

Alyona Ivanova^{1§}, Ekaterina Stefanenko², Sergey Enikolopov³, René T. Proyer⁴, Willibald Ruch⁵

Алена Иванова^{1§}, Екатерина Стефаненко², Сергей Ениколопов³, Рене Т. Проер⁴, Виллибальд Рух⁵

¹ Clinical psychology department, Scientific Centre of Mental Health RAMS, Kashirskoye shosse, 34 115522, Moscow, Russia; Moscow State University of Psychology & Education, 127 051, Sretenka str., 29, Moscow Russia, ivalenka@list.ru

² Clinical psychology department, Scientific Centre of Mental Health RAMS, Kashirskoye shosse, 34 115522, Moscow, Russia; matja@yandex.ua

³ Clinical psychology department, Scientific Centre of Mental Health RAMS, Kashirskoye shosse, 34 115522, Moscow, Russia; Criminal psychology department, Moscow State University of Psychology & Education, 127 051, Sretenka str., 29, Moscow Russia, enikolopov@mail.ru

⁴Department of Psychology, Personality and Assessment, University of Zurich, Binzmühlestrasse 14/7, CH-8050 Zürich, Switzerland r.proyer@psychologie.uzh.ch

⁵ Department of Psychology, Personality and Assessment, University of Zurich, Binzmühlestrasse 14/7, CH-8050 Zürich, Switzerland w.ruch@psychologie.uzh.ch

*These authors contributed equally to this work

§Corresponding author

¹ Отдел медицинской психологии Научного центра психического здоровья РАМН, Каширское шоссе, 34 115522, Москва, Россия; Московский городской психолого-педагогический университет, 127 051, ул. Сретенка, 29, Москва

² отдел медицинской психологии Научного центра психического здоровья РАМН, Каширское шоссе, 34 115522, Москва, Россия;

³ Кафедра криминальной психологии Московского городского психолого-педагогического университета, 127 051, ул. Сретенка, 29, Москва

⁴отдел психологии, личности и ассессмента, Цюрихский университет Binzmühlestrasse 14/7, CH-8050 Цюрих, Швейцария

⁵отдел психологии, личности и ассессмента, Цюрихский университет Binzmühlestrasse 14/7, CH-8050 Цюрих, Швейцария

The fear of being laughed at in healthy people and psychiatric patients. Assessing gelotophobia in Russia.

Страх насмешки у здоровых и психически больных людей. Оценка гелотофобии в России

Abstract

Background

Gelotophobia is defined as the fear of being laughed at. The GELOPH<15> is a standard instrument for its subjective assessment. Gelotophobia is seen as an individual differences phenomenon but it was also shown that gelotophobia prevailed in psychiatric patients in comparison with controls.

The aims of the present study were to develop a Russian adaptation of the GELOPH<15>, and to study gelotophobia in psychiatric patients.

Methods

The GELOPH<15> was administered to two samples. The sample 1 consisted of 216 men and women between 18-69 years, from Moscow and Kostroma, a relatively small Russian town. The sample 2 comprised three groups of young men: 14 with schizophrenia; 20 with affective disorders; and 40 as a control group.

Results

The data obtained showed high reliability of the Russian GELOPH<15> ($\alpha=.83$), its one-dimensional factor structure. Gelotophobia existed independently from age, sex and marital status. 7.41% of participants exceeded a cut-off score indicating at least slight expression of gelotophobic symptoms. The expression of gelotophobia was significantly higher in Kostroma than in Moscow. Gelotophobia was higher in psychiatric patients than in controls. The two clinical groups did not differ from each other.

Conclusions

The Russian version of the GELOPH<15> yielded good psychometric properties, the clinical study provided support for its validity, and it may be recommended for the future research of the fear of being laughed at. The results indicated that the fear of being laughed at was more pronounced in a smaller compared to a larger city. Psychiatric patients scored higher in gelotophobia than normal controls.

Аннотация

Введение

Гелотофобия определяется как страх оказаться объектом насмешки. Опросник GELOPH<15> является стандартным инструментом для ее субъективного измерения. Гелотофобия рассматривается как феномен индивидуальных различий, но было также показано, что гелотофобия превалирует у людей с психическими заболеваниями, по сравнению с контрольной группой.

Целями настоящего исследования стали адаптация опросника GELOPH<15> на русскоязычной выборке и исследование гелотофобии у людей с психическими заболеваниями.

