PSYCHOMETRIC PROPERTIES OF THE SOCIAL ANXIETY SCALE FOR ADOLESCENTS (SASA) AND ITS RELATION TO POSITIVE IMAGINARY AUDIENCE AND ACADEMIC PERFORMANCE IN SLOVENE ADOLESCENTS

Melita PUKLEK LEVPUŠČEK[1], Mojca VIDEC[2]

[1] University of Ljubljana, Department of Psychology
Aškerčeva 2, 1000 Ljubljana, Slovenia
E-mail: melita.puklek@ff.uni-lj.si

[2] OK Consulting, d.o.o.
Ljubljana

Abstract: The main purpose of the present study was to establish the reliability and validity of the final 28-item version of the Social Anxiety Scale for Adolescents (SASA, Puklek, 1997) in a sample of early and late Slovene adolescents. We also investigated the relation of social anxiety to positive imaginary audience and students' performance in an evaluative academic situation. Confirmatory factor analysis determined a two-factor structure of the SASA (Apprehension and Fear of Negative Evaluation - AFNE and Tension and Inhibition in Social Contact - TISC). Only AFNE correlated (positively) to imaginary audience. Although socially anxious students did not appear to be academically less successful, students who scored higher on the SASA subscales reported a higher intensity of distractive factors during oral examination than their socially less anxious age-mates. Contrary to expectations, early and late adolescents did not differ in social anxiety and imaginary audience ideations. Female adolescents showed more worries and fears of negative evaluation (AFNE) than males. Males and females also differed as regards the type of imaginary audience ideations.

Key words: social anxiety, imaginary audience, academic performance, adolescents

MEASURING SOCIAL ANXIETY IN ADOLESCENCE

Social anxiety is considered a three-component syndrome since it involves feelings of apprehension, emotional distress and reticent or avoiding behavior in real or imagined social interactions (Cheek, Melchior, 1990; Leitenberg, 1990). Although it has rarely been the subject of research on adolescence, social anxiety seems important enough to merit research attention. Namely, among worries that preoccupy children in their late childhood and adolescence, the most frequent ones are social in nature, e.g. worries about acceptance and rejection by classmates, concern about the support and loyalty of friends, worries about being ridiculed or embarrassed (King, Noshspitz, 1991; Silverman, La Greca, Wasserstein, 1995). Accordingly, epidemiological studies have showed an increasing prevalence of social phobia and the highest number of social fears during mid-adolescence (e.g., Essau, Conradt, Petermann, 1999). Findings that adolescents who reported higher social anxiety also reported higher depressive symptomatology, such as negative mood or negative self-esteem, (Essau et al.,

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1999; Inderbitzen-Nolan, Walters, 2000) and poorer functioning in relationship with peers (La Greca, Lopez, 1998; Mallet, Rodriguez-Tomé, 1999) are of clinical importance. About 10% of adolescents with any social fears met the diagnosis of alcohol abuse/dependence disorders (Essau et al., 1999).

In spite of these facts, there are only a few measures focused on assessing various aspects of social anxiety in adolescents. The Social Anxiety Scale for Adolescents (SASA, Puklek, 1997) was developed in order to measure anxiety in social situations that typically evoke uneasiness, worries and avoidant behavior in adolescents. The development of the new scale seemed reasonable because at the time of its construction the only available questionnaire was the Social Anxiety Scale for Children - Revised (SASC-R; La Greca, Stone, 1993), which was developed and validated primarily for children and not specifically for adolescents. Although SASC-R was later modified for use with adolescents (Social Anxiety Scale for Adolescents; SAS-A, La Greca, Lopez, 1998) we prefer to use the SASA (Puklek, 1997) because its application to Slovene adolescents revealed good psychometric properties (Puklek, Vidmar, 2000; Puklek Levpušček, 2004).

The SASA was first validated in a group of 325 Slovene adolescents aged 12, 16 and 20 (Puklek, Vidmar, 2000). A principal components analysis with oblimin rotation and confirmatory factor analysis supported the two-factor solution for the scale and 28 items showed satisfactory factor loadings on one of the two subscales. Items in the first subscale AFNE (Apprehension and Fear of Negative Evaluation) cover the domain of adolescents' fears and worries about possible negative evaluations by peers and audience while the items in the second subscale TISC (Tension and Inhibition in Social Contacts) describe social tension/relaxation, speech or behavior inhibition in social contacts and readiness for social exposure. The results showed satisfactory concurrent validity of the scale (Puklek, Vidmar, 2000). Both SASA subscales showed moderate associations with the Social Anxiety subscale of the Self-Consciousness Scale (SCS, Feningstein, Scheier, Buss, 1975). In addition, adolescents with higher social anxiety perceived themselves as having higher general incompetence than their socially less anxious mates. The findings also supported the discriminant validity of the two subscales. Significant peers reported poorer social skills among adolescents with a higher rather than a lower score on social tension and inhibition (TISC) subscale. By contrast, significant peers did not consider adolescents with higher scores on apprehension and fear of negative evaluation (AFNE) to be socially less competent in comparison with their age-mates who scored lower on the respective subscale. Reliability (internal consistency) of both subscales was confirmed in the first validation study (Puklek, Vidmar, 2000) as well as in the follow-up study two years later (Puklek Levpušček, 2004).

