Characteristics of and treatment outcome in inpatients with emetophobia and other specific phobias

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ABSTRACT

Emetophobia refers to a fear that oneself or others might vomit and is classified as a specific phobia in current diagnostic manuals. However, it is a relatively unknown and understudied mental disorder. Although it has been speculated that emetophobia might differ from other specific phobias (e.g., in terms of severity), studies on this are virtually non-existent. Thus, this retrospective study analyzed data at admission and discharge from 70 persons with emetophobia and 40 persons with other specific phobias who received a cognitive behavioral therapy-oriented, multimodal inpatient treatment (76.4 % female; mean age 22.7 years, $SD = 12.4$). Nearly 80 % of persons with emetophobia were female, more than half were adolescents and underweight, and the most common comorbid mental disorders were other anxiety disorders and depression. Compared to inpatients with other specific phobias, persons with emetophobia were younger, had a lower body weight, had higher phobic anxiety, and reported lower life satisfaction at admission. Across both groups, body weight increased with a small effect size and anxiety-related, depressive, and general psychopathology decreased and life satisfaction increased with medium-to-large effect sizes. In conclusion, the current study replicates findings about certain features of persons with emetophobia and is the first study that documents differences between persons with emetophobia and persons with other specific phobias, indicating that emetophobia partially represents a more severe type of specific phobia. Despite these differences, persons with emetophobia and persons with other specific phobias achieve similar and substantial symptom reductions during a multimodal inpatient treatment.

1. Introduction

Emetophobia refers to a fear that oneself or others might vomit and is classified as a specific phobia in current diagnostic manuals (American Psychiatric Association, 2013; World Health Organization, 2022). While the earliest case reports date back to the 1940s (Allen and Broster, 1945), it is a relatively unknown and understudied mental disorder (Vandereycken, 2011). Disorder onset typically lies in childhood at around 9–10 years of age (Lipsitz et al., 2001; Meule et al., 2025; Veale and Lambrou, 2006). Prevalence is much higher among females than males (more than 80 % are women) and the most common comorbid mental disorders are other anxiety disorders and depression (Keyes et al., 2018; Meule et al., 2025).

Although these preliminary findings exist, the scarce research on this topic lacks studies that examined a decent number of patients with emetophobia. Specifically, most published studies with patients are single case reports (e.g., Keyes et al., 2020; Maack et al., 2013; McFadyen and Wyness, 1983; Wijesinghe, 1974) and the few studies

that included groups of patients with emetophobia have sample sizes between 20 and 25 persons (Ahlen et al., 2015; Riddle-Walker et al., 2016). Studies that examined larger samples have primarily been cross-sectional questionnaire-based studies in non-clinical samples or online samples with a self-reported but not clinical emetophobia diagnosis (e.g., Petell and Bilsky, in press; Petell et al., 2022; Wu et al., 2015). Thus, there is an urgent need to investigate features of emetophobia and effects of treatment in larger samples of patients.

Another gap in the literature is how emetophobia compares to other specific phobias as emetophobia potentially differs from other specific phobias with regard to epidemiology, etiology, complexity, and treatment options (Keyes et al., 2018). Becker et al. (2007) reported a lifetime prevalence for fear of vomiting of 0.2 %, which was lower than for other specific phobias. However, when examining differences between different specific phobias regarding comorbid mental disorders and severity, impairment, and distress ratings, persons with emetophobia were combined to a larger group with persons with other physical fears (fear of seeing a doctor and fear of contagion). Thus, differences between

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persons with emetophobia and other specific phobias in comorbid mental disorders and severity, impairment, and distress cannot be inferred from that study.

The aims of the current, retrospective study were to examine the characteristics of and treatment outcome in inpatients with emetophobia and to compare these with inpatients with other specific phobias. According to our preregistered protocol (https://osf.io/2sqg5), we tested whether patients with emetophobia differed from patients with other specific phobias regarding age, biological sex, comorbid mental disorders, psychopharmacological medication, questionnaire scores on general psychopathology, depressive symptoms, somatic symptoms, anxiety symptoms, and life satisfaction at admission as well as changes in these variables from admission to discharge, and length of stay.