Методы

Опросник GELOPH<15> предлагалось заполнить испытуемым двух групп. Выборку 1 составили 216 мужчин и женщин в возрасте от 18 до 69 лет из Москвы и относительно небольшого русского города Костромы. Выборка 2 включала три группы молодых людей: 14 больных шизофренией; 20 больных аффективными расстройствами; и 40 психически здоровых людей в качестве контрольной группы.

Результаты

Полученные результаты показали высокую надежность русскоязычной версии опросника GELOPH<15> ($\alpha=.83$), его однофакторную структуру. Гелотофобия оказалась не связанной с полом, возрастом и семейным статусом. 7.41% испытуемых получили балл, превышающий пороговую величину, характеризующую наличие по крайней мере легкой выраженности симптомов гелотофобии. Выраженность гелотофобии была значимо выше в Костроме, чем в Москве. У больных психическими заболеваниями гелотофобия была

выше, чем в контрольной группе. Между двумя клиническими группами значимых различий не выявлено.

Выводы

Русскоязычная версия опросника GELOPH<15> имеет хорошие психометрические характеристики, результаты клинического исследования свидетельствуют в пользу ее валидности, и опросник может быть рекомендован для дальнейших исследований страха насмешки. Результаты показали, что страх оказаться объектом насмешки выражен больше в небольших городах, по сравнению с крупными. Больные психическими заболеваниями получили более высокие баллы по опроснику, чем психически здоровые люди.

Background

Gelotophobia is defined as the fear of being laughed at [25]. Gelotophobes do not experience laughter and smiling from their interaction partners as something positive but as a mean to put them down. They are very observant if they are together with the other people and get suspicious easily while hearing laughter from others. They cannot experience laughter as relaxing or positive but only as aggressive acts by others. These ideas are accompanied by the conviction of actually being ridiculous and therefore being laughed at for a good reason (for an overview see [18], [24]).

First descriptions of gelotophobia were obtained from single-case observations in clinical practice [33]. In the first empirical study on the fear of being laughed at [25] a group of clinically diagnosed gelotophobes could be separated by means of a list of 46 statements from groups of shame-based and non-shame based neurotics, as defined by Nathanson [9], and normal controls. The list was compiled based on prototypical statements of gelotophobes that were collected from clinical practice (see [25] for details). This supported the initial view of gelotophobia as a clinical phenomenon with a pathological component.

Ruch and Proyer [26] reduced the list of statements to a 15-item questionnaire that only contained the core-items for gelotophobia (GELOPH<15>). Furthermore, they empirically derived cut-off points indicating slight, pronounced, and extreme expressions of gelotophobia. The criteria used were: (1) the answer format of the questionnaire (the scale mid point is 2.50 and a person with this score have agreed to at least half of the items); (2) a score of two standard deviations above the mean in the group of normal controls (data from [25] were re-analyzed); and (3) the score at which the distribution curves of normal controls and diagnosed gelotophobes intersected.

The application of the cut-off scores showed that there were a considerable number of normal controls that showed at least slight expression of gelotophobia (11.65% in a sample from Germany; [26]). Therefore, Ruch and Proyer [26] concluded that gelotophobia is of relevance within the range of normality as well and should be studied best as an individual difference phenomenon that ranges on a continuum from low to high fear of being laughed at. In this paradigm the high scorers do not necessarily have a pathological fear of being laughed at, and the results are located in the sub-clinical realm; however, extreme expressions may be relevant in a clinical context as well. Nevertheless, a cut-off value of 2.5 did identify 93% of clinically diagnosed gelotophobes [24].

Evidence for the validity of the concept stems from different sources including experimental approaches. For example, participants in the study by Ruch, Altfreder and Proyer [28] listened to tape-recordings of different kinds of laughter (e.g., happy, sad etc). The results showed that gelotophobes experience positively motivated laughter as more unpleasant than non-gelotophobes (i.e., those with a score < 2.50 in the GELOPH<15>). They were also more prone to seeing that the laughing person is in a state of negative affect. People with no fear of being laughed at and those in a borderline category experienced an increase in positive mood after the laughter perception task whereas people with high fear of being laughed at remained unaffected. In a semi-projective cartoon evaluation task (the Picture-Geloph) the latter also gave more answers that expressed mockery and fear of being laughed at than the other subjects.

