Gelotophobia is defined as the fear of being laughed at. Empirical studies revealed that it is a valid and useful concept which deserves further attention. Furthermore, gelotophobia is of relevance among non-clinical groups, and it should be best conceptualized as an individual differences phenomenon that ranges on a dimension from low to high fear of being laughed at. The present study presents the first empirical data on the fear of being laughed at in Israel (N = 220). It describes the adaptation of an instrument for the subjective assessment of gelotophobia to Hebrew. The translation yielded good psychometric properties in terms of high reliability ($\alpha = .89$). The Hebrew-GELOPH<15> is best described with a one-dimensional factor solution. Items referring especially to the avoidance of places where one has made an embarrassing impression yielded higher endorsements. Gelotophobia was more prevalent among younger participants, females, and participants who were not in a relationship. Approximately 6% exceeded a cut-off score indicating at least a slight expression of gelotophobic symptoms. Results are discussed with respect to further application of the questionnaire in research and practice. If confirmed by additional studies it will have a significant implication on the understanding of gelotophobia in relation to social phobia and related phobias.

**ABSTRACT**

Gelotophobia is defined as the fear of being laughed at. Empirical studies revealed that it is a valid and useful concept which deserves further attention. Furthermore, gelotophobia is of relevance among non-clinical groups, and it should be best conceptualized as an individual differences phenomenon that ranges on a dimension from low to high fear of being laughed at. The present study presents the first empirical data on the fear of being laughed at in Israel (N = 220). It describes the adaptation of an instrument for the subjective assessment of gelotophobia to Hebrew. The translation yielded good psychometric properties in terms of high reliability ($\alpha = .89$). The Hebrew-GELOPH<15> is best described with a one-dimensional factor solution. Items referring especially to the avoidance of places where one has made an embarrassing impression yielded higher endorsements. Gelotophobia was more prevalent among younger participants, females, and participants who were not in a relationship. Approximately 6% exceeded a cut-off score indicating at least a slight expression of gelotophobic symptoms. Results are discussed with respect to further application of the questionnaire in research and practice. If confirmed by additional studies it will have a significant implication on the understanding of gelotophobia in relation to social phobia and related phobias.

**INTRODUCTION**

Gelotophobia is defined as the fear of being laughed at (1). Gelotophobes do not experience laughter and smiling from their interaction partners as something positive but as a means to put them down. Furthermore, they do not experience laughter as relaxing or positive but as aggressive acts by others. For example, when they are with other people they become very observant and suspicious while hearing laughter from others. These ideas are accompanied by the conviction of actually being ridiculous and therefore being laughed at for a good reason.

The first evidence of the existence of gelotophobia as a distinct phenomenon stems from observations by clinicians in single-case studies (2). In these studies a subgroup of patients was identified and seemed primarily worried with being laughed at. Titze (2) relates the fear of being laughed at to shame-bound anxiety (i.e., avoiding behaving inappropriately and being laughed at). He suggests that gelotophobes are ashamed of their perceived shortcomings and inferiorities as compared to others. His initial observations enabled scientific studies that focused on the examination of the experiential world of those who exceedingly fear being laughed at (gelotophobes). In the first of those studies a group of clinically diagnosed gelotophobes could be separated by means of a self-report measure from groups of shame-based, non-shame-based neurotics (3) and normal controls. The criteria Titze used for diagnosing gelotophobia were: (a) shame experiences are not restricted to objective causes in circumscribed areas of life, (b) shame experiences are connected with a (poor) self-evaluation, which regularly can be reinforced by those social encounters where laughing or smiling is included, and (c) the patient shows a restrained (stiff) posture, combined with awkward movements, gaze aversion, and other forms of inappropriate behavior in situations where laughing or smiling is included. The latter refers to a specific wooden appearance that resembles a loss of deliberate control over body movements (seem motionless) when confronted with potentially shame-
ful incidents. All of the above led to the initial idea of gelotophobia being a distinct clinical phenomenon.

