

Retrospective Study

Oral but not written test anxiety is related to social anxiety

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Abstract

AIM

To examine the associations of test anxiety (TA) in written *vs* oral exam situations with social anxiety (SA).

METHODS

A convenience sample of 204 students was recruited at the Technische Universität Dresden (TU Dresden, Germany) and contacted *via* e-mail asking to complete a cross-sectional online survey based on established questionnaires. The study protocol was approved by the ethics committee of the TU Dresden. Full data of $n = 96$ students were available for dependent *t*-tests and correlation analyses on the associations of SA and TA respectively with trigger events, cognitions, safety behaviors, physical symptoms and depersonalization. Analyses were run using SPSS.

RESULTS

Levels of TA were higher for fear in oral exams than for fear in written exams ($M = 48.1$, $SD = 11.5$ *vs* $M = 43.7$, $SD = 10.1$ $P < 0.001$). Oral TA and SA were positively correlated (Spearman's $r = 0.343$, $P < 0.001$; Pearson's $r = 0.38$, $P < 0.001$) contrasting written TA and SA (Spearman's $r = 0.17$, $P > 0.05$; Pearson's $r = 0.223$, $P > 0.05$). Compared to written TA, trigger

events were more often reported for oral TA (18.2% vs 30.3%, $P = 0.007$); which was also accompanied more often by test-anxious cognitions (7.9% vs 8.5%, $P = 0.001$), safety behavior (8.9% vs 10.3%, $P < 0.001$) and physical symptoms (for all, $P < 0.001$).

CONCLUSION

Written, but not oral TA emerged being unrelated to SA and may rather not be considered as a typical facet of SA disorder.

Key words: Social anxiety; Derealization; Test anxiety; Depersonalization; Safety behavior

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Core tip: In a convenience student sample, levels of test anxiety (TA) were higher for fear in oral exams than for fear in written exams. Oral TA and social anxiety (SA) were positively correlated, contrasting written TA and SA. Compared to written TA, trigger events were more often reported for oral TA; which was also accompanied more often by test-anxious cognitions, safety behavior and physical symptoms. Results point to overlaps between oral TA and SA. Since written TA appeared unrelated to SA, it may rather not be considered as a typical facet of SA.

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INTRODUCTION

The aim of a deepened understanding of social anxiety (SA) disorder, its putative subtypes and differentiation from other mental disorders has stimulated research in the last decade, *e.g.*, on the relationship of public speaking anxiety with other facets of SA disorder^[1,2]. Broadly, the diagnostic category of SA disorder represents a multi-faceted phenomenon, that spans from more or less isolated social fears to severe anxiety in social situations related to interactions with others and performance in public^[1,3,4]. Results of Hall^[5] and Knappe *et al*^[6] pointed to notable differences between fear of public speaking and test anxiety (TA) on the one hand, and other social fears and SA disorder on the other, namely in terms of age of onset, social anxious cognitions, physical symptoms and increase of self-reported anxiety levels over time. For example, in a community sample of adolescents and young adults, isolated social fears in test situations were unrelated to catastrophic social anxious cognitions, but associated with significant avoidance (though not with moderate/severe impairment), lower comorbidity, behavioral inhibition, and

parental psychopathology as compared to respondents with other performance or interaction related social fears^[6]. Findings suggest that TA might be meaningfully distinguished from SA, and question whether TA is in fact part of the SA spectrum or if it should be better classified as a specific fear or phobia^[3,5,6].

Despite efforts to better understand the relationship of TA and SA disorder, little attention has been paid to the fact that TA can occur in oral and written exams and that these two types of situations imply differing cues for anxiety reactions: A convenience sample of college students preferred written exams over oral exams^[7,8], probably because social interaction is limited in written exams, whereas oral exams demand both performance and social interaction skills.

To better understand the relationship of TA and SA, this study aims to explore similarities and differences in written and oral exams, as well as similarities and differences between both forms of TA and SA.