Gelotophobes characterize their humor style as inept, socially cold, and mean-spirited. They report less frequent use of humor as a means for coping and indulge less often in self-enhancing and social humor. On the other hand their ability to create humor may not be impaired [29]. Gelotophobia is mainly negatively related to hope/optimism, curiosity, bravery, love, and zest [17], and positively related to introversion and neuroticism [27]. Additionally, the fear of being laughed at has been studied in relation to self-conscious emotions [11], [20], [23], age-related changes [13], [15], emotion-regulation skills [10], or psychological gender [22].

Titze [33] traces the causes of gelotophobia back to the infancy. There, he postulates, exists an impaired interaction between the infant and the caretaker(s) and together with intense, repeated, and traumatic experiences of being laughed at or ridiculed leads to the development of gelotophobia. Its consequences are quite diverse and reach from social withdrawal to lack of liveliness, or the inability to appreciate laughter and smiling as joyful social experiences. The aversive reaction towards laughter and smiling is seen as the core component of the fear of being laughed at [33].

However, this model is based on observations from case-studies and has not yet been fully tested empirically. Partially, there are empirical evidences that contradict it. For example, it was shown that gelotophobia exists to a large degree independently from actual experiences of being laughed at [19], [30]. However, it was confirmed that gelotophobes are less cheerful [29], rarely feel joy, tend to feel shame and fear [12], or underestimate their own cognitive abilities [17]. In a recent study it was found that gelotophobia correlates with being a bullying victim [5], [14], although the direction of causality in this relation has to be studied in future research.

Clinical studies on gelotophobia revealed its prevalence in psychiatric patients in comparison with controls [4], [7]. Samson, Huber, and Ruch [31] found that 45% of patients with Asperger's Syndrome in their sample demonstrated at least slight expression of gelotophobia. In comparison with healthy controls, these patients were less able to laugh at themselves, but tended to mock others. In Forabosco et al. [4], patients with personality disorders and schizophrenia yielded higher scores on gelotophobia than patients with eating disorders, mood disorders, or anxiety disorders. Overall, the group of patients exceeded the normal controls in their fear of being laughed at. The expression of gelotophobia also positively correlates with the duration of a patient's attending in a psychiatric care setting [4].

Ivanova [6] reports that patients with schizophrenia and affective disorders tend to identify with the mocked character reading a joke, which possibly reflects gelotophobia. Ivanova et al. [7] supposed that gelotophobia in psychiatric patients may be associated more with fear than shame, whereas in healthy people it is vice versa.

Titze [33] sees gelotophobia as a special form of shame-based anxiety. Gelotophobia overlaps with social phobia, but also has some differences. According to Titze (2009), the criterion for discriminating patients with social phobia and gelotophobia is the congealed expression of the latter, as they try to deliberately control their spontaneous body movements. Titze [32], [33] uses the term "Pinocchio-Syndrome" for describing the "wooden appearance" of gelotophobes. Two studies have shown robust correlations between gelotophobia and measures of social anxiety [1], [3]. However, Carretero-Dios et al. [1] showed that gelotophobia is psychometrically distinct from social anxiety and social distress. Both, an exploratory as well as a confirmatory factor analysis revealed a three-factor structure for the GELOPH<15> [26], Social Anxiety and Distress and Fear of Negative Evaluation scales [34]. Overall, this study showed that the fear of being laughed cannot fully be accounted for by these two measures of social phobia.

Thus, gelotophobia as the pathological fear of being laughed at has overlappings with such syndromes as social phobia (social anxiety), depression (shame-based), and paranoid tendency. Gelotophobia may be revealed in structure of different mental diseases, but mostly in

schizotypal ones.

The review on gelotophobia research reveals the two concepts of gelotophobia related to either clinical or individual differences approach. In clinical field the pathological fear of being laughed at is diagnosed and the ill-healthy dichotomy is used. On the other hand, in healthy people the fear of being laughed at is seen as an individual difference variable or personality trait [24]. The two concepts encouraged Ruch [24] to elaborate criteria for distinguishing the two phenomena. The fear of being laughed at may be seen as pathological when: (a) the fear appears without sufficient cause, (b) the physiological and behavioral symptoms appear with extraordinary intensity, and (c) the impact of the fear is prolonged.