A recent study suggests that gelotophobia can be found in groups of normal controls as well (4). Ruch and Proyer (4) empirically derived cut-off points indicating slight, pronounced, and extreme expressions of gelotophobia in a questionnaire (GELOPH<15>). This is the standard instrument for the subjective assessment of gelotophobia which has been previously used in the German- and English-speaking worlds (5). The questionnaire allows rating of the severity of gelotophobia. The criteria used for the definition of the cut-off scores were: a) the answer format of the questionnaire (the scale mid-point is 2.50 and a person with this score has agreed to at least half of the items), b) a score of two standard deviations above the mean in the group of normal controls, and c) the score at which the distribution curves of normal controls and diagnosed gelotophobes intersected. Interestingly, the application of the cut-off scores showed that there were a considerable number of normal controls that showed at least a slight expression of gelotophobia (11.65% in a German sample). Therefore, Ruch and Proyer concluded that gelotophobia is of relevance within the range of normality as well and that it should be studied best as an individual difference phenomenon that ranges on a continuum from low to high gelotophobia. Nevertheless, studies in clinical contexts were further endorsed. For example, Forabosco and colleagues (6) found that, primarily, patients with personality disorders and patients with schizophrenic disorders yielded higher expressions of gelotophobia compared to normal controls, but also compared to other psychiatric groups entered in the study such as anxiety disorder, eating disorder and mood disorder. In general, psychiatric conditions were related to higher expressions of gelotophobia. Additionally, it was shown that the number of years spent in care was also related to higher expressions of gelotophobia. However, more studies are needed to fully understand the relation of gelotophobia to different psychiatric diagnoses.

Thus far, gelotophobia was mainly based on research among non-clinical samples. For example, a recent study focused on the gelotophobes’ reaction towards two different kinds of laughter-related situations: harmless and playful teasing among colleagues and friends vs. mean-spirited bullying type of laughter and ridicule. Gelotophobes are unable to differentiate between these situations and they experience negative emotions not only in the mean-spirited ridicule but also in the good-natured kind of teasing (7). In a recent study, gelotophobes turned out to be introverted and neurotic and scoring higher in Psychoticism-scales, which reflect paranoid tendencies, as compared to scales that intend to measure Psychoticism within the range of normality (8). Other studies looked at gelotophobia as a personality feature which is negatively related to hope/optimism, curiosity, bravery, love and zest, and positively linked to modesty, prudence (9) or emotion-related skills among gelotophobes (10). Furthermore, the fear of being laughed at exists, to a large degree, independently from life events such as actual experiences of being laughed at; this fear is related to a higher intensity of actual experiences of being laughed at (11).

**GELOTPHOBIA AND ANXIETY-RELATED DISORDERS**

It is evident that gelotophobia shares common features with anxiety-related disorders (e.g., social withdrawal in extreme expressions) and mostly with social phobia (12-16). However, expressions of gelotophobia and social phobia in specific patients might differ. For example, people with severe gelotophobia may be uncomfortable with smiling and laughter but experience no difficulty in social situations, while people with severe social phobia may have no fear of being laughed at. Currently, several studies are being conducted that examine these relations empirically. First data analyses seem to provide support for the previously formulated hypothesis. It is important to note that gelotophobia is conceptualized on a dimension ranging from low to high scores of fear of being laughed at (5). The highest scores are related to pathology while the lowest describe behavior at a sub-clinical level.

Though extreme expressions of gelotophobia and social phobia are similar, there are differences between the two. Titze (2), who interprets gelotophobia as a pathological category only, argues that gelotophobia is a specific variant of shame-bound anxiety. He traces gelotophobia back to the biased belief that the self is experienced as “intolerably ridiculous” (p. 30). He further argues that the DSM-IV (17) guidelines for diagnosing social phobia focus on specific incidents (e.g., failures, mishaps and inexcusable failures of the person, 18). Thus, a main distinction is that gelotophobes are convinced of being ridiculous, strange, curious, queer, etc., as compared to others. Therefore, they expect to be laughed at by others, as they think there is something wrong with them. Titze also formulated guidelines that should be met for the diagnosis of gelotophobia (2).