Some facets of TA and SA have been explored so far: Sarason^[9] hypothesized, that some type of TA is triggered by "quite specific unfortunate experiences, *e.g.*, a traumatizing teacher in the third grade". Accordingly, trigger events may be particularly relevant for TA, whereas for SA, only few of those affected recall a specific event as origin of their fear^[10]. With regard to cognitions, Knappe *et al*^[6] found that fear of taking tests was negatively associated with socially phobic cognitions like "something embarrassing or shameful could happen", "to be ashamed" and "to blush", whereas there was a positive association between catastrophic anxiety cognitions and the majority of social fears. Bögels *et al*^[3] concluded that blushing is a physical, maybe even unique, sign of SA disorder compared with other anxieties. However, they did not differentiate for specific social fears or social situations. Hoyer *et al*^[11] found that symptoms of depersonalization were more frequent in social phobia patients (92%) than in controls (52%).

Overall, based on however limited findings on clinical features, it is suggested that: (1) TA in oral exams is associated with higher levels of SA as compared to written exams; that (2) oral TA is more similar to SA in terms of safety behaviors, cognitions and physical symptoms than written TA; and (3) similar to SA, symptoms of depersonalization/derealization are expected to occur more frequently in oral exams than in written exams.

MATERIALS AND METHODS

Procedure and participants

A convenience sample of 204 students was recruited at the Technische Universität Dresden (TU Dresden), Germany, and contacted *via* email asking to complete an online survey. Students received course credits and/or randomly drawn cinema and bowling vouchers for participation. The ethics committee of the TU Dresden approved the study protocol.

Data from 105 students were not available for

Table 1 Description of full and partial responders

	Complete responders (<i>n</i> = 99) ¹		Partial responders (<i>n</i> = 22) ²		χ^2 test
	<i>n</i>	%	<i>n</i>	%	
Sex					0.290
Males	25	26	8	36.4	
Females	74	74	14	63.6	
Age (M, SD)	22.9 (3.6)		23.0 (2.6)		0.573
Branch of study					0.297
Mechanical engineering	9	9.4	2	9.1	
Psychology	32	33.3	6	27.3	
Sociology	5	5.2	4	18.2	
Medicine	34	35.4	6	27.3	
Architecture	6	6.3	1	4.5	
Biology	7	7.3	1	4.5	
Other	6	6.3	2	9.1	
Degree of study					0.814
Diploma	31	32.3	7	31.8	
Bachelor	33	34.4	9	40.9	
Master	2	2.1	0	0.0	
State exam	33	34.4	6	27.3	
Number of days since last exam					
Written exam (M, SD)	51.1 (69.0)		51.3 (63.5)		0.920
Oral exam (M, SD)	253.7 (342.8)		406.1 (518.5)		0.468
Probable social anxiety disorder					
SSQ	14	14.1	5	22.7	0.317
LSAS-anxiety (M, SD)	15.6 (10.5)		13.0 (10.0)		0.366
LSAS-avoidance (M, SD)	13.6 (10.2)		11.9 (12.1)		0.574
Probable test-anxiety					
Written exam LSAS-anxiety (M, SD)	1.1 (0.8)		0.9 (0.8)		0.804
Written exam LSAS-avoidance (M, SD)	0.2 (0.6)		0.3 (0.6)		0.550
Oral exam LSAS-anxiety (M, SD)	1.8 (1.0)		1.5 (1.1)		0.566
Oral exam LSAS-avoidance (M, SD)	0.2 (0.6)		0.3 (0.9)		0.619

¹Data of additional 3 participants were not used since they did not report any fear or avoidance of social situations and thus were not asked about trigger events, test anxiety, cognitions, behavior, depersonalization and physical symptoms due to skip rules; ²Data of additional 14 participants were not used since they did not give written informed consent. M: Mean; SD: Standard deviation; SSQ: Symptom screening questionnaire; LSAS: Liebowitz Social Anxiety Scale (subscales for severity of social anxiety and avoidance of social situations).

