

Intolerance of Uncertainty as a Factor of Social Anxiety in Student Youth

Інтолерантність до невизначеності як чинник соціальної тривожності у студентської молоді

Nataliia Zaviazkina

Dr. in Psychology, Assistant Professor, Taras Shevchenko National University of Kyiv, Kyiv (Ukraine)

ORCID ID: <https://orcid.org/0000-0001-5565-8959>

E-mail: nmuz@ukr.net

Наталія Завязкіна

Доктор психологічних наук, доцент, Київський національний університет імені Тараса Шевченка, м. Київ (Україна)

Viktoriiia Yatsenko

Master in Psychology, Student, Taras Shevchenko National University of Kyiv, Kyiv (Ukraine)

E-mail: victoriayatsenko@knu.ua

Вікторія Яценко

Магістр психології, студентка, Київський національний університет імені Тараса Шевченка, м. Київ (Україна)

The author's contribution: Zaviazkina N. – 50%, Yatsenko V. – 50%.

Авторський внесок: Завязкіна Н. – 50%, Яценко В. – 50%.

Address for correspondence, e-mail: kpnu_lab_ps@ukr.net

Copyright: © Zaviazkina Nataliia, Yatsenko Viktoriiia



The article is licensed under **CC BY-NC 4.0 International**
(<https://creativecommons.org/licenses/by-nc/4.0/>)

© Zaviazkina Nataliia, Yatsenko Viktoriiia

DOI (article): <https://doi.org/10.32626/2227-6246.2021-52.39-60>

<http://journals.urau.ua/index.php/2227-6246>

39

ABSTRACT

During the last couple of decades in clinical psychology the interest in studying the role of intolerance of uncertainty (IU) in the context of the manifestation of anxiety and depression has been prevalent, since a number of studies have shown that IU is an important correlation of various anxiety and neurotic disorders. However, little is known today about the extent to which the relationship between IU and social anxiety remains robust against cultural influences.

The aim of the article is to find out how intolerance of uncertainty is related to social anxiety in different cultural contexts.

Methods of the research. 86 university students (22 men and 64 women) agreed to volunteer and anonymously participate in this study. They were asked to answer questions related to social anxiety (fear and avoidance of social situations), fear of negative evaluation, intolerance of ambiguity, and avoidance of ambiguity, retrieved from the following questionnaires: Liebowitz Social Anxiety Scale, Brief Fear of Negative Evaluation Scale, Budner's Tolerance-Intolerance of Ambiguity Scale, McLain's General Tolerance of Ambiguity Scale.

Results on correlation and regression analysis showed positive and statistically significant relationship between avoidance of ambiguity and social anxiety, which remained significant even when predictors were ordered in reverse order. At the same time, this relationship was significant for both fear and avoidance of social situations, while fear of negative evaluation was statistically insignificant predictor for the latter.

Conclusions. Intolerance of uncertainty makes a significant contribution to the manifestation of social anxiety, independent of fear of negative evaluation, which is consistent with the results of Western researchers. Further research with representative samples is needed for experimental studies of this relationship as well as adaptations or development of contemporary scales for measuring intolerance of uncertainty.

Key words: intolerance of uncertainty, avoidance of ambiguity, social anxiety, fear of negative evaluation, student youth.

Introduction

The modern world is becoming more and more unstable, uncertain, complex and ambiguous (the concept of the VUCA-world), which puts a person in front of the difficult challenges, since it requires him / her to tolerate uncertainty and am-

biguous situations that he / she may face in any area of his / her life. Social interaction is especially overwhelmed with such situations, since it is impossible to program other people to act according to our expectations. Therefore, in order to establish harmonious relationships with other people, it is necessary to accept the fact that people can be different and something can always go not according to the plan. In addition, the modern world is becoming more and more culturally diverse, presenting people with the challenge of accepting this diversity, which can be stressful for some people who are used to living in a world where everything is predictable. If a person does not cope with these challenges, then this may indicate the severity of his / her intolerance to uncertainty (hereinafter IU).

The study of this phenomenon began with the work of Frenkel-Brunswik (1949), who studied the attitude of a person to ambiguous situations that can be considered by his / her either as comfortable enough or as causing considerable discomfort that leads to its avoidance. At the same time, in her works Frenkel-Brunswik used the term «intolerance to ambiguity». However, today it is almost never used in the English-language literature, because it was replaced by the term «intolerance to uncertainty». This transition is related to a conceptual rethinking of this construct, which occurred during the course of studying its role in the context of anxiety. As a result of these studies, IU began to be considered as a feature of the cognition, which affects how an individual perceives information in ambiguous situations and responds to it on a cognitive, emotional and behavioral levels (Freeston et al., 1994).

During the same period, Dugas et al. (1998) used these ideas to build a cognitive-behavioral model of generalized anxiety disorder, supplementing them with research results from a non-clinical sample (Dugas et al., 2001). A little later, he and colleagues conducted a study in which they confirmed that IU is a specific sign of generalized anxiety disorder, and should be taken into account in its differential diagnosis (Du-

gas et al., 2005). In addition, in 2011 a meta-analysis was conducted which confirmed the relationship between IU and generalized anxiety disorder, as well as its relationships with obsessive-compulsive and major depressive disorder (Gentes & Ruscio, 2011).