Several empirical results support the distinct charac-
The aims of the present study were threefold. Firstly, the psychometric properties of the gelotophobia-scale in the Hebrew translation were examined. Therefore, reli-

PHOBIAS IN ISRAEL

Previous studies found a rather high prevalence of fears and various phobic symptoms among Israeli young adults. Fodor (24) suggested a higher frequency of phobic disorders exists in some societies. Therefore, masculine-tough and nervous-stressful societies will be characterized by higher rates of phobic disorders (25). Israelis live in a masculine and stressful psychological atmosphere. According to Arrindell et al. (25) high masculinity countries are characterized by clearly differentiated roles in society: dominant values in society of material success and progress, dominance of men in most settings, and assertive behavior by men. Israel is characterized by many of these features and therefore the rates of various phobias are higher as compared to Eastern societies (26, 27). Iancu and colleagues (28) found that 4.5% of a normal, non-clinical population (soldiers from the Israeli army) showed social phobic symptoms (i.e., scores above 80 in the Liebowitz Social Anxiety Scale).

The current study intends to examine gelotophobia and the role of laughter and ridiculing in Israel. To the best of our knowledge, no prior study relates to or measures the expression of the fear of being laughed at in Israel.

AIMS OF THE PRESENT STUDY

The aims of the present study were threefold. Firstly, the psychometric properties of the gelotophobia-scale in the Hebrew translation were examined. Therefore, reli-

GELOPHOBIA IN ISRAEL: ON THE ASSESSMENT OF THE FEAR OF BEING LAUGHED AT

ter of gelotophobia. For example, Ruch, Altfreder and Proyer (19) acoustically presented their subjects different forms of laughter (with different emotional qualities, e.g., positive vs. negative). Gelotophobes, identified via the GELOPH<15>, rated the positively motivated laughter as more unpleasant than the non-gelotophobes. While non-gelotophobes reported a higher positive mood before and after listening to different kinds of laughter, the gelotophobes’ level of mood was not changed. To the best of our knowledge there are no similar studies with groups of social phobics. However, it seems as if the literature on social phobia does not concur with predicting these outcomes. Social phobics, or patients with other social anxiety disorders, should not necessarily feel unease when hearing others laugh or relate this laughter to them. However, further research is required to examine the above.

Almost all of the studies on gelotophobia have used the GELOPH<15> so far. Ruch and Proyer (4) have worked on the refinement of this questionnaire, starting from a set of prototypical statements of gelotophobes provided by Titze and his group. The items cover contents like paranoid sensitivity towards mockery of others, fear of the humor of others, general response to the smiling and laughter of others, or discouragement and envy when comparing the humor competence of others. Psychometric analyses suggest that these items are highly one-dimensional and do not seem to cover different facets but rather a single dimension. There is strong empirical evidence from different data sources (e.g., experiments, questionnaire studies, semi-projective tests, scenario tests) that this dimension should be interpreted as fear of being laughed at (4).

Furthermore, a set of psychometric studies support the notion that gelotophobia is related to measures of social phobia without being a redundant concept. In a recent study 211 students filled in a Spanish language version of the GELOPH<15>, the social avoidance and distress and fear of negative evaluation scales (20), which are well-used scales for measuring social anxiety and social avoidance behavior in social interactions. Fear of negative evaluations (FNE) represents a core component of social phobia. As expected, the GELOPH<15> correlated strongly and positively with the FNE (21). Lower scores in the FNE tended to go along with low scores in the GELOPH<15> but individuals with high scores in FNE tended to have both low and high scores in the fear of being laughed at. This seems to imply that fear of negative evaluation is a necessary but not sufficient condition for the fear of being laughed at. Without a fear of negative evaluation there is no fear of being laughed at. Possibly a history of being ridiculed or laughed at is a factor that transforms a fear of negative evaluation to an actual fear of being laughed at.

High and positive correlation were found between the GELOPH<15> and the Social Avoidance and Distress Scale (SAD; 20) and between the GELOPH<15> and the German version (21, 22) of the Social Phobia Inventory (SPIN, 23). A principal components analysis of the FNE, the SAD and the GELOPH<15> was performed and yielded three factors. These were rotated obliquely to simple structure. All items of the GELOPH loaded on one factor easily identified as the fear of being laughed at. Fear of negative evaluation emerged as a separate factor that covered all, except four items of the FNE, and all except two items formed a separate social avoidance and distress factor. The intercorrelation among the SAD and FNE factors was low, 0.29, and both correlated higher with gelotophobia (SAD: 0.53; FNE: 0.43).
ability analyses and factor analyses were computed. The results were compared with the original German form (4). Furthermore, the correlations of each item and the total score for gelotophobia with age, sex and marital status were computed. Secondly, the relevance of single items (i.e., symptoms) in terms of low vs. high agreements in the sample were evaluated. Thirdly, the application of the cut-off scores (4) allows estimating how many gelotophobes were in the sample (i.e., exceeding the cut-off scores).