While previous studies examined social anxiety in Slovene adolescents with 36 SASA test items, the first aim of the present study was to establish the reliability and construct validity of the final 28-item version of the SASA in the sample of early and late Slovene adolescents. Confirmatory Factor Analysis (CFA) was carried out to evaluate the three competing a priori models (a null model, one- and two-factor models). We expected that the CFA would confirm the previously found two-factor structure o f the SASA scale.

IMAGINARY AUDIENCE

Imaginary audience is one of the most well studied applications of Piaget's theory of egocentrism to adolescence. Adolescent egocentrism, defined as a failure to distinguish one's own perspective from those of others, was originally considered to be a result of the transition to Piaget's formal operational stage of cognitive development (Elkind, 1967). At this developmental stage the adolescents are faced with the normative transition when they must assimilate the multiple perspectives of the self and coordinate their own thinking about the self with the perspectives of others. Since the young adolescents are preoccupied with self-related thoughts, they assume that their own appearance and behavior are of as much concern to others as they are to themselves. Thus, adolescents create an imaginary audience, which is a mistaken ideation that others are always watching and evaluating them (Elkind, 1978). False ideations about the focus of others' attention are associated with heightened self-consciousness and self-presentation tendencies in social situations. Adolescents often think how to impress "the audience" (especially peers), they worry about possible personal inadequacies that might be observed by others, and they are convinced that their appearance and behavior attract others' attention (e.g., a belief that everyone notices an adolescent's new hairstyle). Because adolescents actually project their own self-evaluations on imagined others they form two kinds of imaginary audience: positive and negative (Goossens, 1984; Lapsley, FitzGerald, Rice, Jackson, 1989). Adolescents who create positive imaginary audience fantasize about appearance and behavior that might provoke admiration and approval by others (e.g., a boy fantasizes about the audience that admires him during a sporting event). On the other hand, adolescents who create negative imaginary audience are concerned about others' observation and criticism of their deficiencies (e.g., a girl who is concerned about her physical appearance imagines peers making fun of her).

Later theoretical considerations emphasized the socio-cognitive bases of adolescents' egocentric ideations instead of their cognitive origins. Imaginary audience was reconceptualized as the outcome of Selman's Level 3 social perspective-taking ability (Lapsley, Murphy, 1985) when the adolescent is able to step outside of his/her own and others' perspective and view both interaction partners from a third-party perspective (Selman, 1980). As the adolescent becomes increasingly aware of "the self as both the agent and an object in social interaction" (Vartanian, 2000, p. 645) such awareness heightens self-consciousness and heightens the adolescent's imagination of others' reactions to the self. The acquisition of Level 4 social perspective-taking ability, when the older adolescent is able to coordinate multiple third-party perspectives into a "generalized societal perspective" (Selman, 1980), is thought to reduce adolescent egocentric ideations.

The most recent view on imaginary audience is represented by the New Look theory on adolescent egocentrism (Lapsley, 1993). In this theory, imaginary audience is considered as a complex of object-relational ideations that aid the process of adolescent separation-individuation. Fantasies about themselves as centers of attention in various interpersonal situations help adolescents to maintain a feeling of connectedness with others while separating from parents (Lapsley, 1993; Lapsley et al., 1989; Var tanian, 2000).

In this study we measured positive imaginary audience by using the New Imaginary Audience Scale (NIAS, Lapsley et al., 1989). It measures how often adolescents engage in object-relational ideations such as being admired by others or influencing others' thoughts or behavior. Although the scale demonstrated excellent reliability (Goossens, Beyers, Emmen, van Aken, 2002; Lapsley et al., 1989; Vartanian, 1997), the concurrent validity of the scale (i.e., associations with other measures of adolescent egocentrism) was not consistently established (Goossens et al., 2002; Vartanian, 1997). The inspection of items in this study revealed that NIAS taps different types of object-relational ideations that might relate differently to other relevant constructs. In the preliminary analysis we accordingly performed a principal component analysis (PCA) using varimax rotation on 42 items of the NIAS. The results of the PCA confirmed the two-factor solution of the NIAS: the adolescent's ideations of being powerful, attractive, skillful and admired by others (NIAS-Admiration) and his or her ideations of occupying others' thoughts and affecting their behavior (NIAS-Influence). In the main part of the analyses we used the results on the two subscales as well as the NIAS total score.

SOCIAL ANXIETY AND IMAGINARY AUDIENCE

One of the possible reasons for an increase of social evaluation fears during adolescence may be a rise in self-consciousness in adolescence and adolescent's mistaken belief that he or she is the object of everyone's attention (Westenberg et al., 2004). We may find support for this thesis in some previous studies. For example, social anxiety was related to less favorable self-perceptions, intense processing of the self as a social subject and higher perceived negative imaginary audience in the sample of Slovene adolescents (age 12, 16 and 20) (Puklek, 1997; Puklek, Vidmar, 2000).

While the previous studies focused on the relation between negative imaginary audience and social anxiety only, the present study sought to empirically investigate the connection between the two forms of social anxiety (apprehension and fear of negative evaluation, tension and inhibition in social contact) and positive imaginary audience. Due to the absence of previous empirical data our hypothesis about the proposed relation is only tentative. Schlenker and Leary (1982), authors of self-presentational model of social anxiety, stated that social anxiety appears in social interactions where a person is motivated to make a particular impression but at the same time doubts its satisfactory evaluation by others. Since excessive engagement with social self-image seems to be an important determinant of social anxiety, we assumed that adolescents with social evaluation concerns not only imagine a critical audience but also fantasize about a positive imaginary audience. Interpersonally oriented daydreaming about being centers of others' attention may help them to maintain the need felt for connection with significant others and it may also represent a way of coping with the adolescent's self-doubts about favorable social image.

