and distressing psychological phenomena. In the present survey the 28-item scaled version was administered, which assesses somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. The Greek version of the GHQ (Garyfallos et al. 1991) has adequate internal consistency, and the item-by-item and subject-by-subject analyses have shown that the Greek and English versions are equivalent and, therefore, the Greek translation is considered to be highly accurate. In the Greek version of the GHQ-28, the internal consistency is .93.

Results

Statistical Analysis: Factor Analysis with Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA)

Attitudes towards Seeking Professional Psychological Help Scale-Short Form

In order to better define attitudes towards seeking professional psychological help, principal axis exploratory factor analysis-oblique rotation, appropriate for ordinal data, was conducted using the Mplus software (version 4.2). EFA was used to explore the underlying factor

structure of the attitudes indicators and to develop the construct/hypothesis of attitudes. The resulting EFA model was subjected to CFA to further test the latent structure. We proceeded by testing the higher order dimensionality of the EFA driven 1st order solution by estimating a 2nd order and a general specific model. In EFA, as well as the three CFA models, we estimated a 2-parameter model (factor loadings and item thresholds). Factor analysis (FA) was carried out on respondents, with complete data on all 10 attitude indicators, which resulted in a study population of 1349 complete cases.

The Scree plot approach, the Kaiser-Guttman rule (for EFA only) and indices of fit such as the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA) (for both EFA and CFA) were used as a means of evaluating results of the FA. Both the Scree plot and Kaiser-Guttman rule were used to decide on the number of factors/dimensions to be retained for further analysis (Field 2000). A chi-squared goodness of fit test and these indices of fit were used to assess the model fit as suggested by guidelines proposed by Hu and Bentler (1999). These goodness of fit indices were emphasized since the chi-squared test was deemed highly sensitive to sample size, leading to possible rejection of well-fitting models.

The internal consistency of the ATSPPH-SF-Greek version was $\alpha = .76$ and the 1-month test-retest reliability was .89 ($N = 35$). Two factors were needed to adequately explain the association between the attitudes towards seeking professional psychological help (Greek version) indicators and were labeled as: Openness to Seeking Treatment for Emotional Problems, and Value and Need in Seeking Treatment. Each of these identified latent factors was derived from subsets of indicators that correlated strongly with each other and weakly with other indicators in the dataset. They provided meaningful theoretical 'explanations' or 'interpretations', linking them to the overall construct of attitudes. "Openness to Seeking Treatment for Emotional Problems" consisted of highly correlated indicators such as recognition of need for professional psychological help (item 1), confidence in professional psychological help (item 3), desire to get professional psychological help (item 5), intention to get professional psychological help in the future (item 6), recognition of usefulness of professional psychological help for solving problems (item 7).

"Value and Need in Seeking Treatment" included highly correlated indicators such as "professional psychological help is a poor way for solving emotional conflicts" (item 2), "admiration of persons who solve their problems without resorting to professional help" (item 4), "doubt about the value of psychotherapy" (item 8), "psychological counseling as a last option for solving problems" (item 9), "belief that personal and emotional troubles tend to work out by themselves" (item 10). The items of the factor "Value and Need in Seeking Treatment" were reverse scored. For the Greek scale, the first factor, "Openness of Seeking Treatment for Emotional Problems", included 5 items ($\alpha = .70$) and the second factor, "Value and Need in Seeking Treatment" also included 5 items ($\alpha = .64$).

The factor structure of the Greek version of Attitudes towards Seeking Professional Psychological Help Scale-Shortened Form (ATSPPH-SF) was derived from a principal axis exploratory factor analysis-oblique rotation, and the eigenvalue >1 (eigenvalue = 3.27, accounting for 32.70% of the total variance) was used to evaluate the factor models, which resulted in a two-dimensional measure of attitudes towards seeking professional psychological help, and consisted of 10 items. For the criterion and construct validity of the ATSPPH-Short Form, we assessed the correlations between the ATSPPH-SF total score and scores on the Stigma for Receiving Psychological Help Scale (SSRPH). The ATSPPH-SF correlated negatively with the SSRPH ($r = -.33$, $p < .01$), indicating that the less social-stigma individuals

perceived, the more positively they felt about seeking professional help. Furthermore, support for the validity of the scale was provided by the findings that the ATSPPH-SF displayed significant point-biserial correlations between respondents who had sought previous professional psychological help and those who had not ($r = .20$, $p < .01$).