Gelotophobia in Russia

Gelotophobia is a universal phenomenon [21] and should be of relevance in Russia. At the same time the post-Soviet mentality saved a special attitude to laughter in Russia. In Soviet Union the limitations of censure were so strong that humor occupied much space in private communication and relationships (e.g., [2]). Particularly in the 90th telling jokes was a special activity. In family parties or in a circle of friends people used to spend several hours just exchanging of jokes [2]. Humor in general got exaggerated positive attitude.

The national attitude to humor in Russia may be seen also through the main character of Russian fairytales – Ivan the Fool. He is foolish, lazy, odd and funny and always gets a half of the kingdom and the princess at the end of the story. Moreover, other characters often straightly laugh at Ivan the Fool. Thus Russian folklore contains positive attitude to oddity and foolishness and implicit idea that the Fool (clown, trickster) always wins.

Panchenko described the phenomenon of “urodivye” in Ancient Russia [8]. Mentally ill people were perceived as funny fools in the society, but also supposed to be the people of God, the truth tellers. To offend such a man was a great sin. Panchenko refutes the folk opinion that urodivye were always mentally ill. He describes the paradoxical phenomenon of “urodivye for God’s sake” when mentally healthy, smart and high-educated people consciously became urodivie for their religious believes. Taking into account the national features of laughter one may expect lower expression of the fear of being laughed at in Russia in comparison with Germany.

Aims of the present study

The main aim of the present study was twofold. Firstly, the psychometric properties of the Russian version of the GELOPH<15> were examined, and secondly, gelotophobia in psychiatric patients was studied.

Methods

Sample

The sample 1 was used to test the psychometric properties of the Russian version of the GELOPH<15>. The sample consisted of $N=216$ participants (76 males, 140 females) from 18 to 69 years old (mean age 25.28, $SD=10.15$). Most of them (145) were students with different affiliations and the others (71) - adults. 75 were single and the others were either married or in a relationship. Subjects from two towns took part in the study: 140 from a relatively small town Kostroma (quantity of population 270 thousands in 2010) and 73 from Moscow, the capital of Russia (10,563 thousands). 3 subjects did not indicate their place of living.

The sample 2 was used to study gelotophobia in psychiatric patients, and comprised three groups. The first group consisted of 14 patients with different forms of schizophrenia (ICD-X: F-21.0, F-20.0, F-20.1, F-20.2, F-20.0), males from 17 to 28 years old (mean age 20.93 $SD=2.87$). The second group included 20 patients with affective disorders (F-32.0, F-32.1, F-32.2), males from 17 to 28 years old (mean age 21.9 $SD=3.73$). The control group consisted of 40 healthy men from 18 to 29 years old (mean age 23.28 $SD=2.64$).

Measure

The subjects completed the GELOPH<15> [26], which is a standard instrument for the subjective assessment of gelotophobia and is widely used in research (see for example, [4], [7], [11], [24]). In a multinational study it was translated into 42 languages [21]. The GELOPH<15> is a questionnaire, which includes 15 positively keyed items, and the 4-point answer format ranges from 1 = “strongly disagree” to 4 = “strongly agree” [26]. Its high internal consistency ($\alpha=.93$) and one-dimensional structure were confirmed. Close to 12% of the normal controls (in a sample from Germany) exceeded the cut off point of 2.5 indicating at least slight expression of gelotophobia [26].

The following statistical tests were used: descriptive statistics, mean level comparisons (t-test, U-test), reliability analysis (Cronbach Alpha; evaluation of the corrected item-total correlations of the single items), correlation analyses (Pearson), and a principal components analysis for determining the factor solution of the 15 items.

Procedure

The GELOPH<15> was translated from its original German version into Russian and an independent bilingual person translated this version back into German. Then the two German versions were compared by the authors of the original version and modifications were applied.

This procedure ensured that the translation was correct but also the cultural specifications could be taken into account. The Russian version can be found in the Appendix I.

The subjects were told they were taking part in a study of sense of humor, its application in everyday life and attitude towards sense of humor of others. The subjects were also asked to answer sincerely.

The students of the sample 1 ($N=145$) filled in the GELOPH<15> in their studying groups in presence of the experimenter, and the others ($N=71$) – individually and alone in their free time. In the sample 2 all subjects completed the questionnaires in the presence of the experimenter.