AGE AND GENDER DIFFERENCES IN SOCIAL ANXIETY AND IMAGINARY AUDIENCE

Adolescence is a time of heightened vulnerability to social anxiety, especially in its cognitive form as a fear of negative

social evaluation. This happens because adolescents increase their self-consciousness and have concerns about public self-image. The authors who used one of two questionnaires on social anxiety in adolescence (SAS-A or SASA) reported the highest intensity of worries and fears about negative social evaluation in early adolescents (Inderbitzen-Nolan, Walters, 2000; Puklek, Vidmar, 2000; Puklek Levpušček, 2004). We thus hypothesized that the cognitive component of social anxiety (i.e., apprehension and fear of negative evaluation) would be higher in early than in late adolescents. The behavioral component of social anxiety (i.e., tension and inhibition in "face to face" interactions) was expected to be unrelated to age. Due to its temperamental origin, some authors consider early-appearing social discomfort and inhibition as developmentally more stable than later-appearing social evaluation concerns (e.g., Buss, 1986). Schwartz, Snidman, Kagan (1999) found that adolescents with inhibited temperament in their second year of life were more inclined to develop social anxiety in interactive (usually unknown) social situations than adolescents with uninhibited temperament in early childhood.

In accordance with previous findings on gender differences in social anxiety (Inderbitzen-Nolan, Walters, 2000; La Greca, Lopez, 1998; Mallet, Rodriguez-Tomé, 1999; Puklek, Vidmar, 2000; Puklek Levpušček, 2004) we hypothesized that apprehension and fear of negative evaluation will be higher in females than males. Adolescent females tend to be more concerned with their public self-image than males. On the other hand, adolescent females and males did not differ in self-reported tension and inhibition in relation to peers and adults (Puklek, Vidmar, 2000; Puklek Levpušček, 2004). Some studies showed that adolescent females were more distressed and avoidant in new social situations than males, but these differences were relatively small (Inderbitzen-Nolan, Walters, 2000; La Greca, Lopez, 1998). Thus we did not expect any gender differences in self-reported social tension and inhibition.

Research on age differences in positive imaginary audience is sparse. In previous studies authors mostly investigated age trends in negative imaginary audience. Research with the Imaginary Audience Scale (IAS, Elkind, Bowen, 1979) suggest that adolescent imagination of exposing oneself to embarrassing situations peaks in early adolescence (age 12 to 14) and decreases in late adolescence (e.g., Elkind, Bowen, 1979; Goossens, Seiffge-Krenke, Marcoen, 1992; Ryan, Kuczkowski, 1994). Some other studies have, however, found no differences between adolescent age groups (Peterson, 1982) or different age effect for males and females (Goossens, 1984). Some recent empirical findings even suggest that adolescent egocentric ideations extend into early adulthood (Frankenberger, 2000).

Lapsley (1993) proposed that imaginary audience is socially constructed and it can be viewed as a contributor to psychosocial resilience and coping. In this manner, imaginary audience ideations may represent "normative, adaptive 'illusions' that allow the adolescent (and post-adolescent) to cope with the process of self-delineation and individuation" (Lapsley, 1993, p. 567). In accordance with Lapsley's conceptualization we proposed that early and late adolescents will not differ in their creation of positive imaginary audience ideations. Since previous research has not found any significant gender effect for the NIAS (Goossens et al., 2002; Lapsley et al., 1989) we expect a similar result on the

NIAS total score with Slovene adolescents. We did not, however, set up any specific hypothesis about possible gender differences in subtypes of imaginary audience ideations because this is the first study that investigates object-relational ideations as a two-dimensional rather than one-dimensional construct.

ACADEMIC PERFORMANCE OF SOCIALLY ANXIOUS STUDENTS

Because of the lack of studies in the domain of relations between social anxiety and students' academic performance in elementary and high schools we investigated this relation in the present study. We chose oral examination as an academically evaluative situation that might be especially stressful for socially anxious students. Slovene students in elementary and high schools obtain their grades through written and oral exams during the academic year. Oral assessment has a similar context at different schools: a teacher calls (usually unannounced) the student's name and the student has to come to the teacher's desk and answer the teacher's question in front of the whole class. At the end of the school year, when the teacher adds up the student's particular grades into a final grade, grades obtained through oral examination are treated the same as grades obtained through written examinations. Socially anxious students might increase their focus on themselves at oral examination because they have to prove their academic competence in front of others and there is no retreat in the case of failure. In our previous study on relations between university students' social anxiety and distractive factors experienced during public performance (Puklek, 2001) we found that verbal presentation in front of a group gave rise to self-consciousness and a questioning of personal resources. Highly socially anxious students reported more distractive factors experienced during verbal presentation of their seminar theme (i.e., lack of and distrust in verbal competence, anticipation of failure, watchfulness for evident signs of anxiety, preoccupation with social comparison and evaluation) than their socially less anxious colleagues. Students who experience more social anxiety do not, however, necessarily show less academic competence than their socially less anxious counterparts (e.g., La Greca, Lopez, 1998). We thus proposed that highly socially anxious students would report more distractive factors experienced during oral examination than their classmates with a low level of social anxiety but the two groups would not differ in grade obtained in the last oral examination.