During investigation of the relationships between IU and various anxiety and depressive disorders, Carleton et al. (2012) began studying its conceptual structure. He defined intolerance of uncertainty as a «dispositional characteristic resulting from negative beliefs about uncertainty and its implications» (Carleton et al., 2012: 1). As a result of checking the factorial structure of IU, he identified two of its main aspects: 1) *prospective* (i. e. cognitively oriented, such as «I can't stand being taken by surprise»), more associated with anxiety and obsessive-compulsive disorder, and 2) *inhibitory* (i. e. behavioral, such as «When it's time to act, uncertainty paralyzes me»), more associated with social anxiety, panic disorder, agoraphobia, and depression. The results obtained by Carlton and colleagues provide additional evidence that the IU can be an important transdiagnostic element of anxiety and depressive disorders. At the same time, McEvoy and Mahoney (2012) conducted research in a treatment-seeking sample, the results of which showed that IU is an important mediator between neuroticism and various anxiety and depressive disorders, confirming the results of previous studies.

Social anxiety is quite common and can occur in all people, depending on the significance of a particular social situation for the individual. It is characterised by a feeling of tension and worry in situations in which a person can become the object of observation or evaluation by others and is associated with false cognitive attitudes (Clark & Wells, 1997). The leading cognitive attitudes of a person with social anxiety are related to fear of negative evaluation, fear of being rejected, as well as fear of showing their weakness in the form of excessive worrying (Clark & Wells, 1997; Heimberg et al., 2010). Such

beliefs can induce a person to avoid such situations, which can lead to a significant impairment in his / her quality of life at different levels of functioning (Aderka et al., 2012), especially during the student years (Krasnova, 2013).

Social anxiety develops into social anxiety disorder, provided that it begins to cause significant discomfort in a person's life and interferes with the normal functioning (American Psychiatric Association, 2013). R. Rapee and S. Spence point out that this last characteristic is especially influenced by cultural factors (Spence & Rapee, 2016), because people with social anxiety rely on the expectations and standards of the people around them. Therefore, the experience and / or manifestation of social anxiety may differ depending on the factors transmitted by their culture (Hofmann, 2010). This fact determines the importance of conducting cross-cultural research on various aspects of social anxiety, as well as the characteristics of their relationships with the other psychological phenomena, including IU.

P. Boelen and A. Reijntjes were among the first who investigated the relationship between IU and social anxiety (Boelen & Reijntjes, 2009). The researchers were interested in the extent to which IU accounted for the differences in social anxiety during the control of neuroticism, fear of negative evaluation, sensitivity to anxiety, self-esteem, perfectionism, and pathological anxiety. In this study, IU was as a unique correlation of social anxiety in addition to neuroticism, which amounted to an additional 5.4% variance. In addition, IU together with neuroticism and fear of negative evaluation accounted for 58.2% of the variance of social anxiety. The results of this study provide the evidence that there is a specific relationship between IU and social anxiety. However, the sample was not representative enough, as it included randomly selected subjects, mostly with higher education and Internet access, and women were the majority of the sample.

In a similar study, R. Carleton and colleagues conceptually supplemented Boelen's study (Carleton et al., 2010). The researchers aimed to replicate the results of the relationship between IU and social anxiety, as well as to study various aspects of IU, social anxiety (fear of social interaction and performance, social distress and avoidance), negative and positive affect and sensitivity to anxiety. Their results confirmed the close relationship between IU and social anxiety, independent of all the other variables, with IU accounting for 48% of the variance at the first entry in the hierarchical regression and remaining significant even if the variables were arranged in the reverse order. In addition, when IU was divided into two components: prospective anxiety and inhibitory anxiety, IU as inhibitory anxiety accounted for a half (51%) of the variance of fear of social interaction and performance and a third part (30%) of the variance of social distress and avoidance.

However, little is known about the extent to which the relationship between IU and social anxiety remains robust against cultural influences. Ukrainian culture has its own specificity, which is different from the western one, which can in a certain way affect the manifestations of social anxiety in our country. So far, we haven't done enough research on this issue, so we decided to try to replicate in part the study of Carleton et al. (2010) to check the original hypothesis about the relationship between IU and social anxiety in the other cultural context, using available measures. Also, we decided to expand it a little, further studying the relationship between IU and the affective and behavioral components of social anxiety.

Therefore, **the aim of the article** is to find out how intolerance of uncertainty is related to manifestation of social anxiety in a different cultural context, using a sample of Ukrainian students.

Objectives of the article are:

1. To compare average scores on social anxiety and intolerance of uncertainty in female and male students.

2. To investigate the relationships between intolerance of uncertainty and social anxiety, and its affective and behavioral components.

Methods

Design and participants. The data was collected online using Google Forms during April-May 2020. The link to the Google-form was spread by the group leaders via Telegram messenger. Before completing the questionnaires, participants had to confirm their informed consent for participation in the study, in which information about confidentiality, the right of voluntary participation and investigation procedure was provided; at the end there were questions about demographic information. To avoid missing data all questions in the Google-form were noted as mandatory.