analyses, since e-mail addresses were incorrect ($n = 14$), students did not respond ($n = 55$), or filled in less than 50% of the questionnaire ($n = 36$, 18.9%). There were no systematic differences between participants responding only partly ($n = 22$) and those who responded completely ($n = 99$) (Table 1). *Via* skip rule, only participants who reported anxiety in or avoidance of at least one social situation listed in the Liebowitz Social Anxiety Scale (LSAS) (see below) were asked about trigger events, TA, cognitions, behavior, depersonalization and physical symptoms. Indication of TA based on the PAF [Prüfungangstfragebogen, (TA Questionnaire), see below] was not required as a necessary condition (*i.e.*, no skip rule when no TA was reported) because Knappe *et al.*^[6] observed that fear of taking tests occurred independently from SA but not vice versa. Three subjects were excluded because they skipped the survey after indicating no fear or avoidance of social situations. Accordingly, analyses were based on $n = 96$ subjects with complete data sets. The sample consisted of 23 males (24%) and 73 females (76%), aged 19 to 46 years ($M = 22.9$ years, $SD = 3.6$). Additional information was collected on the target degree ($n = 32$ state examination, $n = 32$ bachelor, n

$= 2$ master, $n = 30$ diploma) and branch of study ($n = 33$ medicine, $n = 31$ psychology, $n = 8$ mechanical engineering, $n = 7$ biology, $n = 6$ architecture, $n = 5$ sociology, $n = 6$ other). Students were also asked to recall any event as a trigger for their anxiety in social situations, oral or written exams.

Measures

SA: The 24-item German self-report Version of the "LSAS"^[12] was administered. Item 17 ("taking a test") was split for detailed assessment of anxiety and avoidance during written or oral exam situations (namely: Taking a written test, taking an oral examination). The 27-item German "Fragebogen zu sozialphobischem Verhalten" [SPV (Questionnaire for Social Phobic Behavior)]^[13] was used to assess social anxious motivated safety behavior, *e.g.*, "I try to behave as normal as possible". Ratings were shown in inversed order for comprehensiveness with other measures.

TA: The German questionnaire "Prüfungangstfragebogen" [PAF (TA Questionnaire), 20 items]^[14] was used to assess severity of TA. In addition, generic items asked for trigger events for fear of written and oral exams

Table 2 Reliability of scales and measures ($n = 96$)

		α
Social anxiety	LSAS anxiety subscale	0.914
	LSAS avoidance subscale	0.897
	SPK	0.926
	SPV	0.821
	BSPS-G physical subscale	0.737
	CDS-9 frequency subscale	0.848
Written test anxiety	PAF	0.897
	TAC	0.884
	TAB	0.780
	BSPS-G, physical subscale	0.775
	CDS-9 frequency subscale	0.911
Oral test anxiety	PAF	0.906
	TAC	0.888
	TAB	0.811
	BSPS-G, physical subscale	0.756
	CDS-9 frequency subscale	0.919

α : Cronbach's α ; LSAS: Liebowitz Social Anxiety Scale; SPV: FragebogenzusozialphobischemVerhalten (Questionnaire for Social Phobic Behavior); BSPS-G: Brief Social Phobia Scale, German Version; CDS-9: Cambridge Depersonalisation Scale; PAF: Prüfungsangstfragebogen (test anxiety questionnaire); TAC: Test anxious cognitions (generic questionnaire); TAB: Test anxious coping and safety behavior (generic questionnaire).

separately, as well as for test-anxious cognitions (TAC, 10 items) and test-anxious coping and safety behavior (TAB, 17 items). The subscale "physical symptoms" of the German "Brief Social Phobia Scale" (BSPS-G, 4 items)^[15] was used to assess bodily symptoms of TA. All instructions were slightly modified to allow for separate self-assessment in written and oral exams.