METHOD

Participants

There were 368 adolescents included in the sample. The group of early adolescents consisted of seventh- and eighth-graders from 6 nine-year primary schools located in the regions of Celje and Ljubljana (Slovenia). There were 105 seventh-graders and 73 eighth-graders participating in the study. Of these, 91 were females and 87 were males. Mean age of the group of early adolescents was 13.08 years (SD = .66), with an age range from 11.92 to 15.90 years. The group of late adolescents consisted of students who were in years 3 and 4 at the secondary education level. Students from three general secondary schools (called "gymnasiums") and students from four vocational technical schools located in the regions of Celje and Ljubljana participated in the study. Of these, 97 were females and 93 were males.

Mean age of the group of late adolescents was 18.45 years (SD = .76), with the age range from 17.10 years to 21.40 years.

While the Social Anxiety Scale SASA was applied to the whole sample, we were allowed to administer other measures in only a few of the schools participating in the study. Hence only 165 adolescents filled in the questionnaires on adolescent imaginary audience and academic performance. In this subsample, there were 80 early adolescents, 44 males and 36 females, and 85 late adolescents, 41 males, 44 females. Mean age of the two groups in the subsample was 12.97 years (SD = .58) and 18.45 years (SD = .75), for early and late adolescent groups, respectively.

Measures

Social anxiety: The Social Anxiety Scale for Adolescents (SASA, Puklek, 1997; Puklek, Vidmar, 2000) is a Likert-type scale (1 = not at all true about me, 5 = completely true about me) that measures adolescents' worries, fears and avoidance behavior in different social situations (e.g., in peer interaction, at school, on the stage). In the studies where the 36-test-item version of the scale was applied (Puklek, Vidmar, 2000; Puklek Levpušček, 2004), factor analysis yielded two factors: *Apprehension and Fear of Negative Evaluation* (AFNE) and *Tension and Inhibition in Social Contact* (TISC). In the above-mentioned studies 28 items consistently showed satisfactory to high factor loadings on one of the two subscales.

AFNE (15 items) describes adolescent's fears, worries and anticipations of possible negative evaluations by peers and audience (e.g., "I worry about peers talking about me", "During my performance I am afraid of boring the audience"). The internal consistency of the subscale was confirmed in different adolescent age groups, α = .83 (age 12) and α = .89 (age 16) (Puklek, Vidmar, 2000), α = .89 (age 14) and α = .91 (age 18) (Puklek Levpušček, 2004). In addition, AFNE demonstrated good concurrent validity. It correlated positively with the Social Anxiety and Public Self-Consciousness subscales of Feningstein's et al. (1975) Self-Consciousness Scale and with self-perceived general incompetence (Puklek, Vidmar, 2000; Puklek Levpušček, 2004).

TISC (13 items) describe social tension/relaxation, speech or behavior inhibition and readiness for exposure to social interactions (e.g., with known, unknown or opposite-sex peers, in a class discussion). Examples of items: "I am less talkative in a conversation with an unfamiliar peer than he/she is", "I feel vague uneasiness at parties"). The internal consistency of the subscale was confirmed in different adolescent age groups, α = .71 (age 12) and α = .83 (age 16) (Puklek, Vidmar, 2000), α = .82 (age 14) and α = .80 (age 18) (Puklek Levpušček, 2004). TISC correlated positively with the Social Anxiety subscale of Feningstein's et al. (1975) Self-Consciousness Scale and with self-perceived social incompetence (Puklek, Vidmar, 2000; Puklek Levpušček, 2004).

Imaginary audience: The New Imaginary Audience Scale (NIAS, Lapsley, FitzGerald, Rice, Jackson, 1989) is a 42-item Likert-type scale (1 = never, 4 = often) that indicates how often adolescents engage in object-relational ideations. The items indicate adolescents' daydreams about the self and others in the context of relationships in which the adolescent constructs a positive imaginary audience. The authors of the scale found a high internal consistency of the scale (α = .92, Lapsley et al., 1989) and positive correlations with object-relational concerns, like engulfment anxi-

ety, separation anxiety, enmeshment and symbiosis. Likewise, other researchers who used the original as well as the abbreviated version of the scale confirmed its high reliability (e.g., α = .87, Goossens et al., 2002; α = .95, Vartanian, 1997).

As has already been stated in the Introduction section we scrutinized the factor structure of the NIAS and found two types of object-relational ideations that differ in the content of the adolescent's daydreaming. The first NIAS subscale (NIAS-Admiration; 17 items) describes the adolescent's *ideations of being powerful, attractive, skillful and admired by others* (e.g., "being admired because you are funny", "being an important leader"). The second NIAS subscale (NIAS-Influence; 17 items) describes adolescent's *ideation of occupying others' thoughts and affecting their behavior* (e.g., "imagining how others would feel if you were gone", "making people sorry for hurting you"). The two subscales were moderately correlated (r = .52) and showed high correlation with the total NIAS score (r = .88 and .86, respectively). The two subscales also exhibited high internal consistency, α = .87 and .84, for the first and the second subscale, respectively. In further analyses we used the results on the two subscales as well as the NIAS total score (34 items).