The sample consisted of 86 students from different faculties of Taras Shevchenko National University of Kyiv at the age of 17 to 24 ($M = 19.6$, $SD = 1.44$, $Me = 20$), including 22 men (25.6%) and 64 women (74.4%). The main participants of the study were students from Institute of Biology (59.3%) and Faculty of Psychology (26.7%), the rest – from Faculty of Chemistry (7%), Computer Sciences (4.7%), History (1.2%), and Radiophysics (1.2%). The distribution by years was also uneven: most of the students came from the fourth (38.4%) and third (27.9%) year, the rest were from the second (15.1%), first (16.3%), and fifth (2.3%).

Measures. *Intolerance of uncertainty* was measured by the Intolerance of ambiguity scale, retrieved from the questionnaire «Budner's Tolerance-Intolerance of Ambiguity Scale» (Kornilova & Chumakova, 2014), and the Avoidance of ambiguity scale, retrieved from the questionnaire «McLain's General Tolerance of Ambiguity Scale» (Osin, 2010); however, in the final analysis only the McLain's scale was used, as its items were more consistent than the Budner's scale (see Table 1). However, the relationship between these scales was strong

($r = 0.57$, $p < 0.05$). Each of these scales contains a list of statements with which the subject must agree or disagree with using the Likert scale, where 0 – completely disagree, and 7 – completely agree.

Social anxiety was measured by the questionnaire «Liebowitz Social Anxiety Scale» (Grigorieva & Yenikolopov, 2016), which consists of two subscales – fear and avoidance of social situations. This questionnaire contains a list of social situations that the subject must assess on the Likert scale in accordance with how strong is the fear that they cause in him / her (0 – not at all; 3 – strong) and how often does she / he try to avoid them (0 – never; 3 – always). «Brief Fear of Negative Evaluation Scale» (Grigorieva & Yenikolopov, 2016) was used to test our theoretical model (see Table 4), since this construct is known to have a close relationship with social anxiety (Weeks et al., 2005); contains a list of statements that need to be assessed according to the degree of agreement from 0 (absolutely disagree) to 4 (absolutely agree).

Table 1

Indicators of reliability-consistency of the received data
(N = 86)

Scales	Number of items	Cronbach's alpha	McDonald's omega
Social anxiety total score	38	0.90	0.92
Fear of social situations	19	0.88	0.91
Avoidance of social situations	19	0.77	0.81
Fear of negative evaluation	12	0.92	0.94
Avoidance of ambiguity	9	0.84	0.89
Intolerance of ambiguity	7	0.59	0.75

According to the Table 1, almost all scales seem to be reliable: Cronbach's alpha estimates were quite high (from 0.77 to 0.92), but intolerance of ambiguity scale showed unsatisfactory results ($\alpha = 0.59$). However, alpha underestimates reliability

when elements do not have equal covariances and factor loads (Revelle & Condon, 2019), so we supplemented it with McDonald's omega estimates. Total omega scores indicate that all scales are reliable enough, and more specifically: more than 75% of variance of the scales' items explains their total scores (Revelle & Condon, 2019). However, we did not dare to include the intolerance of ambiguity scale for further analysis in order to prevent measurement problems.

Statistical data analysis was carried out in the software environment R (version 4.0.3), using psych package and other additional packages. To compare the means, we used the non-parametric Mann-Whitney test, and for the correlation analysis – the parametric Pearson test. Because we expected (based on the results of Carleton et al., 2010) that all our scales would have a direct relationship with each other, we made a direct hypothesis about the relationships between constructs conducting the correlation analysis. Hierarchical regression analysis was used to build a prognostic model of social anxiety. Firstly, we arranged the predictors in the following sequence: 1 block – avoidance of uncertainty; 2 block – fear of negative evaluation. The predictors were then arranged in the reverse order. Thus, this model determined the amount of additional variance, which was accounted by each subsequent introduction of the predictor.

Results

Comparison of groups. At first, we had to test the hypothesis about the presence of statistically significant differences in the measured constructs among women and men (Table 2).

Almost all scales didn't demonstrate any statistically significant differences ($p > 0.05$), except of the fear of negative evaluation scale ($U = 400.5$, $p < 0.01$); and the average score on this scale was higher in women ($M = 27.67$, $SD = 11.53$), than in men ($M = 19.05$, $SD = 8.99$). Therefore, we decided not

to conduct further analysis separately for men and women, but to investigate the relationship in the total sample of students (N = 86).

Table 2

Comparison of mean scores on scales in women and men

Scales	Women (N = 64)		Men (N = 22)		U	p
	M	SD	M	SD		
Social anxiety total score	39.58	16.41	33.23	16.82	561	0.16
Fear of social situations	19.75	9.86	15.23	9.31	527	0.08
Avoidance of social situations	19.83	7.87	18	9.35	606.5	0.34
Fear of negative evaluation	27.67	11.53	19.05	8.99	400.5	< 0.01
Avoidance of ambiguity	26.28	9.46	22.55	10.06	571	0.19

Correlation analysis. Then, we had to test the hypothesis of a direct relationship between intolerance of uncertainty and social anxiety, but first we had to analyse the scatterplot in order to investigate the nature of the relationship and identify possible outliers.