In addition to these preregistered analyses, we further explored whether groups would differ in body mass index (BMI) at admission and in changes in BMI from admission to discharge. These analyses were added to the originally planned analyses as a substantial subset of persons with emetophobia restricts their food intake because of fear of vomiting, resulting in a low body weight. For example, Veale et al. (2012) reported that 8.5 % of persons with emetophobia were underweight and even 23 % among those who indicated to restrict their food intake due to fear of vomiting were underweight. Because of this, persons with emetophobia can easily be misdiagnosed as having anorexia nervosa or avoidant/restrictive food intake disorder (Russ and Christie, 2023). Thus, we expected that patients with emetophobia would have a lower BMI than patients with other specific phobias at admission and explored whether BMI changed from admission to discharge.

2. Methods

2.1. Sample description

This retrospective study was approved by the ethics committee of the University of Regensburg (no. 24-3787-104) and was preregistered before any questionnaire data were accessed (https://osf.io/2sqg5). Data of 110 inpatients with specific phobia as primary diagnosis (ICD–10 code F40.2; World Health Organization, 2019) who were treated at the Schoen Clinic Roseneck (Prien am Chiemsee, Germany) and discharged between January 2015 and February 2024 were analyzed. Of these, 70 had emetophobia and 40 had other specific phobias (e.g., fear of going to school, test anxiety, phagophobia, blood–injection–injury-type phobia). Most patients were female (Table 1). More than half of the sample were adults (≥18 years, 56.4 %, $n = 62$; 43.6 % adolescents, $n = 48$). Body height and weight were available for 101 persons, of which 52.5 % ($n = 53$) had normal weight or were overweight (≥18.5 kg/m^2) and 47.5 % ($n = 48$) were underweight (<18.5 kg/m^2). The majority of the sample had at least one comorbid mental disorder, the most common of which were affective and anxiety disorders (Table 1).

While persons with specific phobias typically receive outpatient treatment, inpatient treatment is warranted in some cases when outpatient treatment was unsuccessful or when specific phobia symptoms severely impact daily life (e.g., being unable to attend work, school, or university) and the treatment at the hospital adheres to the German S3-guidelines for the treatment of anxiety disorders in terms of admission criteria, treatment elements, and therapy goals (Bandelow et al., 2022). Thus, patients received a cognitive behavior therapy-oriented, multimodal treatment that included several treatment elements such as individual psychotherapy sessions (including exposure therapy with response prevention) and group therapy sessions, when indicated (e.g., for depression or social phobia). Some individual psychotherapy sessions were enhanced by heart rate variability biofeedback to facilitate slow, diaphragmatic breathing as well as to increase awareness of bodily signals and reactions (Leyro et al., 2021). A subset of patients (31.0 %) received psychopharmacological medication, mostly antidepressants (Table 1).

2.2. Measures

2.2.1. Brief Symptom Inventory (BSI)

The German version (Franke, 2000) of the BSI (Derogatis and Melisaratos, 1983) is included in the routine diagnostic assessment at the hospital at admission and discharge. The BSI measures psychopathological symptoms in the past week with 53 items that are answered on a scale from 0 = *not at all* to 4 = *extremely*. Thus, the mean score across all items (general severity index) can range between zero and four with higher scores indicating higher general psychopathology. Internal consistency of the total scale was ω = 0.96 at admission and ω = 0.98 at discharge. Nine subscale scores can also be computed representing somatization, obsessive–compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Internal consistency of the subscales ranged between ω = 0.75–0.89 at admission and ω = 0.85–0.93 at discharge.

2.2.2. Beck Depression Inventory–Revised (BDI–II)

The German version (Hautzinger et al., 2009) of the BDI–II (Beck et al., 1996) is included in the routine diagnostic assessment at the hospital at admission and discharge. The BDI–II measures depressive symptoms severity in the past two weeks with 21 items that are answered on a scale from zero to three with different response labels. Thus, sum scores can range between zero and 63 with higher scores indicating higher depressive symptoms severity. Internal consistency was ω = 0.94 at admission and ω = 0.96 at discharge.

2.2.3. Patient Health Questionnaire (PHQ)

Parts of the German version (Löwe et al., 2002) of the PHQ (Spitzer et al., 1999) are included in the routine diagnostic assessment at the hospital at admission and discharge. The PHQ–9 measures depressive

Table 1
Descriptive and test statistics of categorical variables at admission.