Symptoms of depersonalization/derealization:

The German version of the "Cambridge Depersonalisation Scale 9" (CDS-9, 9 items)^[16] was used to assess symptoms of depersonalization/derealization. The instruction was slightly modified for separate assessment with regard to social situations, as well as written and oral exams. The items were presented following the numerical order of the full CDS (in contrast to Michal *et al.*^[16]). To increase reasonableness of the questionnaire, the duration scale of the CDS-9 was omitted.

The PAF, TAB, TAC, BSPS-G und CDS-9 were administered twice for separate assessments in oral and written TA situations. Internal consistencies (Cronbach's α) for scores of all modified scales ranged between 0.737 and 0.919 (Table 2). Convergent and discriminant validity of all modified scales were explored based on their correlation patterns, indicating sufficient validity (Table 3).

Statistical analysis

Dependent *t*-tests for paired samples were used to compare mean values of the number of trigger events, TA, test-anxious cognitions, test-anxious coping and safety behavior, symptoms of depersonalization/derealization and physiological symptoms (blushing, palpitation, tremor and sweating) in written exams to

oral exams. Associations of SA (based on LSAS) with TA during written exams and TA during oral exams (based on PAF) were compared using Steiger's Z ^[17], which allows to compare overlapping correlations. In absence of normally distributed data, Spearman correlations were computed. Pearson correlations were additionally computed since they are necessary for the computation of Steiger's Z . The correlations were similar and therefore the Pearson correlations were compared within a sample using Steiger's Z . Analyses were run using SPSS^[18]. A Bonferroni correction ($\alpha_{\text{corr}} = 0.025$) was applied for analyses on safety behaviors to account for multiple testing (*i.e.*, comparison between SA and oral TA; comparison between SA and written TA). It was not applied for explorative analyses, where a higher α error can rather be tolerated than an increase of the β error^[19].

RESULTS

Frequencies and associations of SA and written or oral TA

Isolated oral and written TA was reported in 14.6% ($n = 14$) and 2.1% ($n = 2$), respectively, of the sample. More than one third of the sample reported at least one condition out of SA, written TA or oral TA (36.5%, $n = 35$). Symptoms of depersonalization/derealization occurred most often in social situations ($n = 13$; 13.5%), followed by oral exams ($n = 11$; 11.5%) and written exams ($n = 8$; 8.3%) (Table 4).

As expected, SA was unrelated to written TA (Spearman's $r = 0.17$, $P > 0.05$; Pearson's $r = 0.22$, $P > 0.05$), but positively related to oral TA (Spearman's $r = 0.34$, $P < 0.001$; Pearson's $r = 0.38$, $P < 0.001$). Correlations of SA with written vs oral TA however did not differ (Steiger's $Z = -1.18$, $P > 0.05$).

Comparisons between written and oral TA

Analyses revealed substantial differences between oral and written TA in terms of trigger events, clinical characteristics and physiological symptoms (Table 5). Specifically, trigger events were more often reported for oral TA (30.3%) than written TA (18.2%) [$t(95) = 2.78$, $P = 0.007$]. As expected, the level of TA was higher among those reporting fear of oral exams than in those with fear of written exams (Table 5) [$t(95) = -4.86$, $P < 0.001$]. Further, TAC and TAB were reported more often for oral TA than for written TA. For symptoms of depersonalization/derealization, no differences between oral and written TA were observed. Physical symptoms were reported more often for oral TA than for written TA.