Figure 1 shows that the relationship between avoidance of ambiguity and social anxiety is positive and quite strong, since most of the values lie along the regression line. Also at the top you can see one outlier with extremely high scores on the social anxiety scale. It is possible that this outlier may be from the clinical population, so we decided to remove it from the general sample to prevent possible distortion of the results during the analysis.

After that, we checked the scales for the normality of distribution using the Shapiro-Wilk test: for almost all scales it was normal ($p > 0.05$), except for the fear of negative evaluation scale ($p < 0.01$).

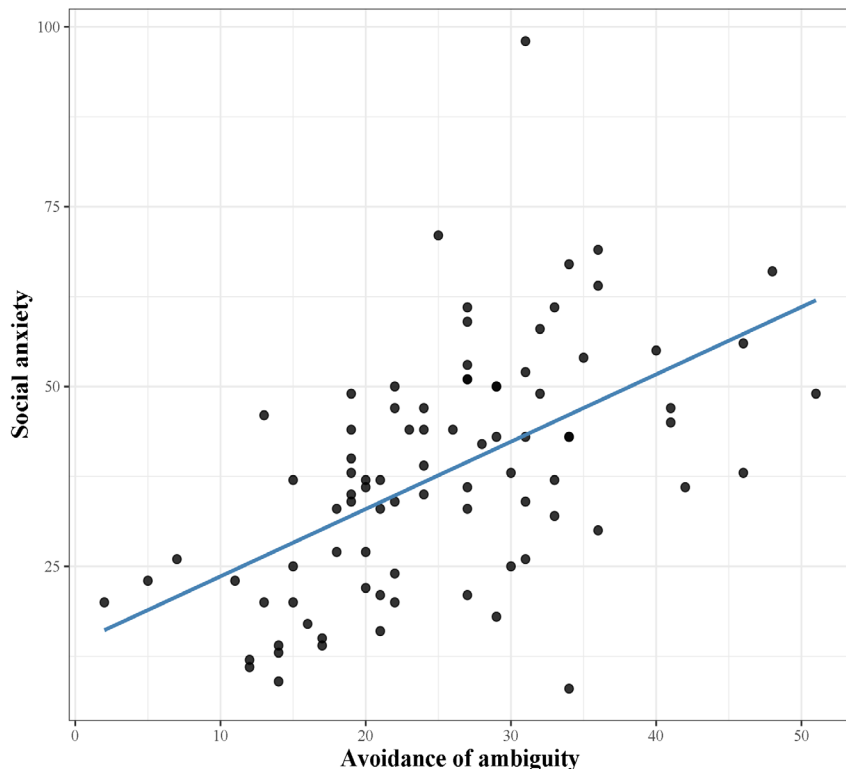


Fig. 1. The relationship between avoidance of ambiguity and social anxiety

Table 3 shows that all scales have a direct and statistically significant relationship with each other ($p < 0.05$), while the correlation estimates range from medium to high (Cohen, 1992). Avoidance of ambiguity was most strongly associated with social anxiety total score ($r = 0.57$), while fear of negative evaluation was more strongly associated with fear of social situations ($r = 0.48$) and least strongly with its avoidance ($r = 0.27$).

Table 3

Correlation matrix of the relationships between constructs
(N = 85)

Scales	1	2	3	4
1. Social anxiety total score	–			
2. Fear of social situations	0.92*** [0.89; 1.0]	–		
3. Avoidance of social situations	0.88*** [0.84; 1.0]	0.64*** [0.52; 1.0]	–	
4. Fear of negative evaluation	0.43*** [0.27; 1.0]	0.48*** [0.33; 1.0]	0.27** [0.10; 1.0]	–
5. Avoidance of ambiguity	0.57*** [0.43; 1.0]	0.52*** [0.37; 1.0]	0.51*** [0.36; 1.0]	0.47*** [0.31; 1.0]

Notes: 1. *** $p < 0.001$, ** $p < 0.01$.

2. For all scales alternative hypothesis is positive correlation.

3. In square brackets there are 95% of confidence intervals.

Regression analysis. Since the obtained correlations were statistically significant, the next step was to build a regression model for social anxiety.

The results of the regression analysis showed a strong relationship between avoidance of ambiguity and the total score of social anxiety, despite of fear of negative evaluation, accounting for 31% of the variance; fear of negative evaluation accounted for additional 3% of the variance of social anxiety (Table 4). Checking of a model quality showed the lack of multicollinearity issues (tolerance > 0.30 , VIF < 4.00), the lack of extreme outliers, normal distribution of residuals (SW = 99, $p = 0.58$) and good homoscedasticity (the dispersion spread was uniform) (Tabachnick & Fidell, 2019). When the order of entering the predictors was reversed, the fear of negative evaluation accounted for one and a half times less variance than the avoidance of ambiguity at the first introduction (Table 4).