We empirically compared three latent structures based on the EFA two factor model: 1st order, 2nd order and General specific models. Model fit statistics for each of the models tested are shown in Table 1. Both First and Second Order Attitude Models fit the data better than the General Specific Model. First and Second Order Models, as expected, returned almost identical statistics, within the acceptable range. The first order solution was chosen in order to maximize compatibility with the two-factor structure of the most recent study of the ATSPPH-SF's factor structure (Elhai et al. 2008). These results support the contention that the Attitudes towards Seeking Professional Psychological Help model of choice was the First Order model. The fit of the First Order Attitudes' model was better than each of the other two models.

Standardized factor loadings of the attitudes indicators by the factor "Openness of Seeking Treatment for Emotional Problems" (i.e., correlations of the observed attitudes' indicators with Openness) revealed highest loadings (.72–.75) on indicators such as "confidence in professional psychological help" (item 3), "desire to get professional psychological help" (item 5), and "intention to get professional psychological help in the future" (item 6). This is followed by midrange loadings (.39–.47) of "recognition of need for professional psychological help" (item 1) and "recognition of usefulness of professional psychological help for solving problems" (item 7).

Standardized factor loadings of the attitudes indicators by the factor "Value and Need in Seeking Treatment" (i.e., correlations of the observed attitudes' indicators with Value and Need in Seeking Treatment) revealed highest loadings (.66–.71) on indicators such as "psychological counseling as a last option for solving problems" (item 9) and "professional psychological help is a poor way for solving emotional conflicts" (item 2). This is followed by midrange loadings (.40–.49) on indicators such as "belief that personal and emotional troubles tend to work out by themselves" (item 10), "admiration of persons who solve their problems without resorting to professional help" (item 4) and "doubt about the value of psychotherapy" (item 8) (see Table 2).

Comparatively, with a previous study (Elhai et al. 2008) of the ATSPPH-SF's factor structure, the results also revealed a two factor solution, resulting in a significantly better fit than other solutions; χ^2 (26, $N = 296$) = 76.41, $p < .001$, RMSEA = .08. It is worth noting that the original ATSPPH-SF's factor structure (Fischer and Farina 1995) was derived from a varimax rotation, and only utilized the eigenvalue >1 to evaluate the factor models, which resulted in a one-dimensional measure of treatment attitudes, composed of 10 items. Modern EFA extraction methods are more sophisticated and their implementation produces more accurate data of the instruments' structural validity.

Table 1 Results of confirmatory factor analysis of the attitudes towards seeking professional psychological help

	χ^2	*df*	*p*	RMSEA	CFI	TLI
1st Order Model	168.222	34	.001	.054	.969	.959
2nd Order Model	168.217	34	.001	.054	.969	.959
General Specific Model	50.018	25	.002	.027	.994	.990

Cut off criteria for good fit- CFI&TLI > .95, RMSEA < .06 - Hu and Bentler 1999

Table 2 Standardized factor loadings of the factors derived from the 1st order model of the attitudes towards seeking professional psychological help

Specific Factors	Estimate	Standard Error	EST. /S.E.	Two-tailed *p*-value
Factor 1				
Item 1	.474	.027	17.587	.001
Item 3	.749	.019	39.687	.001
Item 5	.734	.018	37.032	.001
Item 6	.719	.016	34.384	.001
Item 7	.385	.013	13.482	.001
Factor 2				
Item 2B	.708	.031	28.013	.001
Item 4B	.404	.028	13.701	.001
Item 8B	.486	.022	16.948	.001
Item 9B	.660	.025	27.439	.001
Item 10B	.493	.028	17.617	.001

Self-Stigma Scale (SSOSH)

The internal consistency of the SSOSH-Greek version was $\alpha = .77$ as compared to .89 in the original study (Vogel et al. 2006). The 2-month test-retest reliability (.71) was adequate ($N = 35$). For the construct validity of the scale, we examined the correlations of the SSOSH total score with scores on the SSRPH scale ($r = .46$, $p < .01$). For the criterion validity, we explored the correlations between the SSOSH score and scores on the ATSSPH-SF ($r = -.53$, $p < .01$) and the Intention of Seeking Counseling (ISCI; Cash et al. 1975) scales ($r = -.27$, $p < .01$). Moreover, we assessed the discriminant validity of the scale, examining the correlation between the SSOSH total score and the score of the General Health Questionnaire (GHQ; Garyfallos et al. 1991), one measure that detects minor psychiatric disorders. The SSOSH total score was not correlated with the score of that scale, as expected. These results provide further support for the validity of the scale.