Academic performance: Adolescents answered the question: "What was the last grade you obtained in an oral examination?"[3] We chose to ask adolescents only about the last grade (in any subject) because we wanted adolescents to recall subjective experiences in this evaluative situation. Adolescents reported on the intensity of various distractive factors that might have impeded their success at the last oral examination: distrust in verbal competence, intrusion of other thoughts, anticipation of failure, watchfulness for evident signs of anxiety, bad mood, fatigue, and not being prepared for oral examination. The answers were given using a scale 1 = not at all to 6 = a lot. The internal consistency for the seven reported distractive factors was α = .77.

[3] The Slovene students' academic performance is graded from 1 (minimum standards not attained) to 5 (excellent).

Procedure

Parental consent was sought and granted for those adolescents under the age of 18 to participate in the study. The administration of questionnaires took place in classes. Adolescents were told that the aim of the study was to learn more about their social relationships, and their feelings and thoughts about certain social situations. Standard instructions were read aloud. In order to ensure the comprehension of all items, early adolescents answered items in succession, after each item was read aloud by the tester (the second author of the article). The adolescent first filled in the SASA and NIAS, in that order. Then they reported the grade and distractive factors during their last oral examination. Each session lasted 45 minutes in the group of early adolescents and 30 minutes in the group of late adolescents.

RESULTS

Psychometric Analysis of the SASA: Confirmatory Factor Analysis and Internal Consistency

As the first step in statistical analysis we performed confirmatory factor analysis (CFA) on the items of the SASA scale. Table 1 presents the results of the CFA. Three competing a priori models were tested. The first model tested the assump-

Table 1. Goodness of fit values for the a priori models: Social Anxiety Scale for Adolescents (SASA)

Model	χ^2	df	p	χ^2/df	AGFI	NNFI
Null	9263.78	378	0.000	24.507	0.50	0.00
One factor	1637.33	350	0.000	4.678	0.72	0.89
Two factors	921.34	349	0.000	2.640	0.82	0.94

tion that there are no common factors behind variables. The second model was a one-factor model, which tested the assumption that social anxiety represents a unitary construct. The third model was a two-factor model, which tested the assumption that there are two dimensions of social anxiety: apprehension and fear of negative evaluation and tension and inhibition in social contact, which are conceptually distinct (but correlated) constructs.

To evaluate the fit of the a priori models, chi-square (χ^2), chi-square degrees of freedom ratio (χ^2/df), the adjusted goodness-of-fit (AGFI), and non-normed fit index (NNFI) are presented. A comparison of the AGFI and NNFI statistics for the three models suggested that the two-factor model provided a significantly better fit to the data than the null- or one-factor model. Although only NNFI reaches satisfactory value above 0.90, all other indexes indicate best fit of the two-factor model; it provides lowest chi-square and chi-square degrees of freedom ratio and highest AGFI.

Thus, we confirmed a two-factor structure of the 28-item scale SASA, as has already been found in the first validation study with 36 test items (Puklek, Vidmar, 2000).

Like results in previous studies, the SASA and its subscales showed good internal reliability - AFNE: α = .88 (early adolescents), α = .91 (late adolescents), TISC: α = .74 (early adolescents), α = .83 (late adolescents), and SASA total: α = .87 (early adolescents), α = .90 (late adolescents). The correlation between the two SASA subscales was r = .42 and the correlations between the two subscales and total SASA score were r = .90 and .77 for AFNE and TISC, respectively.

Correlations between Social Anxiety and Imaginary Audience

Correlations among social anxiety and the two aspects of positive imaginary audience are presented in Table 2. Adolescents who reported higher fear of negative social evaluation (AFNE) also had higher object-relational ideations. They daydreamed more about their potency and being admired by others and they imagined that they occupy others' thoughts and affect their behavior more than adolescents who reported lower social evaluation concerns and fears. According to Cohen (1988), these correlations had a small ($\geq$ .10 and < .30) to average ($\geq$ .30 and < .50) magnitude. On the other hand, social tension and inhibition (TISC) showed a null correlation with the two aspects of positive imaginary audience.

Age and Gender Differences in Social Anxiety and Imaginary Audience

Age x Gender ANOVAs were performed with social anxiety and positive imaginary

Table 2. Correlations among social anxiety and imaginary audience

	2	3	4	5	6
1. AFNE	.42***	.90***	.27***	.37***	.36***
2. TISC		.77***	.06	.03	.05
3. SASA-Total			.22**	.27***	.28***
4. NIAS-Admiration				.52***	.88***
5. NIAS-Influence					.86***
6. NIAS-Total					

Note. AFNE = Apprehension and Fear of Negative Evaluation; TISC = Tension and Inhibition in Social Contact; SASA = Social Anxiety Scale for Adolescents; NIAS-Admiration = New Imaginary Audience Scale - Ideations of being powerful, attractive, skillful and admired by others; NIAS-Influence = New Imaginary Audience Scale - Ideation of occupying others' thoughts and affecting their behavior

** $p < .01$; *** $p < .001$

audience as dependent variables (see Table 3). Contrary to expectations, early and late adolescents did not differ in self-reports on apprehension and fear of negative evaluation. There were, accordingly, no age differences found in the social tension and inhibition subscale of the SASA. Early and late adolescents also reported positive imaginary audience ideations similarly. Significant effects for gender were found for the SASA-AFNE, SASA total score, and both subscales of positive imaginary audience (NIAS-Admiration and NIAS-Influence). In line with our expectation, females scored higher in fears about negative social evaluation, and had higher social anxiety total scores than males (η^2 = .04 and .02, respectively). Gender differences also appeared in the two patterns of object-relational ideations. Females daydreamed about the importance of their acts to others' thought and behavior more than males (NIAS-Influence, η^2 = .05). Males, on the other hand, reported more fantasy about their potency and being admired by others than females (NIAS-Admiration, η^2 = .10). None of the age by gender interaction effects was significant.