Table 4

Regression model of social anxiety (N = 85)

Model step	Regression coefficients					Model step statistics		
	B	β	SE	t	p	ΔR^2	ΔF	p
Social anxiety total score								
1 (2) AA	0.75	0.47	0.16	4.70	< 0.01	0.31 (0.17)	39.26 (22.1)	< 0.01 (< 0.01)
2 (1) FNE	0.28	0.21	0.14	2.05	0.04	0.03 (0.18)	4.21 (22.7)	0.04 (< 0.01)
Fear of social situations								
1 (2) AA	0.36	0.38	0.10	3.72	< 0.01	0.26 (0.11)	30.42 (13.8)	< 0.01 (< 0.01)
2 (1) FNE	0.25	0.30	0.08	2.99	< 0.01	0.07 (0.22)	8.95 (21.1)	< 0.01 (< 0.01)
Avoidance of social situations								
1 (2) AA	0.38	0.49	0.08	4.55	< 0.01	0.25 (0.19)	14.38 (20.7)	< 0.01 (< 0.01)
2 (1) FNE	0.03	0.04	0.07	0.41	0.69	0.00 (0.06)	0.16 (14.4)	0.69 (< 0.01)

Notes:

1. In brackets there is model step statistics for predictors in reversed order.
2. AA – avoidance of ambiguity; FNE – fear of negative evaluation.

In the model of the affective component of social anxiety, fear of social situations was also strongly associated with avoidance of ambiguity, accounting for 26% of the variance; here fear of negative evaluation showed closer relationship and accounted for an additional 7% of the variance of fear of social situations (Table 4). The results of the reverse introduction of predictors showed that fear of a negative evaluation accounted for almost the same proportion of the variance of fear of social situations as avoidance of ambiguity at the first introduction (Table 4).

For the avoidance of social situations only the avoidance of ambiguity scale was a significant predictor accounting for 25% of the variance, which is slightly higher than for the fear of social situations (Table 4).

Discussion

The main objectives of our investigation were: 1) to compare mean scores on social anxiety and intolerance of uncertainty (IU) among female and male students; 2) based on the results of Carleton et al. (2010), to investigate the relationships between IU and social anxiety, further studying it with its affective and behavioral components. So, let's summarize the obtained results.

As a result of a comparative analysis, it was revealed that men and women statistically significantly differ in the degree of fear of negative evaluation: women showed higher scores. However, it is quite difficult to talk about the practical significance of the obtained results, since the sample was unbalanced and not large enough in both groups. Therefore, we cannot be confident enough that obtained difference reflects the situation among the student population, so this issue requires further research.

The results of the correlation analysis confirmed that all our investigated constructs have positive statistically significant relationships with each other. In particular, fear of negative evaluation and avoidance of ambiguity were positively correlated with social anxiety, which is consistent with studies of the relationships between these variables (Weeks et al., 2005; Boelen & Reijntjes, 2009; Carleton et al., 2010). At the same time, a more detailed analysis showed that fear of negative evaluation was weakly associated with the desire of students to avoid social situations. However, it should be noted that this relationship may be inaccurate, since the distribution of values on the scale of fear of negative evaluation showed significant

deviation from the norm, which may be related to the specificity of our sample.

The results of the regression analysis confirmed the robust relationship between IU and social anxiety, despite of fear of negative evaluation, accounting for the third part of the variance of social anxiety. These results are fully consistent with those of Carleton et al. (2010), obtained by the social avoidance and distress scale. At the same time, this relationship remained strong for both affective and behavioral components of social anxiety. When predictors were ordered in reverse order, IU remained a statistically significant predictor, accounting for more additional variance for social anxiety total score (17%) than for fear of social situations (11%). On the other hand, fear of a negative evaluation was a statistically insignificant predictor for avoiding social situations and a comparatively better predictor for fear of social situations (22%) than for social anxiety total score (18%).

However, this study has several limitations. At first, its correlational nature doesn't allow us to make conclusions about causal relationships between IU and social anxiety. So, the prospect research envisages experimental study of the relationship between IU and social anxiety during psychotherapy, and examination of this relationship in a longitude. Secondly, we used IU scales which were grounded in a slightly different theoretical concept than those used in modern Western studies. Therefore, future research is needed for adaptation or development of the modern instruments for measuring IU in our country.

It is also necessary to take into account the conditions in which the data were collected. Due to the quarantine throughout the country, most students were excluded from their usual university environment, so there was a threat to the validity of the obtained results. In the situation of voluntary participation in the study, there is also a threat to the validity, considering that this consent was given by people of a certain per-

sonality type. Another problem may arise when generalizing the obtained results for the entire population of university students, since the sample was insufficiently representative.

Conclusions

The results of this study show that intolerance of uncertainty has a robust relationship with social anxiety among students, despite of fear of negative evaluation. They are consistent with the results of Western researchers and indicate that intolerance of uncertainty is an important element in the context of the manifestation of social anxiety, regardless of culture.

These results may be used by university psychological services for the development of psychocorrection plans when working with students suffering from social anxiety. However, the future research with bigger samples needs for generalisation these results on the overall population of university students.

The perspectives for future research are experimental study of intolerance of uncertainty in the population of patients with social anxiety disorder during psychotherapeutic manipulation, and adaptation or development of modern scales for measuring intolerance of uncertainty.

Conflict of interests. Authors have no potential conflict of interests about this research, authorship and / or publication of this article.

Data accessibility. All of the materials and analytic script of this project are available at Open Science Foundation site (<https://osf.io/8sz9v/>).

Literature

Григорьева И. В., Ениколопов С. Н. Апробация опросников «Шкала социальной тревожности Либовица» и «Шкала страха негативной оценки (краткая версия)». *Национальный психологический журнал*. 2016. Т. 1. № 21. С. 31–44.