In the Greek survey, we conducted a principal axis factor analysis on the 10 items of the SSOSH in a study population of 1377 complete cases. This resulted in the extraction of one factor with an eigenvalue >1 (eigenvalue = 3.47), accounting for 34.73% of the total variance. The results indicated a unidimensional factor solution, which means that the SSOSH is measuring a single construct.

The resulting EFA model was subjected to CFA, in order to further examine this latent structure, using Mplus 4.2. The results showed an acceptable model fit; χ^2 (32, 1377) = 250.183, $p < .001$, CFI = .967, TLI = .953, RMSEA = .070. The factor loadings are presented in Table 3. Comparatively, the confirmatory factor analysis of the original study (Vogel et al. 2006) indicated a good fit of the data to the one factor model; χ^2 (35, N-470) = 103.3, $p < .001$, CFI = .98, RMSEA = .04.

Items 4, 5, and 9 showed low factor loadings but were retained in the model. However, users of the Greek version of the scale are instructed not to include them when calculating the sum score.

Stigma Scale for Receiving Psychological Help (SSRPH)

The internal consistency of the SSRPH-Greek version was $\alpha = .69$, whereas in the original study (Komiya et al. 2000) the coefficient alpha was .72. We conducted a principal axis factor analysis on the 5 items of the SSRPH in a study population of 1379 complete cases. This resulted in the

Table 3 Standardized factor loadings of the confirmatory factor analysis of the self-stigma scale

	Estimate	Standard Error	EST. /S.E.	Two-tailed *p*-value
Factor 1				
Item 1	.706	.016	44.061	.001
Item 2	.521	.020	25.687	.001
Item 3	.588	.022	27.165	.001
Item 4	.296	.025	12.053	.001
Item 5	.243	.025	9.584	.001
Item 6	.771	.016	49.430	.001
Item 7	.543	.020	27.625	.001
Item 8	.790	.014	56.007	.001
Item 9	.303	.024	12.539	.001
Item 10	.510	.022	23.696	.001

extraction of one factor with an eigenvalue >1 (eigenvalue = 2.23), accounting for 44.69% of the total variance. The results indicated a unidimensional factor solution, which means that the SSRPH is measuring a single construct.

The resulting EFA model was subjected to CFA to further examine this latent structure, using Mplus 4.2. The results showed an acceptable model fit; χ^2 (4, 1379) = 28.171, $p < .001$, CFI = .989, TLI = .973, RMSEA = .066. The factor loadings are presented in Table 4.

Demographic Associations

Three one-way analyses of covariance (ANCOVA) were conducted to determine statistically significant differences between men and women on public-stigma, self-stigma and help-seeking attitudes, controlling for age. Women reported significantly higher mean levels of attitudes towards seeking help than men (women: $M = 28.61$, $SD = 5.06$; men: $M = 25.49$, $SD = 5.46$). In contrast, men participants reported significantly higher mean levels of self-stigma (men: $M = 27.01$, $SD = 6.16$; women: $M = 25.03$, $SD = 5.76$) and public-stigma (men: $M = 10.74$, $SD = 2.65$; women: $M = 10.00$, $SD = 2.66$). Controlling for age, the effect of gender remained significant, with males reporting higher mean levels of self-stigma; F (1, 1333) = 34.73, $p < .001$, $R^2 = 0.025$; and public-stigma; F (1, 1348) = 22.97, $p < .001$, $R^2 = 0.017$; and with women reporting higher mean levels of attitudes towards seeking help; F (1, 1323) = 111.92, $p < .001$, $R^2 = 0.079$. Levene's test for equality of variances was found to be violated in

Table 4 Standardized factor loadings of the confirmatory factor analysis for the stigma scale for receiving psychological help

	Estimate	Standard Error	EST. /S.E.	Two-tailed *p*-value
Factor 1				
Item 1	.434	.028	15.651	.001
Item 2	.351	.029	12.006	.001
Item 3	.820	.020	41.836	.001
Item 4	.590	.022	26.393	.001
Item 5	.706	.021	33.113	.001

the case of the ATSPPH; $F\,(1, 1322) = 5.83$, $p < .016$. Dropping the covariate from the analysis and using transformations of the dependent variable did not yield different results.