Are Socially Anxious Adolescent Students Less Successful Academically?

In the last part of the analyses, we answered the question on how socially anxious adolescents perceived their performance during the last oral examination and how academically successful they were in comparison with socially less anxious adolescents. Adolescents who scored one-half standard deviation above and below the mean of the two SASA subscales were divided into high and low groups. The comparison between the two groups was then performed using the Student t-test (two tailed). Table 4 shows means and standard deviations of the groups who scored high and low on AFNE and TISC subscales on the following "performance" variables: grade obtained at the last oral examination and seven distractive factors experienced during the examination.

Table 3. Means (M) and standard deviations (SD) of the social anxiety and imaginary audience measures as a function of adolescent group and gender (univariate ANOVAs)

	Adolescent Group			Gender		
	Early	Late	F value	Males	Females	F value
Measures	M(SD)	M(SD)		M(SD)	M(SD)	
Social anxiety			df = 1, 363			df = 1, 363
AFNE	38.34 (11.20)	38.05 (10.79)	.05	36.04 (10.49)	40.24 (11.06)	13.99***
TISC	32.33 (7.37)	33.73 (7.65)	3.05	33.09 (7.54)	33.02 (7.56)	.02
SASA-Total	70.68 (15.95)	71.78 (15.54)	.50	69.13 (15.22)	73.27 (15.98)	6.35*
Imaginary audience			df = 1, 163			df = 1, 163
NIAS-Admiration	39.91 (10.10)	40.33 (9.96)	.25	43.23 (10.77)	36.90 (8.00)	18.43***
NIAS-Influence	33.40 (9.89)	35.06 (8.67)	.99	32.28 (9.84)	36.28 (8.29)	7.98**
NIAS-Total	73.32 (17.56)	75.39 (16.10)	.67	75.52 (18.62)	73.18 (14.72)	.84

Note. AFNE = Apprehension and Fear of Negative Evaluation; TISC = Tension and Inhibition in Social Contact; SASA = Social Anxiety Scale for Adolescents; NIAS-Admiration = New Imaginary Audience Scale - Ideations of being powerful, attractive, and admired by others; NIAS-Influence = New Imaginary Audience Scale - Ideation of occupying others' thoughts and affecting their behavior

*p < .05; **p < .01; ***p < .001

The results showed that the two groups of adolescents (high vs. low in AFNE) did not differ in the academic grade obtained at the last oral examination (t_{103} = 1.08). The two groups, however, differed in the intensity of all distractive factors experienced during oral examination. High scorers on AFNE reported more distrust in verbal competence (t_{105} = 3.58, p < .01, effect size d = .70), intrusion of other thoughts (t_{105} = 2.15, p < .05, d = .41), anticipation of failure (t_{105} = 4.07, p < .001, d = .79), watchfulness for evident signs of anxiety (t_{105} = 4.12, p < .001, d = .80), fatigue (t_{105} = 2.06, p < .05, d = .40), bad mood (t_{105} = 3.24, p < .01, d = .62), and they were less prepared for the oral examination (t_{105} = 2.23, p < .05, d = .44) than were adolescents in the low AFNE group.

Just as in the results in academic performance of high vs. low AFNE scorers, the two groups of adolescents who scored high vs. low in social tension and inhibition (TISC) did not differ in the academic grade obtained at the last oral examination (t_{97} = 1.66). Some significant differences between the two groups appeared regard-

Table 4. Means and standard deviations for "performance" variables, by high and low AFNE and TISC groups

	AFNE				TISC			
	Low (n = 53)		High (n = 54)		Low (n = 52)		High (n = 48)	
Variable	M	SD	M	SD	M	SD	M	SD
Grade	3.52	1.35	3.25	1.24	3.55	1.33	3.10	1.34
Distractive factors								
Distrust in verbal competence	2.13	1.24	3.09	1.52	2.29	1.27	3.06	1.33
Intrusion of other thoughts	2.40	1.54	3.00	1.36	2.60	1.58	2.85	1.20
Anticipation of failure	2.51	1.65	3.78	1.57	2.75	1.63	3.38	1.31
Watchfulness for evident signs of anxiety	2.08	1.40	3.26	1.57	2.27	1.52	3.23	1.39
Bad mood	2.57	1.64	3.61	1.70	2.85	1.83	3.21	1.41
Fatigue	2.75	1.73	3.39	1.45	3.02	1.82	2.92	1.43
Not being prepared	3.34	1.88	4.06	1.41	3.63	1.87	3.54	1.40

ing the reports of distractive factors during oral examination. High scorers on TISC reported more distrust in verbal competence ($t_{105} = 2.98$, $p < .01$, $d = .59$), anticipation of failure ($t_{105} = 2.10$, $p < .05$, $d = .43$), and watchfulness for evident signs of anxiety ($t_{105} = 3.29$, $p < .01$, $d = .66$) than did adolescents in the low "social tension and inhibition" group.