	Full sample			Emetophobia			Other specific phobias			Test statistics	
	N	*n*	%	*N*	*n*	%	*N*	*n*	%	*p*	Odds ratio
Sex (female)	110	84	76.4	70	55	78.6	40	29	72.5	0.492	1.39
Any comorbid mental disorder	110	82	74.6	70	54	77.1	40	28	70.0	0.496	0.69
Any comorbid affective disorder	110	52	47.3	70	34	48.6	40	18	45.0	0.843	0.87
Any comorbid anxiety disorder	110	46	41.8	70	29	41.4	40	17	42.5	0.999	1.05
Any comorbid eating disorder	110	19	17.3	70	15	21.4	40	4	10.0	0.190	0.41
Any comorbid other mental disorder	110	19	17.3	70	12	17.1	40	7	17.5	0.999	1.03
Psychopharmacological medication	–	–	–	–	–	–	–	–	–	0.264	–
None	110	76	69.1	70	47	67.1	40	29	72.5	–	–
Antidepressants	110	29	26.4	70	18	25.7	40	11	27.5	–	–
Other[a]	110	5	4.55	70	5	7.14	40	0	0.00	–	–
Panic attacks	89	70	78.7	57	48	84.2	32	22	68.8	0.109	0.42

[a] All five patients received antipsychotics and one patient additionally received a benzodiazepine.

symptoms severity in the past two weeks with nine items that are answered on a scale from 0 = *not at all* to 3 = *nearly every day* (Kroenke and Spitzer, 2002; Kroenke et al., 2001). Thus, sum scores can range between zero and 27 with higher scores indicating higher depressive symptom severity. Internal consistency of the PHQ–9 was ω = 0.87 at admission and ω = 0.92 at discharge. The PHQ–15 measures somatic symptoms severity in the past four weeks with 15 items that are answered on a scale from 0 = *not bothered at all* to 2 = *bothered at lot* (Kroenke et al., 2002). Thus, sum scores can range between zero and 30 with higher scores indicating higher somatic symptoms severity. Internal consistency of the PHQ–15 was ω = 0.81 at admission and ω = 0.83 at discharge. The GAD–7 measures generalized anxiety disorder symptoms in the past two weeks with seven items that are answered on a scale from 0 = *not at all* to 3 = *nearly every day* (Spitzer et al., 2006). Internal consistency of the GAD–7 was ω = 0.92 at admission and ω = 0.94 at discharge. A single question from the PHQ assesses panic attacks ("In the last four weeks, have you had an anxiety attack—suddenly feeling fear or panic?") and is answered with 0 = *no* or 1 = *yes*.

2.2.4. Satisfaction With Life Scale (SWLS)

The German version (Glaesmer et al., 2011) of the SWLS (Diener et al., 1985) is included in the routine diagnostic assessment at the hospital at admission and discharge. The SWLS measures life satisfaction in general with five items that are answered on a scale from 1 = *strongly disagree* to 7 = *strongly agree*. Thus, sum scores can range between five and 35 with higher scores indicating higher life satisfaction. Internal consistency was ω = 0.89 at admission and ω = 0.94 at discharge.

2.2.5. Other information

Data on diagnoses, age, biological sex, BMI at admission and discharge, psychopharmacological medication during the stay, and length of stay were taken from the clinical records of the hospital. Note that it is generally recommended to use age- and sex-adjusted BMI for children and adolescents because of growth-related changes in body composition (Cole et al., 2000). However, BMI percentiles (obtained with the R package *childsds* using German reference data) were highly correlated with BMI in the current sample ($r = 0.87$ at admission and $r = 0.88$ at discharge) and using BMI percentiles instead of BMI did not change interpretation of results (cf. code available at https://osf.io/z3e4a), which is why we only analyzed BMI to avoid redundancy.

2.3. Data analyses

Data were analyzed with R version 4.3.3 in RStudio version RStudio version 2024.04.1" . Descriptive statistics were computed with the package *summarytools* version 1.0.1. Internal consistencies (McDonald's ω) of items used for composite scores were computed with the package *psych* version 2.4.6.26. As assumptions of the general linear model are often violated when analyzing clinical psychology data, it has been suggested to prefer nonparametric and robust analysis techniques (Field and Wilcox, 2017). Thus, groups were compared on categorical variables at admission (sex, comorbid mental disorders, psychopharmacological medication, panic attacks) with Fisher's exact tests with the package *stats* version 4.3.3. Groups were compared on continuous variables at admission (age, BMI, questionnaire scores) and length of stay with Mann–Whitney *U* tests (also called Wilcoxon rank-sum tests) with the package *stats* version 4.3.3 and effect sizes (r_{rb}) were computed with the package *rstatix* version 0.7.2.