Discussion

Conclusions

The results indicated that the factor structure of the Greek version of the Attitudes towards Seeking Professional Psychological Help Scale-Short Form was consistent with the original scale (Fischer and Farina 1995), as well as the findings of the most recent study (Elhai et al. 2008) that investigated the factor structure of the original questionnaire. The results of the Greek study resulted in a two-factor solution, which represented the data well. The first factor concerns "openness to seeking psychological treatment when faced with an emotional problem", whereas the second factor deals with beliefs about the value and need for treatment. The reliability and validity of the Greek version were adequate, although lower than those of the original study. The Greek version of the abbreviated scale was standardized on a sample of university students similar to those studied by Fischer and Farina (1995).

The Greek version of the Self-Stigma of Seeking Help Scale has the same factorial structure as the original (Vogel et al. 2006). Confirmatory factor analysis resulted in a unidimensional factor model that provided a good fit of the data. The 10-item SSOSH-Greek version exhibited an adequate internal consistency. The positive association between the SSOSH and SSRPH and the negative associations with the ATSPPH-SF and ISCI supported the construct and criterion validity of the scale.

The findings of the Greek study provide support for the adequate psychometric properties of the Stigma Scale for Receiving Psychological Help. The findings resulted in a one-factor model. The measure has an acceptable level of internal consistency and it can be used for research purposes.

Results revealed support for the suitability and usefulness of the Greek versions of the three scales in the Greek population. It is crucial to have instruments such as the ones that were used in the present study, which measure relevant variables (i.e., perceived public-stigma, self-stigma, help-seeking attitudes) that play a significant role in the willingness to seek professional psychological help. It is definitely not enough to have evidence-based treatments available if the public does not perceive mental health care as an effective means in dealing with emotional problems or alcohol or drugs problems (Segal et al. 2005).

Additional findings contribute to the further understanding of stigma towards help-seeking. Compared with women, men perceived greater self-stigma and social-stigma towards mental health treatment. Women had more favorable attitudes towards seeking psychological help. These findings are consistent with previous research about the contribution of gender to seeking health care help (Komiya et al. 2000). In a previous Greek study, Economou et al. (2016) found that being female, having personal experience with mental illness and having a higher educational status were associated with less stigmatizing attitudes towards psychiatric medication. These findings are consistent with international studies that consistently find that women are more likely to seek help for emotional issues (Moller-Leimkuhler 2002) and possess more positive attitudes toward counseling than men (Fischer and Farina 1995). One reason may be that society considers counseling to be a

last resort, something to use only after other sources of support have failed (Angermeyer et al. 1999). Such attitudes may be particularly salient for men, who are expected to be emotionally restricted, logical, and counter-dependent, qualities that generally inhibit help-seeking behavior (Good et al. 2000; Levant and Pollack 1995). Men typically perceive that there is public-stigma associated with their seeking help (Timlin-Scalera et al. 2003) and believe that they would be stigmatized for visiting with and discussing certain issues with a counselor (Martin et al. 1997).

It is crucial to have instruments, such as the ones that were used in the present study, that measure variables (i.e., perceived public-stigma, self-stigma, help-seeking attitudes) that play such a significant role in the willingness to seek professional psychological help. Guided by future research on these factors, educational campaigns about mental health treatment can be designed in order to reach troubled individuals and promote mental health delivery, thus helping a significant number of people who could benefit from treatment. Changing public-stigma attached to treatment remains an important step and may be the ultimate goal. However, mental health professionals also should assist those in need by helping them learn how to manage the negative effects of self-stigma.

Limitations

The participants in the current study were university students, in order to ensure comparable results with the original studies. This should be taken into consideration when generalizing from these results. Conducting a research study with different samples such as psychiatric patients, older people, or non-university-educated individuals, would enhance the generalizability of the results. Furthermore, the participants of this study were Caucasian in race/ethnicity. Therefore, additional research may be needed in order to compare across diverse racial/ethnic groups.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

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Affiliations

Georgios Efstathiou[1] **· Elli Kouvaraki**[1] **· George Ploubidis**[2] **· Anastasia Kalantzi-Azizi**[1]

[1] Institute of Behaviour Research and Therapy, Aiolou 102, 10564 Athens, Greece

[2] Department of Social Science, UCL Institute of Education, University College London, London, UK