Results

Sample 1

The reliability analysis indicated that the Russian version yielded a high internal consistency ($\alpha=.83$). Descriptive statistics were computed for each item separately and the total score. The items and the mean score in gelotophobia were correlated with age, sex, and marital status of the participants (Table 1).

Table 1. *Descriptive Statistics, Corrected Item Total Correlations, and Correlations with Age, Gender, and Marital Status for the Russian form of the 15-item GELOPH.*

	<i>M</i>	<i>SD</i>	<i>CITC</i>	<i>Age</i>	<i>Sex</i>	<i>Ms</i>
Item 1	2.16	0.84	.34	.04	.21**	.01
Item 2	2.03	0.98	.40	.05	.18**	-.04
Item 3	1.96	0.84	.51	-.08	.08	-.16*
Item 4	1.51	0.69	.37	-.02	-.10	.08
Item 5	1.56	0.72	.39	-.04	.00	-.04
Item 6	2.22	0.99	.42	-.05	.01	-.08
Item 7	1.76	0.87	.28	-.12	-.19**	-.03
Item 8	1.38	0.70	.51	.06	.02	-.09
Item 9	1.92	0.87	.52	-.04	.07	-.07
Item 10	1.87	0.95	.46	-.06	.01	-.12
Item 11	1.54	0.78	.50	.13*	.02	.06
Item 12	1.69	0.86	.51	.01	.04	.04
Item 13	1.44	0.69	.45	-.10	-.02	-.07

Item 14	1.43	0.69	.54	.07	.00	.00
Item 15	1.80	0.78	.59	.00	.07	.03
Total	1.75	0.45	.46	-.02	.07	-.06

Note. $N = 216$. M = mean, SD = standard deviation; $CITC$ = corrected item-total correlation (total = median $CITC$); Age = correlation with age, Sex = correlation with *sex* (1 = males, 2 = females), Ms = correlation with marital status (1 = single; 2 = in a relationship).

* $p < .05$; ** $p < .01$.

Table 1 shows that the corrected item-total correlations ranged between .28 and .59 (median = .46). Gelotophobia existed independently from the participants' age, sex, or marital status. The procedure (working in studying group in the presence of the experimenter or alone and individually) had no impact on the mean score (1.76 and 1.73 respectively, $t(214) = .41$, $p = .69$).

A principal components analysis for the 15 items was computed to examine the factorial structure (unidimensionality) of the scale. The analysis revealed one strong first factor. The eigenvalues were 4.59, 1.25, 1.14, and 1.04. The first factor explained 30.59% of the variance. The loadings of the items on the first factor ranged between .36 (item 7; "I believe that I involuntarily make a strange impression on others") and .69 (item 15; "When I have made a fool of myself in front of others I grow completely stiff and lose my ability to behave adequately"). The median of the loadings on the first factor was .56. Overall, a one-dimensional solution did fit the data best.

The answer categories of the questionnaire provide a possibility of estimating the relative importance of single items ("symptoms"). Therefore, we computed a total score of the two answer categories indicating agreement to an item (i.e., "agree" and "strongly agree") and the frequency of the endorsement to each item. The average item endorsement was 19.85% and ranged between 7.83% (item 8; "Although I frequently feel lonely, I have the tendency not to share social activities in order to protect myself from derision") and 38.71 (item 6; "I control myself strongly in order not to attract negative attention so I do not make a ridiculous impression").

The results so far show that the items are relevant in Russia but we also need information on how many persons in the sample exceeded the cut-off scores for gelotophobia. In the present sample there were 7.41% of the participants that exceeded the score indicating that gelotophobic symptoms apply (i.e., a mean score ≥ 2.50). 6.02% were characterized with slight and 1.39% with pronounced expressions of the fear of being laughed at.

A comparison of data collected in Moscow and Kostroma indicated that gelotophobia depended on the place of living. Subjects from relatively small town Kostroma had significantly higher scores on the GELOPH<15> than the participants from Moscow ($M=1.82$ $SD=.45$ and 1.62 $SD=.41$ respectively, $t(155.75)=3.23$ $p=.002$ $d=.46$).

Sample 2

As expected, the expression of gelotophobia was much higher among psychiatric patients (total score) than in controls ($M=1.61$ $SD=.40$ and 2.22 $SD=.60$ relatively, $t(56.36)=-5.05$, $p<.0001$, $d = -1.20$). The differences between the two clinical groups were not significant (mean ranks 20.14 and 15.65 for the patients with schizophrenia and affective disorders respectively, $U=103$ $p=.2$), although the mean rank was higher in the former.