METHOD
SAMPLE
Participants were recruited from the southern part of Israel, mostly from Beer-Sheva and its surroundings and from cities in the center of Israel, namely Tel Aviv and Holon. The data were collected between February and March 2007. Respondents were recruited through advertising, face-to-face, and snowball methods. Similar methods of recruitment were reported with other instrument development (29). The sample consisted of 220 participants. Fifty-one percent (n = 112) were males. The mean age of the participants was 36.97 (SD = 16.10) and ranged from 18 to 86 years. Seventy-five participants were not married (single) and the others were either married or in a relationship.

All participants provided informed consent and were told that their participation in the study was voluntary and anonymous. All participants voluntarily filled in the questionnaire and did not receive any remuneration for their participation. The complete administration including the instructions took approximately 10 minutes.

MEASURE
The GELOPH<15> (4) is a 15-item questionnaire for the subjective assessment of gelotophobia. All items are positively keyed and the 4-point answer format ranges from 1 = “strongly disagree” to 4 = “strongly agree.” The GELOPH<15> is the standard instrument for the subjective assessment of gelotophobia and was used in previous research (1, 6, 7). The Hebrew version of the questionnaire may be obtained from the first author.

PROCEDURE
The GELOPH<15> was translated from English to Hebrew and an independent bilingual person translated the Hebrew version to English. The two English versions were compared and modifications were applied. The authors of the original version helped in critical cases. This procedure not only ensured that the original version was correct but also that cultural specifications could be taken into account. The questionnaire was originally constructed in German and several studies were conducted using this form (2). Soon, the research plan was extended to an international scope and a standard English form was established. This form has been used in several studies so far (7, 30) and has proven excellent psychometric properties. Since then, the authors of the questionnaire use the English version as a starting point in foreign language versions.

RESULTS
The reliability analysis indicated that the Hebrew version yielded a high internal consistency (α = 0.89). We also computed mean scores and standard deviations for each item separately and a total score. The items and the mean score in gelotophobia were correlated with age, sex and marital status of the participants (see Table 1). Table 1 shows that the corrected item-total correlations ranged between 0.44 and 0.67 (M = 0.56). Gelotophobia was negatively correlated with age (i.e., the younger the participants the higher the expression of gelotophobia), positively with gender (i.e., higher among females), and higher in participants who were not in a relationship. Item 5 (“When others make joking remarks about me I feel paralyzed”) especially reflected these relationships.

For the examination of the factorial structure (unidimensionality) of the scale, a principal components analysis for the 15 items was computed. The analysis revealed one strong first factor. The eigenvalues were 5.99, 1.11, and 1.00, respectively. The first factor explained 39.92% of the variance. The loadings of the items on the first factor ranged between 0.51 (item 13, “While dancing I feel uneasy because I am convinced that those watching me assess me as being ridiculous”), and 0.73 (item 12, “It takes me very long to recover from having been laughed at”). The median of the loadings on the first factor was 0.63. 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 was computed. The average item endorsement was
13.28% and the range was between 4.09% (item 2, “I avoid expressing myself in public because I fear that people could become aware of my insecurity and could make fun of me,” and item 14, “Especially when I feel relatively unconcerned, the risk is high for me to attract negative attention and appear peculiar to others”) and 21.82% (item 9, “When I have made an embarrassing impression somewhere, I avoid the place thereafter”). The results so far show that there are single items that are relevant in Israel 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 5.91% of the participants that exceeded the score, indicating that gelotophobic symptoms apply (i.e., a mean score ≥ 2.50) (see reference 4 for more information on the cut-off scores). Of the participants 4.09% were characterized with slight and 1.36% with pronounced expressions, and .45% yielded extreme expressions of the fear of being laughed at.