© Zaviazkina Natalia, Yatsenko Viktoriia

DOI (article): <https://doi.org/10.32626/2227-6246.2021-52.39-60>

- Корнилова Т. В., Чумакова М. А. Шкалы толерантности и интолерантности к неопределенности в модификации опросника С. Баднера. *Экспериментальная психология*. 2014. Т. 7. № 1. С. 92–110.
- Краснова В. В. Социальная тревожность как фактор нарушений interpersonalных отношений и трудностей в учебной деятельности у студентов: автореф. дис. ... канд. психол. наук: спец. 19.00.13. Москва, 2013. 26 с.
- Осин Е. Н. Факторная структура русскоязычной версии шкалы общей толерантности к неопределенности Д. МакЛейна. *Психологическая диагностика*. 2010. № 2. С. 65–86.
- Aderka, I. M., Hofmann, S. G., Nickerson, A., Hermesh, H., Gilboa-Schechtman, E., & Marom, S. (2012). Functional impairment in social anxiety disorder. *Journal of anxiety disorders*. Vol. 26. No. 3. P. 393–400.
- American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders: DSM-5 (5th ed)*. Washington : Author. 947 p.
- Boelen, P. A., & Reijntjes, A. (2009). Intolerance of uncertainty and social anxiety. *Journal of anxiety disorders*. Vol. 23. No. 1. P. 130–135.
- Carleton, R. N., Collimore, K. C., & Asmundson, G. J. G. (2010). «It's not just the judgements – It's that I don't know»: Intolerance of uncertainty as a predictor of social anxiety. *Journal of Anxiety Disorders*. Vol. 24. No. 2. P. 189–195.
- Carleton, R. N., Mulvogue, M. K., Thibodeau, M. A., McCabe, R. E., Antony, M. M., & Asmundson, G. J. (2012). Increasingly certain about uncertainty: Intolerance of uncertainty across anxiety and depression. *Journal of anxiety disorders*. Vol. 26. No. 3. P. 468–479.
- Cohen, J. (1992). Statistical power analysis. *Current directions in psychological science*. Vol. 1. No. 3. P. 98–101.
- Dugas, M. J., Gagnon, F., Ladouceur, R., & Freeston, M. H. (1998). Generalized anxiety disorder: A preliminary test of a conceptual model. *Behaviour research and therapy*. Vol. 36. No. 2. P. 215–226.
- Dugas, M. J., Gosselin, P., & Landouceur, R. (2001). Intolerance of Uncertainty and Worry: Investigating Specificity in a Nonclinical Sample. *Cognitive Therapy and Research*. Vol. 25. No. 5. P. 551–558.
- Dugas, M. J., Marchand, A., & Ladouceur, R. (2005). Further validation of a cognitive-behavioral model of generalized anxiety disorder: Diagnostic and symptom specificity. *Journal of Anxiety Disorders*. Vol. 19. No. 3. P. 329–343.
- Freeston, M. H., Rhéaume, J., Letarte, H., Dugas, M. J., & Ladouceur, R. Why do people worry? (1994). *Personality and individual differences*. Vol. 17. No. 6. P. 791–802.

- Frenkel-Brunswik, E. (1949). Intolerance of ambiguity as an emotional and perceptual personality variable. *Journal of personality*. Vol. 18. No. 1. P. 108–143.
- Gentes, E. L., & Ruscio, A. M. (2011). A meta-analysis of the relation of intolerance of uncertainty to symptoms of generalized anxiety disorder, major depressive disorder, and obsessive-compulsive disorder. *Clinical psychology review*. Vol. 31. No. 6. P. 923–933.
- Heimberg, R. G., Brozovich, F. A., & Rapee, R. M. (2010). A cognitive behavioral model of social anxiety disorder: Update and extension. In *Social anxiety: Clinical, Developmental, and Social Perspectives*. S. G. Hofmann, P. M. DiBartolo (Eds.). New York : Academic Press. P. 395–422.
- Hofmann, S. G., Anu Asnaani, M. A., & Hinton, D. E. (2010). Cultural aspects in social anxiety and social anxiety disorder. *Depression and anxiety*. Vol. 27. No. 12. P. 1117–1127.
- McEvoy, P. M., & Mahoney, A. E. J. (2012). To be sure, to be sure: Intolerance of uncertainty mediates symptoms of various anxiety disorders and depression. *Behavior therapy*. Vol. 43. No. 3. P. 533–545.
- Revelle, W., & Condon, D. M. (2019). Reliability from α to ω : A tutorial. *Psychological assessment*. Vol. 31. No. 12. P. 1395–1411.
- Spence, S. H., Rapee, R. M. (2016). The etiology of social anxiety disorder: An evidence-based model. *Behaviour Research and Therapy*. Vol. 86. P. 50–67.
- Tabachnick, B. G., & Fidell, L. S. (2019). Using multivariate statistics. 7th ed. Boston, MA : Pearson. 848 p.
- Weeks, J. W., Heimberg, R. G., Fresco, D. M., Hart, T. A., Turk, C. L., Schneier, F. R., & et al. (2005). Empirical validation and psychometric evaluation of the brief fear of negative evaluation scale in patients with social anxiety disorder. *Psychological Assessment*. Vol. 17. P. 179–190.