Discussion

The present study showed that the fear of being laughed at is a useful concept, relevant for Russia. More than 7% of a random sample exceeded the cut-off scores for at least slight expressions of gelotophobia. The fear of being laughed at existed independently from the participants' age, sex, and marital status. This is in line with findings from the German-speaking world [24], [26].

The Russian version of the GELOPH<15> yielded high reliability (internal consistency; $\alpha=.83$). The one-dimensional factor solution is highly comparable to the one reported for the German form [26]. The Russian GELOPH<15> seems to be a useful instrument for assessing gelotophobia.

The analysis of single items revealed some national peculiarities. Out of the behaviors described in the GELOPH<15>, Russian people tend to control themselves strongly in order not to seem ridiculous. The highest average item endorsement had the item 6 "I control myself strongly in order not to attract negative attention so I do not make a ridiculous impression" (38.71). Loosing of control is the best predictor of the fear of being laughed at - the highest loading on gelotophobia has the item 15 "When I have made a fool of myself in front of others I grow completely stiff and lose my ability to behave adequately" (.69). On the other hand, social withdrawal as a protection from derision is relatively rare in Russia. The lowest average item endorsement had the item 8 "Although I frequently feel lonely, I have the tendency not to share social activities in order to protect myself from derision" (7.83%). Also for Russians making strange impression on others is not the sufficient cause to fear of their laughter as the item 7 "I

believe that I involuntarily make a strange impression on others” has the lowest loading on gelotophobia (.36).

As expected the fear of being laughed at appeared to be less presented in Russia in comparison with Germany (7.41% and 11.65% respectively). This may reflect the differences in laughter cultures.

The results on the place of living (small town vs. big city) are quite understandable. In Kostroma gelotophobia was more prevalent than in Moscow, which may be caused by the impact of higher social control and lower anonymity in smaller towns. The more people know and see each other the more they are aware of their image and reputation. Proyer et al. [21] suggest the fear of being laughed at to be connected with collectivism and individualism or independence and interdependence. The fact that people from the small town (where apparently collectivism is higher) tend to fear laughter more than those from the big city (more individualistic) fits this hypothesis well. Nevertheless the result contradicts the earlier data of Ruch and Proyer [27] where the connection between gelotophobia and the size of city was not confirmed. More studies are needed to clarify the connection.

The study confirmed the Russian GELOPH<15>’s validity as gelotophobia was higher in psychiatric patients than in controls. The differences in gelotophobia between patients with affective disorders and schizophrenia were not significant, although the mean score was higher for the latter which also confirms early results [4]. The study provides support for the notion that it is fruitful to study the fear of being laughed at among the general population but that it also may be interesting to further study expressions among clinical groups (see [24]).

Conclusions

The phenomenon of gelotophobia appeared to be valid in Russia. The Russian version of the GELOPH<15> yielded good psychometric properties. The results confirmed its validity, and the method may be recommended for the future research. Gelotophobia exists independently from age, sex and marital status, but is related to the size of place of living.

The results are encouraging and argue for a need for more research on gelotophobia with psychiatric patients. A better understanding of gelotophobic syndrome may help when doing differential diagnostics and research in dynamics of a wide range of disorders.

Appendix I

Russian version of the GELOPH

Предлагаемые ниже утверждения относятся к вашим чувствам, действиям и восприятию **в целом**. Пожалуйста, старайтесь, насколько возможно, описывать ваши **привычные** способы поведения и отношение, отмечая X один из четырёх вариантов ответа:

(1) совершенно не согласен(-на)

(2) не согласен(-на)

(3) согласен(-на)

(4) совершенно согласен(-на)

1. Когда в моем присутствии начинают смеяться, я настораживаюсь. (1) (2) (3) (4)

2. Я стараюсь уклоняться от публичных выступлений, потому что мне кажется, что другие люди почувствуют мою неуверенность, и будут насмехаться надо мной. (1) (2) (3) (4)

3. Когда посторонние люди в моем присутствии начинают смеяться, мне часто кажется, что они смеются надо мной. (1) (2) (3) (4)

4. Мне трудно поддерживать контакт глаз, потому что я боюсь услышать пренебрежительный комментарий в свой адрес. (1) (2) (3) (4)