To test changes in BMI and questionnaire scores from admission to discharge, robust mixed models were estimated with the package *robustlmm* version 3.3-1, including the fixed effects of groups (emetophobia vs. other specific phobias), time (admission vs. discharge), and their interaction groups × time as well as a random intercept (i.e., person-level random variability in scores at admission). When the groups × time interaction was not significant, models were rerun without the groups factor (i.e., only including the effect of time and the

random intercept) and Cohen's *d* was calculated as effect size from changes from admission to discharge in the full sample with the package *effectsize* version 0.8.9. As the package *robustlmm* version 3.3–1 does not produce parameter-specific *p*-values, we used the workaround described by Geniole et al. (2019). Specifically, non-robust models were fitted with the package *lme4* version 1.1–35.5, *p*-values were obtained with the package *lmertest* version 3.1-3, and Satterthwaite-approximated degrees of freedom generated by the *lme4* models were combined with the output of the *robustlmm* models.

To test changes in panic attacks (i.e., a binary outcome variable) from admission to discharge, we estimated a generalized mixed model with the package *lme4* version 1.1–35.5, including the fixed effects of groups (emetophobia vs. other specific phobias), time (admission vs. discharge), and their interaction groups × time as well as a random intercept. When the groups × time interaction was not significant, the model was rerun without the groups factor (i.e., only including the effect of time and the random intercept) and Cohen's *g* was calculated as effect size from changes from admission to discharge in the full sample with the package *effectsize* version 0.8.9.

For interpretation of all inferential tests, we used an alpha level of 0.050, that is, we did not adjust for multiple testing. The reason for this is because a simulation study showed that for analyses with two groups with similar group sizes as in the current study, choosing a smaller alpha level leads to a much higher error rate when considering both Type I and Type II error combined than when using an alpha level of 0.050 (Witt, 2019). The data and R code with which results can be reproduced are available at https://osf.io/z3e4a.

3. Results

Persons with emetophobia were younger, had a lower BMI, had higher phobic anxiety, and reported lower life satisfaction than persons with other specific phobias (Table 2). When examining the group differences in age categorically, 51.4 % ($n = 36$) of persons with emetophobia and 30.0 % ($n = 12$) of persons with other specific phobias were adolescents at admission. When examining the group differences in BMI categorically, 56.3 % ($n = 36$) of 64 persons with emetophobia and 32.4 % ($n = 12$) of 37 persons with other specific phobias were underweight at admission. Groups did not differ in sex, comorbid mental disorders, psychopharmacological medication, panic attacks, depressive symptoms, somatic symptoms, generalized anxiety symptoms, and other symptoms, and length of stay (Table 1, Table 2). BMI and questionnaire scores significantly changed from admission to discharge (all *ps* < 0.031; Fig. 1) but these changes were not moderated by groups (all interaction effects groups × time *p* > .050).

4. Discussion

The current study examined characteristics of and treatment outcome in inpatients with emetophobia and compared these to inpatients with other specific phobias. We identified 70 patients who were treated for emetophobia and 40 patients who received treatment for other specific phobias during the same period. This is an interesting finding in itself, as it suggests that when persons with a specific phobia receive inpatient treatment—an uncommon setting for this condition—those with emetophobia are overrepresented in such a sample compared to the overall population of persons with specific phobias. This aligns with a recent study by Veale et al. (in press), which found that while most persons with a specific phobia in a large UK sample received outpatient treatment, emetophobia was disproportionately represented among the few cases that required inpatient care. Thus, although emetophobia is among the least prevalent specific phobias in general, it appears to be one of the most commonly treated phobias in inpatient settings (Meule, in press).

Table 2
Descriptive and test statistics of continuous variables at admission and length of stay.