Effect sizes (d) were mostly in the range of .40 to .79, revealing that differences between socially anxious groups in experiencing distractive factors during oral examination were low to moderate.

DISCUSSION

In the study we examined the reliability and validity of the final 28-item version of the SASA in the sample of early and late Slovene adolescents. The second aim of the study was to establish the relations between social anxiety and positive imaginary audience as well as age and gender differences in both constructs. We also investigated the relation of social anxiety to students' performance in an academically evaluative situation.

Confirmatory factor analysis validated the two-factor structure of the 28-item scale SASA. Apprehension and Fear of Negative Evaluation (AFNE) and Social Tension and Inhibition in Social Contact (TISC) are the two subscales of the SASA that proved their construct validity and internal consistency with the groups of early and late adolescents. As has already been found in the first validation study with 36 test items (Puklek, Vidmar, 2000), the results of the present study support the use of the SASA as a valid and reliable two-component measure of adolescent social anxiety.

The results confirmed the hypothesis of positive relations between social anxiety and positive imaginary audience. Only

social evaluation concerns (AFNE), however, were related to adolescents' imagination of both types of object-relational ideations. Schlenker and Leary (1982) proposed that individuals with high social evaluation concerns are highly motivated to impress others, but they also doubt in their ability to do so. Adolescents who experience higher social evaluation concerns may compensate for their really or imaginarily less successful social self-presentation by creating fantasies about being powerful, attractive, and admired by others or by imagining their influence on others' thoughts and behavior. We may find a support for this interpretation in the New Look theory on adolescent egocentrism (Lapsley, 1993) which suggests that fantasies about being centers of others' attention help adolescents to maintain a feeling of connectedness with others and may also represent a way of coping with adolescents' self-doubts about favorable social image.

Social tension and inhibition were not related to either of the two types of positive imaginary audience. A possible interpretation of this result would be that socially inhibited adolescents are not as much concerned with their public self-image as are adolescents with social evaluation concerns. Consistently with this interpretation, we found in the previous study that the positive relation to public self-consciousness was stronger for the AFNE subscale than for the TISC subscale (Puklek, Vidmar, 2000). Accordingly, late adolescents who reported high social tension and inhibition did not differ from their socially less inhibited mates in their public and private self-consciousness (Puklek Levpušček, 2004).

Adolescent females reported higher levels of apprehension and fear of negative evaluation than males. Likewise, the results of previous studies on adolescent social anxiety consistently prove the fact that adolescent females are more vulnerable than males to concerns about others' negative evaluation of their appearance and behavior (La Greca, Lopez, 1998; Puklek, Vidmar, 2000; Puklek Levpušček, 2004). Gender differences in social anxiety have implications for adolescent social functioning. As adolescent females emphasize intimacy and emotional support more in their friendship than males (e.g., La Greca, Lopez, 1998) their feelings of social anxiety may interfere more substantially with social acceptance and the quality of close friendships and romantic relationship than is the case with adolescent males. For example, La Greca and Lopez (1998) found that socially anxious adolescent girls felt less accepted by their classmates, had fewer close friends and less intimate and emotionally supportive friendships than less socially anxious girls. Boys' social anxiety, on the other hand, was not related to qualities of friendship.

The present study indicates that adolescent females and males did not differ in their feelings of tension and inhibition in social contacts. We may find a consistent pattern of gender similarities and differences in social anxiety, as measured by the SASA across different studies (Puklek, Vidmar, 2000; Puklek Levpušček, 2004). Adolescent females show higher social evaluation concerns than males but, on the other hand, they do not differ from their male counterparts in their tension and inhibition in contingent (face-to-face) social interactions. Possible explanation for this result would be that adolescent females place higher importance on interpersonal relationship than males and are thus more concerned about their social self-image than their male peers. Yet, their

intimacy and self-disclosure in close relationships might also help them to cope with face-to-face interactions (e.g., in a relation with an unknown or opposite-sex peer) competently despite social evaluation concerns.

Significant effects for gender were found for the two types of positive imaginary audience (NIAS-Admiration and NIAS-Influence) but not for the NIAS total score. In accordance with the last finding, authors who used the NIAS as a one-dimensional construct did not find gender differences in imaginary audience ideations (Goossens et al., 2002; Lapsley et al., 1989). The present study, however, suggests that NIAS comprises two types of object-relational ideations that might be differently experienced by males and females. As we found, adolescent females are, more than males, focused on creating ideations of occupying others' thoughts and affecting their behavior (especially in situations where they experience the role of a victim or mourner). On the other hand, adolescent males are, more than females, occupied with ideations of being powerful, attractive, skillful and admired by others. Future studies that comprise adolescent samples from different countries would give us more reliable information on the possible multidimensionality of the NIAS and the specific relations of different types of imaginary audience ideations to gender and other similar constructs (e.g., personal fable: feelings of uniqueness, invulnerability and omnipotence).