Comparison between SA, and written and oral TA

SA, based on the LSAS, was positively related to safety behaviors (Spearman's $r = 0.64$, $P < 0.001$; Pearson's $r = 0.70$, $P < 0.001$). Both forms of TA were moderately associated with safety behaviors (written: Spearman's r

Table 3 Convergent and discriminant validity of scales and measures

	LSAS anxiety subscale	LSAS avoidance subscale	PAF written	PAF oral	TAC written	TAC oral	TAB written	TAB oral
Oral PAF	0.379 ^d	0.304 ^d	0.663 ^d	1	0.625 ^d	0.806 ^d	0.332 ^d	0.442 ^d
Written PAF	0.223 ^b	0.167	1	0.663 ^d	0.770 ^d	0.650 ^d	0.467 ^d	0.236 ^b
SPK	0.673 ^d	0.592 ^d	0.283 ^d	0.453 ^d	0.425 ^d	0.562 ^d	NE	NE
SPV	0.701 ^d	0.678 ^d	0.425 ^d	0.524 ^d	NE	NE	0.301 ^d	0.412 ^d
CDS-9 frequency subscale social	0.338 ^d	0.320 ^d	0.323 ^d	0.311 ^d	NE	NE	NE	NE
CDS-9 frequency subscale written	0.274 ^d	0.306 ^d	0.398 ^d	0.383 ^d	NE	NE	NE	NE
CDS-9 frequency subscale oral	0.390 ^d	0.341 ^d	0.337 ^d	0.488 ^d	NE	NE	NE	NE
Tremor social	0.322 ^d	0.352 ^d	0.258 ^b	0.223 ^b	NE	NE	NE	NE
Sweating social	0.351 ^d	0.298 ^d	0.200	0.311 ^d	NE	NE	NE	NE
Blushing social	0.242 ^b	0.115	0.218 ^b	0.278 ^d	NE	NE	NE	NE
Palpitation social	0.379 ^d	0.351 ^d	0.206 ^b	0.313 ^d	NE	NE	NE	NE
Tremor written	0.294 ^d	0.141	0.640 ^d	0.452 ^d	NE	NE	NE	NE
Sweating written	0.096	0.028	0.484 ^d	0.361 ^d	NE	NE	NE	NE
Blushing written	-0.099	-0.094	0.137	0.201 ^b	NE	NE	NE	NE
Palpitation written	0.168	0.050	0.657 ^d	0.488 ^d	NE	NE	NE	NE
Tremor oral	0.289 ^d	0.151	0.488 ^d	0.608 ^d	NE	NE	NE	NE
Sweating oral	0.182	0.048	0.291 ^d	0.434 ^d	NE	NE	NE	NE
Blushing oral	0.120	-0.060	0.189	0.332 ^d	NE	NE	NE	NE
Palpitation oral	0.172	0.054	0.499 ^d	0.612 ^d	NE	NE	NE	NE

Pearson's correlation coefficient ^b $P < 0.005$, two-tailed ^d $P < 0.001$, two-tailed. NE: Not estimated; CSD-9: Cambridge Depersonalisation Scale-9 items; LSAS: Liebowitz Social Anxiety Scale; PAF: Prüfungsangstfragebogen. SPK Fragebogen zu sozialphobischen Kognitionen; SPV Fragebogen zu sozialphobischem Verhalten.

Table 4 Frequencies of social anxiety, written or oral test anxiety and depersonalization ($n = 96$)

Social anxiety disorder and test anxiety	<i>n</i>	%
Overall		
Social anxiety disorder	12	12.5
Written test anxiety	13	13.5
Oral test anxiety	28	29.2
Isolated conditions		
Social anxiety disorder	4	4.2
Written test anxiety	2	2.1
Oral test anxiety	14	14.6
Co-occurrence of conditions		
Written and oral test anxiety	7	7.3
Social anxiety disorder and written test anxiety	1	1
Social anxiety disorder and oral test anxiety	4	4.2
Social anxiety disorder, written and oral test anxiety	3	3.1
Symptoms of depersonalization/derealization		
Social situations	13	13.5
Written exams	8	8.3
Oral exams	11	11.5

Social anxiety disorder was assessed using the anxiety subscale of the LSAS and test anxiety was assessed using the PAF. Symptoms of depersonalization/derealization were measured using the CDS-9. LSAS: Liebowitz social anxiety scale; PAF: Prüfungsangstfragebogen.