**DISCUSSION**

The present study shows that gelotophobia is of relevance in Israel. Slightly less than 6% of the sample exceeded the cut-off scores for at least slight expressions of the fear of being laughed at. This score is lower than the one reported for Germany (11.65%), (4) but also slightly lower than those of self-reported specific phobia symptoms in samples from Israel (i.e., 8.7%), (28).

Interestingly, gelotophobia was more prevalent among younger participants and females. In samples from the German-speaking world there were no age or gender differences (4). Further data will be needed to examine these relations in more detail; the present sample differed from the ones used in the studies in Germany as it included more aged persons. At the moment it cannot be decided whether gelotophobia declines with higher age or whether this is a country-specific result. Currently there are several studies on their way that allow comparing data from large data sets (some samples provide the possibilities of retesting in the future for longitudinal observations) and from data sets out of multinational studies. Also, the role of partnerships has yet to be fully studied. In the present sample, gelotophobia was higher among participants who were not in a relationship. It seems evident that romantic partnerships, love and sexuality are in some way related to the fear of being laughed at (6). For exam-

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*Note. N = 219-220. 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.
ple, there is empirical evidence that people with higher scores in gelotophobia remember, to a higher degree, having been laughed at for reasons that are related to (problems in) partnership and/or marriage in the past 12 months (11). Another interpretation would be that people with high fear of being laughed at have more difficulties finding a partner (6). More research is needed in that direction.

The Hebrew version of the GELOPH<15> yielded good psychometric properties and the factorial structure is highly comparable to the one reported in the German form (4). It seems to be a useful instrument for the assessment of the fear of being laughed at in Israel.

One of the aims of this article is to stimulate interest among researchers in Israel in the topic of gelotophobia. There are numerous studies on anxiety-related concepts. Humor, humorlessness or the fear of being laughed at as a special variant of humorlessness and their relation to social phobia, though, have not gained much attention in clinical research. Hence, we believe that the consideration of the fear of being laughed at might also help enrich the understanding of social phobia and related conditions.

It should be noted that social anxiety and gelotophobia seem to have a common ancestor. In 1901 the French psychiatrist Paul Hartenberg published a book on Les Timides et la Timidité (31). Hartenberg’s account of “timidité” was rediscovered recently by Fairbrother (25) who recognized that Hartenberg’s understanding of its phenomenology is surprisingly similar to modern conceptualizations of social phobia, and that Hartenberg anticipated the criteria for social anxiety as used in the DSM and ICD. For example, Hartenberg noted that both shame and fear occur in situations where there is no actual danger, and that these emotions occur only in the presence of others. Most importantly, Hartenberg suggested that one of the main reasons timid people (i.e., social phobics according to Fairbrother, 32) are fearful of self-disclosure and expressing their opinions is a fear of ridicule. Thus, in Hartenberg’s view, the fear of being laughed at is one of the main motivations for the social inhibition of timid individuals. This factor obviously is central to gelotophobia but did not receive much attention in research on social phobia. Hartenberg listed a variety of etiological factors, but actual traumatic experiences of being laughed at during childhood or adolescence are not among them (25). More research is needed here especially involving social anxiety patients. It will be crucial to examine whether or not these patients have a disturbed perception of laughter (7, 20).

The study of humor and related traits might reveal symptoms or behavioral facets in disorders that have not yet gained much attention. This might, for instance, be helpful in setting up differential diagnoses. Another field of potential use is related to treatments. Those who extremely fear being laughed at need special care in treatment situations such as group settings. Knowing that a patient fears to be laughed at might be a good starting point for treatment by learning to appreciate humor and smiling as something positive. Titze suggests humor drama as one potential treatment for gelotophobia (2).

Research conducted on gelotophobia so far has mainly focused on individual differences (5, 33) but there are a lot of open questions relating to psychiatry that should be addressed in the future. Studies are needed that disentangle in which psychiatric groups the fear of being laughed at is more prevalent. A first study (6) showed interesting results that seem well worth following. Generally, humor and humor-related concepts seem to be fruitful concepts in psychiatry with implications on both research and treatment (34).

The major limitation of this study is that it is based on a convenient sample. Although the study shows valid psychometric properties, further studies using larger and more representative samples are needed to assess the sensitivity of the scale with regard to diverse populations. Furthermore, future research is called for to assess the consequences of being gelotophobic on medical parameters, co-morbidity and quality of life.

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References

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