Although social evaluation concerns have been viewed as defining features of early adolescence (Inderbitzen-Nolan, Walters, 2000; Puklek, Vidmar, 2000; Puklek Levpušček, 2004) the results of the present study did not support the hypothesis on age differences in apprehension and fear of negative evaluation. The result could reflect a more favorable social self-image in contemporary early adolescents compared with the social self-image of early adolescents to whom we administered the SASA in the late nineties. Indeed, when we compared the mean score (M_1) in early adolescents' AFNE in the present study (mean age was 13.08) and the mean score (M_2) in early adolescents' AFNE in the previous study (Puklek Levpušček, 2004, mean age was about 14) we found a substantial difference in the two means: $M_1 = 38.34$ and $M_2 = 42.03$, respectively. The inspection of mean scores in late adolescents (mean age about 18 in both studies) did not reveal striking differences in the AFNE mean score across the two studies. Further examination of age effects in social anxiety is thus needed to find out whether social evaluation concerns are experienced at the same or at a different rate in early and late adolescents. Longitudinal designs would be particularly useful to determine whether social evaluation concerns are developmentally stable or vary as a function of age. As regards the behavioral component of social anxiety, we confirmed the hypothesis that social tension and inhibition (TISC) would be unrelated to age. This result accords with Schwartz et al.'s finding that generalized social anxiety experienced in "face to face" encounters had a psychobiological predisposition that emerges in early childhood and persists into adolescence (Schwartz et al., 1999). Moreover, we found positive imaginary audience ideations to be equally present in early and late adolescents. The result is in accord with the "New Look" which offers a very broadly defined imaginary audience construct. Imaginary audience may be viewed not just as a failure to distinguish one's own perspective from those of others (Elkind, 1967) but also as a contributor to the psychosocial resilience and coping

(Lapsley, 1993) that allows individuals to cope with the process of self-delineation and individuation through the whole adolescent period.

Although socially anxious students did not appear to be academically less successful than their socially less anxious agemates, this study calls attention to the fact that social anxiety is related to mental distraction and self-focusing during academically evaluative situations. In particular, adolescents with social evaluation concerns reported various distractive factors that they experienced during oral examination. They were distrustful of their verbal competence, had intrusive thoughts, and anticipated failure and were watchful for evident signs of anxiety. They also reported more often than their socially less anxious mates about self-protective distractive factors like fatigue, bad mood and not being prepared for the examination. School psychologists should thus pay more attention to socially anxious students, although they might not show less academic success than their non-anxious schoolmates. Professional help should encompass different techniques that help socially anxious students to develop efficient performance strategies in test situations. Special concern must also be addressed to teachers; they should be advised how to create a context of (oral) assessment in which the perception of the situation as a threat to subjective well-being will be minimized.

In future investigations, the important aim would be to further examine concurrent and discriminant validity of the SASA. A validation study should include measures of adolescent social anxiety that have already established their validity (e.g., SAS-A, La Greca, Lopez, 1998) and other measures of adolescent interpersonal difficulties (e.g., quality of close friendship, peer acceptance, romantic relationships). Discriminant validity of the SASA was partially confirmed in this study by finding that social anxiety did not relate to academic competence (i.e., school grade). Further investigations should explore discriminant validity of the SASA scale by inclusion of self-perception measures in other non-social areas of adolescent functioning (e.g., behavioral conduct, athletic competence). Clinically, it would also be important to find out if SASA might also prove useful in examining certain anxiety disorders such as social phobia, which represents an extreme form of social anxiety.

At last, we would like to emphasize the importance of the present study for educational practice. School professionals should acknowledge difficulties that socially anxious students experience in achievement situations, especially when they are exposed to public scrutiny. Different strategies of mental preparation for socially evaluative situations in schools (e.g., oral examination, speaking in front of classmates), training in performance skills, and the teacher's creation of a non-threatening context in the classroom could be of great help in enabling socially anxious students to feel more relaxed and self-confident when their appearance, behavior and competence are displayed to others.

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PSYCHOMETRICKÉ VLASTNOSTI ŠKÁLY SOCIÁLNEJ ANXIETY PRE ADOLESCENTOV (SASA) A JEJ VZŤAH K POZITÍVNEMU IMAGINÁRNEMU PUBLIKU A AKADEMICKÉMU VÝKONU SLOVINSKÝCH ADOLESCENTOV

M. Puklek Levpušček, M. Videc

Súhrn: Hlavným cieľom tejto štúdie bolo overiť reliabilitu a validitu 28-položkovej verzie Škály sociálnej anxiety pre adolescentov (SASA, Puklek, 1997) vo vzorke mladších a starších slovinských adolescentov. Sledovali sme aj vzťah sociálnej anxiety k pozitívnemu imaginárnemu publiku a výkonu študentov v hodnotiacej akademickej situácii. Konfirmačná faktorová analýza priniesla dvojfaktorovú štruktúru SASA (Porozumenie a strach z negatívneho hodnotenia - AFNE a Tenziu a inhibíciu v sociálnom kontakte - TISC). Len AFNE korelovala (pozitívne) s imaginárnym publikom. Hoci sociálne anxiózni študenti neboli akademicky menej úspešní, študenti, ktorí dosahovali vyššie skóre v subškálach SASA vypovedali o prežívaní vyššej intenzity rozptyľovania počas ústnej skúšky v porovnaní s menej anxióznymi rovesníkmi. Na rozdiel od očakávania, mladší a starší adolescenti sa nelíšili v sociálnej anxiete a predstave o imaginárnom publiku. Adolescentky prejavovali väčšie obavy a strach z negatívneho hodnotenia (AFNE) v porovnaní s adolescentmi. Muži a ženy sa líšili aj v type predstavy o imaginárnom publiku.