= 0.31, $P < 0.001$; Pearson's $r = 0.28$, $P < 0.001$; oral: Spearman's $r = 0.42$, $P < 0.001$; Pearson's $r = 0.45$, $P < 0.001$); these correlations were however lower than the correlation between LSAS and safety behaviors and did not differ (written TA: Steiger's $Z = 3.22$, $P < 0.001$; oral TA: Steiger's $Z = 2.23$, $P < 0.005$; written compared to oral TA: Steiger's $Z = -0.93$, $P > 0.05$).

Symptoms of depersonalization/derealization were similarly frequent across all conditions (scale: 0 = never

to 4 = constantly; SA: $M = 3.7$, $SD = 2.7$, oral TA: $M = 3.2$, $SD = 5.2$, written TA: $M = 2.7$, $SD = 1.9$), and only the difference between SA and written TA was statistically significant [$t(95) = 2.95$, $P = 0.004$].

DISCUSSION

Compared to written TA, SA was more closely related to oral TA and oral TA was triggered more often by an event and accompanied more often by test-anxious cognitions, safety behavior and physical symptoms. In terms of safety behaviors and symptoms of depersonalization/derealization, TA conditions and SA were quite similar. Hence, both the differences between TA conditions and associations between oral TA with SA indicate that SA and oral TA are overlapping entities.

Notably, TA in oral exams was associated with SA, unlike with TA in written exams. Hence, TA seems to be a heterogeneous phenomenon that comprises of different types of exam situations which are more or less social in nature. In fact, oral test situations could be presumed as social situations that require social skills, interaction and communication with others and that may elicit fear of negative evaluation. Further, oral exams are difficult to predict and to control, similar to social situations in general. In contrast, written test situations do not necessarily include interacting with others, and often follow familiar structures or schedules. Written exams may thus elicit lower levels or even no SA. Accordingly, Fehm *et al.*^[20] reported higher levels of prolonged rumination about past social situations (*i.e.*, post-event processing) in interaction-related social situations as compared to performance-related social situations. When written exams are

Table 5 Clinical correlates of test anxiety in written and oral exams (*n* = 96)

	Test anxiety		Δ (SD)	95%CI	df	<i>t</i>	<i>P</i>
	Written	Oral					
	M (SD)	M (SD)					
Test anxiety	43.66 (10.12)	48.12 (11.52)	-4.46 (8.98)	(-6.28, -2.64)	95	-4.86	< 0.001
Test-anxious cognitions	20.02 (7.89)	21.72 (8.49)	-1.69 (4.71)	(-2.65, -0.74)	95	-3.53	0.001
Test-anxious behavior	39.00 (8.99)	44.57 (10.34)	-5.57 (6.74)	(-6.94, -4.21)	95	-8.11	< 0.001
Any trigger event (<i>n</i> , %)	18 (18.2%)	30 (30.3%)	-12 (-)	(0.036, 0.214)	95	2.775	0.007
Symptoms of DP/DR	2.71 (4.71)	3.167 (5.22)	-.46 (2.85)	(-1.04, 0.12)	95	-1.58	0.118
Blushing	0.27 (0.62)	1.17 (1.19)	-0.90 (1.00)	(-1.10, -0.69)	95	-8.78	< 0.001
Palpitation	1.47 (1.05)	2.11 (1.11)	-0.65 (0.78)	(-0.80, -0.49)	95	-8.1	< 0.001
Tremor	0.70 (0.95)	1.33 (1.26)	-0.64 (0.94)	(-0.83, -0.45)	95	-6.61	< 0.001
Sweating	1.22 (1.05)	1.81 (1.14)	-0.59 (0.87)	(-0.77, -0.42)	95	-6.72	< 0.001