5. Когда мне делают шутливые замечания, я становлюсь словно парализованным. (1) (2) (3) (4)

6. Я контролирую себя, чтобы ненароком не попасть в неприятную, досадную ситуацию и не стать из-за этого объектом насмешки. (1) (2) (3) (4)

7. Мне кажется, что на других я произвожу странное впечатление. (1) (2) (3) (4)

8. Несмотря на то, что я часто чувствую себя одиноким, я стараюсь избегать общественных мероприятий, чтобы уберечь себя от возможных высмеиваний и насмешек. (1) (2) (3) (4)

9. Если однажды где-нибудь я вел себя особенно неловко, я стараюсь избегать этого места. (1) (2) (3) (4)

10. Если бы у меня не возникало страха быть смешным на публике, я бы выступал публично. (1) (2) (3) (4)

11. Если у кого-то я однажды вызвал смех, я никогда больше не смогу непринужденно общаться с этим человеком. (1) (2) (3) (4)

12. Мне требуется очень много времени, чтобы прийти в себя после шутки в свой адрес (насмешки). (1) (2) (3) (4)

13. Во время танцев я чувствую себя некомфортно, поскольку убежден, что я из тех людей, которые вызывают смех и насмешки. (1) (2) (3) (4)
14. Даже когда я чувствую себя вполне спокойно, у меня возрастает страх попасть в неприятную ситуацию и показаться странным. (1) (2) (3) (4)
15. Если я оказываюсь в неловкой ситуации, я цепенею и не могу адекватно себя вести. (1) (2) (3) (4)

Competing interests

No competing interests

Authors' contributions

ES translated the collected the data, drafted the text in Russian. RTP and AI performed the statistical analysis. AI translated the text into English, review literature, drafted the text of the article, and coordinated the authors. RTP and WR corrected back translations of the GELOPH<15>. All authors participated in the study design, interpreted the results, read and approved the final manuscript.

Acknowledgements

The authors wish to thank all the participants who agreed to complete the questionnaire, and the medical staff that helped interactions with patients.

References

1. Carretero-Dios H, Ruch W, Agudelo D, Platt T, Proyer RT: **Fear of being laughed at and social anxiety: A preliminary psychometric study.** *Psychological Test and Assessment Modeling*, 2010, **52**: 108-124
2. Davies C: **Humour and Protest: Jokes under Communism.** *International Review of Social History*, 2007, **52**: 291-305
3. Edwards KR, Martin RA, Dozois DJA: **The fear of being laughed at, social anxiety, and memories of being teased during childhood.** *Psychological Test and Assessment Modeling*, 2010 (1), **52**:, 94-107

4. Forabosco G, Ruch W, Nucera P: **The fear of being laughed at among psychiatric patients.** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 233-252
5. Fuhr M: **The applicability of the GELOPH<15> in children and adolescents: First evaluation in a large sample of Danish pupils.** *Psychological Test and Assessment Modeling*, 2010 (1), **52**: 60-76
6. Ivanova A: **Psychological mechanisms of sense of humor disorders in patients with schizophrenia and cyclothymia. A qualitative analysis.** Paper presented at the 17th annual conference of the International Society for Humor Studies. Youngstown, OH, USA, 13-17 June 2005
7. Ivanova A, Stefanenko E, Enikolopov S: **Gelotophobia in structure of mental illness.** Paper presented at the 20th annual conference of the International Society for Humor Studies. Alcalá de Henares, Spain, July 7-11 2008.
8. Likhachev D, Panchenko A, Ponyrko N: **Smeh v Drevney Rusi (Laughter in Ancient Russia).** Leningrad: Nauka 1984
9. Nathanson DL: *Shame and Pride.* New York, W.W. Norton 1992
10. Papousek I, Ruch W, Freudenthaler HH, Kogler E Lang B, Schuler G: **Gelotophobia, emotion-related skills and responses to the affective states of others.** *Personality and Individual Differences* 2009, **47**: 58-63
11. Platt T: **Emotional responses to ridicule and teasing: Should gelotophobes react differently?** *Humor: International Journal of Humor Research*, 2008, **21(2)**: 105-128
12. Platt T, Ruch W: **The emotions of gelotophobes: Shameful, fearful, and joyless?** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 91-110
13. Platt T, Ruch W: **Gelotophobia and age: Do disposition towards ridicule and being laughed at predict coping with age-related vulnerabilities?** *Psychological Test and Assessment Modeling*, 2010 (2), **52**: 231-244
14. Platt T, Proyer RT, Ruch W: **Gelotophobia and bullying: The assessment of the fear of being laughed at and its application among bullying victims.** *Psychology Science Quarterly*, 2009, **5**:135-147
15. Platt T, Ruch W, Proyer RT: **A lifetime of fear of being laughed at. An aged perspective.** *Zeitschrift für Gerontologie und Geriatrie*, 2010, **43**: 36-41
16. Proyer RT, Ruch W: **How virtuous are gelotophobes? Self- and peer-reported character strengths among those who fear being laughed at** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 145-164