References

- Grigorieva, I. V., & Yenikolopov, S. N. (2016). Aprobatsiia oprosnikov «Shkala sotsialnoi trevozhnosti Libovitsa» i «Shkala strakha negativnoi otsenki (kratkaia versiiia)» [Approbation of questionnaires «Liebowitz social anxiety scale» and «Brief fear of negative evaluation scale»]. *Natsionalnyi psikhologicheskii zhurnal – National psychological journal*, 1 (21), 31–44 [in Russian].
- Kornilova, T. V., & Chumakova, M. A. (2014). Shkaly tolerantnosti i intolerantnosti k neopredelennosti v modifikatsii S. Badnera [Tolerance and intolerance scales in modification of S. Budner's questionnaire].

- Ekspperimentalnaia psikhologiya – Experimental psychology*, 7 (1), 92–110 [in Russian].
- Krasnova, V. V. (2013). Sotsialnaia trevozhnost kak faktor narusheni interpersonalnykh otnoshenii i trudnosti v uchebnoi deiatelnosti u studentov [Social anxiety as a factor of interpersonal impairments and difficulties in educational activities in students]. *Extended abstract of candidate's thesis*. Moskva [in Russian].
- Osin, E. N. (2010). Faktornaia struktura versii shkaly obshchei tolerantnosti k neopredelennosti D. MakLeina [Factor structure of version of D. McLain's general tolerance of ambiguity scale]. *Psikhologicheskaya diagnostika – Psychological diagnostics*, 2, 65–86 [in Russian].
- Aderka, I. M., Hofmann, S. G., Nickerson, A., Hermesh, H., Gilboa-Schechtman, E., & Marom, S. (2012). Functional impairment in social anxiety disorder. *Journal of anxiety disorders*, 26 (3), 393–400.
- American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders: DSM-5* (5th ed). Washington : Author.
- Boelen, P. A., & Reijntjes, A. (2009). Intolerance of uncertainty and social anxiety. *Journal of anxiety disorders*, 23 (1), 130–135.
- Carleton, R. N., Collimore, K. C., & Asmundson, G. J. (2010). «It's not just the judgements – It's that I don't know»: Intolerance of uncertainty as a predictor of social anxiety. *Journal of Anxiety Disorders*, 24 (2), 189–195.
- Carleton, R. N., Mulvogue, M. K., Thibodeau, M. A., McCabe, R. E., Antony, M. M., & Asmundson, G. J. (2012). Increasingly certain about uncertainty: Intolerance of uncertainty across anxiety and depression. *Journal of anxiety disorders*, 26 (3), 468–479.
- Cohen, J. (1992). Statistical power analysis. *Current directions in psychological science*, 1 (3), 98–101.
- Dugas, M. J., Gagnon, F., Ladouceur, R., & Freeston, M. H. (1998). Generalized anxiety disorder: A preliminary test of a conceptual model. *Behaviour research and therapy*, 36 (2), 215–226.
- Dugas, M. J., Gosselin, P., & Ladouceur, R. (2001). Intolerance of uncertainty and worry: Investigating specificity in a nonclinical sample. *Cognitive therapy and Research*, 25 (5), 551–558.
- Dugas, M. J., Marchand, A., & Ladouceur, R. (2005). Further validation of a cognitive-behavioral model of generalized anxiety disorder: Diagnostic and symptom specificity. *Journal of Anxiety Disorders*, 19 (3), 329–343.
- Freeston, M. H., Rhéaume, J., Letarte, H., Dugas, M. J., & Ladouceur, R. (1994). Why do people worry? *Personality and individual differences*, 17 (6), 791–802.

- Frenkel-Brunswik, E. (1949). Intolerance of ambiguity as an emotional and perceptual personality variable. *Journal of personality*, 18 (1), 108–143.
- Gentes, E. L., & Ruscio, A. M. (2011). A meta-analysis of the relation of intolerance of uncertainty to symptoms of generalized anxiety disorder, major depressive disorder, and obsessive-compulsive disorder. *Clinical psychology review*, 31 (6), 923–933.
- Heimberg, R. G., Brozovich, F. A., & Rapee, R. M. (2010). A cognitive behavioral model of social anxiety disorder: Update and extension. In *Social anxiety: Clinical, Developmental, and Social Perspectives*, (pp. 395–422). Academic Press.
- Hofmann, S. G., Anu Asnaani, M. A., & Hinton, D. E. (2010). Cultural aspects in social anxiety and social anxiety disorder. *Depression and anxiety*, 27 (12), 1117–1127.
- McEvoy, P. M., & Mahoney, A. E. (2012). To be sure, to be sure: Intolerance of uncertainty mediates symptoms of various anxiety disorders and depression. *Behavior therapy*, 43 (3), 533–545.
- Revelle, W., & Condon, D. M. (2019). Reliability from α to ω : A tutorial. *Psychological assessment*, 31 (12), 1395–1411.
- Spence, S. H., & Rapee, R. M. (2016). The etiology of social anxiety disorder: An evidence-based model. *Behaviour Research and Therapy*, 86, 50–67.
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Boston, MA : Pearson.
- Weeks, J. W., Heimberg, R. G., Fresco, D. M., Hart, T. A., Turk, C. L., Schneier, F. R., & Liebowitz, M. R. (2005). Empirical validation and psychometric evaluation of the Brief Fear of Negative Evaluation Scale in patients with social anxiety disorder. *Psychological assessment*, 17 (2), 179–190.