All values represent raw, non-standardized scores. Test anxiety was measured using the PAF. Test-anxious cognitions were assessed using a generic questionnaire. Test-anxious coping and safety behavior was assessed using a generic questionnaire. Symptoms of depersonalization/derealization were measured with the CDS-9. Blushing, palpitation, tremor and sweating were assessed using the respective item of the BSPS-G. *P* two-tailed at *P* < 0.05; CI: Confidence interval; df: Degrees of freedom; *t*: *t*-value; DP/DR: Symptoms of depersonalization/derealization; PAF: Prüfungsangstfragebogen; BSPS-G: German "Brief Social Phobia Scale".

perceived as aversive, this may be related to other factors than to SA, such as inefficient study skills and/or test-taking skills, intolerance of uncertainty^[21], avoidance temperament^[22], perfectionism^[23] or low self-efficacy. Nonetheless, cognitive interference may affect performance in both written and oral exams^[24].

Findings need to be considered in light of some limitations: The limited convenience sample (*n* = 96) with overrepresentations of students of psychology and medicine did not allow for analyses on isolated conditions. Though standardized or structured measures are preferred for a more comprehensive evaluation, indications of SA and TA were deduced from established self-report questionnaires (LSAS and PAF) which were modified for separate evaluations of anxiety in oral vs written exams. Rates for SA were however in line with population-based data in similar age ranges^[6]. Given the limited sample size and the absence of normally distributed data for some variables, multivariate statistics were not applied. Statistical analyses based on correlation analyses and dependent *t*-tests for paired samples were sufficient for testing hypotheses and for the exploration of similarities and differences in written and oral exams, as well as of similarities and differences between both forms of TA and SA. For larger samples with independent assessments for written and oral tests, ANOVA models may be more adequate. All questionnaires were conceptualized as paper-pencil-measures but administered in a web-based format. Internal consistencies for the modified scales were however medium to high. In addition, putative influences on TA like stereotype threat or language difficulties, perceived difficulty or relevance of the exams, or indicators of performance (*i.e.*, grades, results of previous exams) were not assessed.

The similarities and differences of oral and written TA with SA again support the conceptualization of SA as a multi-faceted phenomenon. Because of the notable differences between oral and written TA in terms of

trigger events, test-anxious cognitions, safety behavior and physical symptoms, it may be concluded that TA could be rather used to describe anxiety in oral exams than in written exams, similar to the recently introduced DSM-5 "performance only" specifier for SAD where SA is limited to speaking or performing in public^[1]. Further differentiation of situation-specific types of TA would allow clarifying the facets of TA and their relationships to SA.

COMMENTS

Background

The diagnostic category of social anxiety (SA) disorder spans from more or less isolated social fears to severe anxiety in social situations related to interactions with others and performance in public. Studies so far pointed to notable differences between fear of public speaking and test anxiety (TA) on the one hand, and other social fears and SA disorder on the other. Findings suggest that TA might be meaningfully distinguished from SA. Some suggest even an alternative diagnostic classification of TA apart from the SA spectrum, for example as a specific fear or phobia.

Research frontiers

Little attention has been paid to the fact that TA can occur in oral and written exams and that these two types of situations imply differing cues for anxiety reactions. More details on the clinical features may help to inform the diagnostic classification of TA.

Innovations and breakthroughs

Compared to written TA, SA was more closely related to oral TA and oral TA was triggered more often by an event and accompanied more often by test-anxious cognitions, safety behavior and physical symptoms. In terms of safety behaviors and symptoms of depersonalization/derealization, TA conditions and SA were quite similar.

Applications

Because of the notable differences between oral and written TA, it may be concluded that TA could be rather used to describe anxiety in oral exams than in written exams, similar to the recently introduced DSM-5 "performance only" specifier for SA disorder.

Terminology

TA refers to excessive stress, marked anxiety or fear and discomfort during

and/or before taking a test or examination. Associated symptoms include physiological over-arousal, tension and somatic symptoms, cognitive symptoms such as worry, dread, fear of failure, and catastrophizing of anticipated consequences of the test situation.

Peer-review

Nice little study with a defined focus.

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