17. Proyer RT, Ruch W: **Intelligence and gelotophobia: The relations of self-estimated and psychometrically measured intelligence to the fear of being laughed at.** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 165-182
18. Proyer RT, Ruch W: **Dispositions towards ridicule and being laughed at: Current research on gelotophobia, gelotophilia, and katagelasticism** (Editorial). *Psychological Test and Assessment Modeling*, 2010, **52**: 49-59.
19. Proyer RT, Hempelmann CF, Ruch W: **Were they really laughed at? That much? Gelotophobes and their history of perceived derisibility.** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 213-232
20. Proyer RT, Platt T, Ruch W: **Self-conscious emotions and ridicule: Shameful gelotophobes and guilt free katagelasticists.** *Personality and Individual Differences*, 2010, **49**: 54–58
21. Proyer RT et al: **Breaking ground in cross-cultural research on the fear of being laughed at (gelotophobia): A multinational study involving 73 countries.** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 253-279
22. Radomska A, Tomczak J: **Gelotophobia, self-presentation styles, and psychological gender.** *Psychological Test and Assessment Modeling*, 2010, **52(2)**: 191-201
23. Rawlings D, Tham TA, Davis JM: **Gelotophobia, personality and emotion ratings following emotion-inducing scenarios.** *Psychological Test and Assessment Modeling*, 2010, **52(2)**: 161-170
24. Ruch W: **Fearing humor? Gelotophobia: The fear of being laughed at Introduction and overview.** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 1-26
25. Ruch W, Proyer RT: **The fear of being laughed at: Individual and group differences in Gelotophobia.** *Humor: International Journal of Humor Research*, 2008, **21(1)**: 47-67
26. Ruch W, Proyer RT: **Who is gelotophobic? Assessment criteria for the fear of being laughed at.** *Swiss Journal of Psychology*, 2008, **67(1)**: 19-27
27. Ruch W, Proyer RT: **Who fears being laughed at? The location of gelotophobia in the Eysenckian PEN-model of personality.** *Personality and Individual Differences*, 2009, **46(5-6)**: 627-630

28. Ruch W, Altfreder O, Proyer RT: **How do gelotophobes interpret laughter in ambiguous situations? An experimental validation of the concept.** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 63-90
29. Ruch W, Beermann U, Proyer RT: **Investigating the humor of gelotophobes: Does feeling ridiculous equal being humorless?** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 111-144
30. Ruch W, Proyer RT, Ventis L: **The relationship of teasing in childhood to the expression of gelotophobia in adults.** *Psychological Test and Assessment Modeling*, 2010 (1), **52**: 77-93
31. Samson AC, Huber O, Ruch W: **Teasing, ridiculing and the relation to the fear of being laughed at in individuals with Asperger's Syndrome.** *Journal of Autism and Developmental Disorders*, 2011, **41**: 475-483
32. Titze M: **The Pinocchio Complex: Overcoming the fear of laughter.** *Humor and Health Journal*, 1996, **5**: 1-11.
33. Titze M: **Gelotophobia: The fear of being laughed at.** *Humor: International Journal of Humor Research*, 2009, **22-1/2**: 27-48
34. Watson D, Friend R: **Measurement of social-evaluative anxiety.** *Journal of Consulting and Clinical Psychology*, 1969, **33**: 448-457

Figures

Tables

~~Table 1 – Descriptive Statistics, Corrected Item Total Correlations, and Correlations with Age, Gender, and Marital Status for the Russian form of the 15-item GELOPH.~~

Additional files

~~Additional file 1 – Appendix I – Russian version of the GELOPH<15>~~

~~(MSWord)~~