Завязкіна Наталія, Яценко Вікторія. Інтюлерантність до невизначеності як чинник соціальної тривожності у студентської молоді

АНОТАЦІЯ

Останні декілька десятиліть у клінічній психології не згасає інтерес до вивчення ролі інтюлерантності до невизначеності (ІТН) у контексті прояву тривоги та депресії, оскільки в низці досліджень показано, що ІТН є важливим корелятом різноманітних тривожних і невротичних порушень. Утім, на сьогодні мало що відомо про те, наскільки зв'язок між ІТН та соціальною тривожністю залишається стійким щодо впливу культурних чинників.

© Zaviazkina Natalia, Yatsenko Viktoriia

DOI (article): <https://doi.org/10.32626/2227-6246.2021-52.39-60>

Мета статті полягає у вивченні того, наскільки інтолерантність до невизначеності пов'язана із соціальною тривожністю в іншому культурному контексті.

Методи дослідження. 86 студентів університету (22 – чоловіки й 64 – жінки) погодилися на добровільну й анонімну участь у цьому дослідженні. Їм було запропоновано відповісти на запитання, що стосуються соціальної тривожності (страх та уникання соціальних ситуацій), страху негативної оцінки, інтолерантності до невизначеності й уникання невизначеності, взятих з опитувальників: «Шкала Либовіца для оцінки соціальної тривоги», «Шкала страху негативної оцінки (коротка версія)», «Шкала толерантності-інтолерантності до невизначеності Баднера», «Шкала загальної толерантності до невизначеності МакЛейна».

Результати дослідження. Результати кореляційного та регресійного аналізу показали прямий статистично значущий зв'язок між униканням невизначеності й соціальною тривожністю, який залишався значущим навіть тоді, коли предиктори було розташовано у зворотному порядку. Водночас цей зв'язок був значущим як для страху, так і для уникання соціальних ситуацій, тоді як страх негативної оцінки виявився статистично незначущим предиктором для останнього.

Висновки. Інтолерантність до невизначеності вносить вагомий вклад у прояви соціальної тривожності, незалежно від страху негативної оцінки, що узгоджується з результатами західних дослідників. Подальші дослідження з репрезентативними вибірками необхідні для експериментального вивчення цього зв'язку й адаптації або розробки сучасних методик для вимірювання інтолерантності до невизначеності.

Ключові слова: інтолерантність до невизначеності, уникання невизначеності, соціальна тривожність, страх негативної оцінки, студентська молодь.

Завязкина Наталия, Яценко Виктория. Интолерантность к неопределенности как фактор социальной тревожности у студенческой молодежи

АННОТАЦИЯ

Последние несколько десятилетий в клинической психологии не угасает интерес к изучению роли интолерантности к неопределенности (ИТН) в контексте проявления тревоги и депрессии, поскольку в ряде исследо-

ваний показано, що ИТН являється важним коррелятом різних тривожних і невротических порушень. Врешт, сьогодні мало що відомо про те, наскільки зв'язь між ИТН і соціальною тривожністю залишиться стійкою відносно впливу культурних факторів.

Цель статьи заключається в вивченні того, наскільки інтолерантність до неопределенності зв'язана з соціальною тривожністю в іншому культурному контексті.

Методи дослідження. 86 студентів університету (22 – чоловіки і 64 – жінки) погодилися на добровільне і анонімне участь в цьому дослідженні. Їм було запропоновано відповісти на запитання, що стосуються соціальної тривожності (страх і уникання соціальних ситуацій), страху негативної оцінки, інтолерантності до неопределенності і уникання неопределенності, взятих з опитувальників: «Шкала Либовица для оцінки соціальної тривоги», «Шкала страху негативної оцінки (коротка версія)», «Шкала толерантності-інтолерантності до неопределенності Баднера», «Шкала загальної толерантності до неопределенності МакЛейна».

Результати дослідження. Результати кореляційного і регресійного аналізу показали пряму статистически значиму зв'язь між униканням неопределенності і соціальною тривожністю, яка залишалася значимою навіть тоді, коли предиктори були розпоряджені в зворотному порядку. В той же час ця зв'язь була значимою як для страху, так і для уникання соціальних ситуацій, тоді як страх негативної оцінки виявився статистически незначимим предиктором для останнього.

Висновки. Інтолерантність до неопределенності вносить вагомий внесок в проявлення соціальної тривожності, незалежно від страху негативної оцінки, що узгоджується з результатами західних дослідників. Далішні дослідження з репрезентативними вибірками необхідні для експериментального вивчення цієї зв'язи і адаптації або розробки сучасних методик для вимірювання інтолерантності до неопределенності.

Ключевые слова: інтолерантність до неопределенності, уникання неопределенності, соціальна тривожність, страх негативної оцінки, студентська молодь.

Original manuscript received March 14, 2021

Revised manuscript accepted April 18, 2021