	Full sample				Emetophobia				Other specific phobias				Test statistics		
	N	M	SD	Range	N	M	SD	Range	N	M	SD	Range	W	p	r_{rb}
Age (years)	110	22.7	12.4	12–75	70	19.0	5.28	12–42	40	29.3	17.6	12–75	834	<0.001	0.34
Body mass index (kg/m^2)	101	20.2	5.18	10.9–40.9	64	18.6	3.70	10.9–31.9	37	22.9	6.22	13.4–40.9	678	<0.001	0.36
Brief Symptom Inventory															
Somatization	92	1.05	0.75	0.00–2.86	59	1.13	0.73	0.00–2.71	33	0.89	0.77	0.00–2.86	1179	0.094	0.18
Obsessive–compulsive	92	1.21	0.78	0.00–3.00	59	1.20	0.78	0.00–3.00	33	1.24	0.79	0.00–2.33	931	0.729	0.04
Interpersonal sensitivity	92	1.32	0.99	0.00–4.00	59	1.32	0.91	0.00–3.50	33	1.31	1.13	0.00–4.00	1036	0.612	0.05
Depression	92	1.23	0.85	0.00–3.33	59	1.27	0.82	0.00–3.33	33	1.18	0.92	0.00–3.17	1055	0.511	0.07
Anxiety	93	1.59	0.85	0.00–4.00	60	1.68	0.85	0.00–4.00	33	1.42	0.83	0.00–3.00	1162	0.168	0.14
Hostility	92	0.82	0.64	0.00–3.20	59	0.78	0.59	0.00–3.00	33	0.90	0.71	0.00–3.20	893	0.510	0.07
Phobic anxiety	92	1.47	1.15	0.00–4.00	59	1.68	1.17	0.00–4.00	33	1.08	1.02	0.00–4.00	1285	0.011	0.27
Paranoid ideation	92	0.91	0.88	0.00–3.40	59	0.90	0.86	0.00–3.40	33	0.92	0.92	0.00–3.40	966	0.951	0.01
Psychoticism	92	0.92	0.80	0.00–3.20	59	1.01	0.82	0.00–3.20	33	0.75	0.75	0.00–2.60	1168	0.112	0.17
General Severity Index	93	1.21	0.72	0.04–4.00	60	1.28	0.73	0.09–4.00	33	1.07	0.68	0.04–2.57	1164	0.164	0.15
Beck Depression Inventory–Revised	92	21.5	11.9	0–54	57	22.7	12.3	2–54	35	19.6	11.2	0–41	1128	0.296	0.11
Patient Health Questionnaire (PHQ)															
Depressive symptoms severity (PHQ–9)	92	10.6	5.73	0–25	58	11.2	5.88	1–25	34	9.58	5.39	0–23	1134	0.232	0.13
Somatic symptoms severity (PHQ–15)	92	11.5	5.15	0–21	58	11.8	4.74	3–20	34	11.0	5.82	0–21	1055	0.576	0.06
Generalized Anxiety Disorder (GAD–7)	92	10.2	5.34	1–21	58	10.8	5.57	2–21	34	9.06	4.79	1–18	1161	0.157	0.15
Satisfaction With Life Scale	91	16.9	6.90	5–31	59	15.5	6.75	5–31	32	19.5	6.49	6–31	610	0.005	0.29
Length of stay (days)	110	61.5	36.5	1–158	70	67.2	39.5	1–158	40	51.4	28.3	2–113	1713	0.052	0.19

4.1. Differences between groups at admission

In line with previous findings (Keyes et al., 2018), nearly 80 % of persons with emetophobia were female and the most common comorbid mental disorders were other anxiety disorders and depression. Yet, the rates of comorbid mental disorders were substantially larger than those reported in other studies as almost 80 % of persons with emetophobia had at least one other mental disorder. This can likely be explained by the fact that inpatients differ from outpatients or persons who do not receive treatment in this regard. Persons with specific phobias rarely seek treatment in general (Niermann et al., 2021) and if they do, outpatient psychotherapy is the treatment of choice. Inpatient treatment is indicated when prior outpatient treatment has been unsuccessful and/or when distress and impairment in daily functioning is severe. Thus, the high comorbidity rates in the current study are not representative for persons with emetophobia in general.

Compared to inpatients with other specific phobias, persons with emetophobia were younger, had a lower body weight, had higher phobic anxiety, and reported lower life satisfaction. The younger age dovetails with the finding that emetophobia typically begins in childhood (Lipsitz et al., 2001; Meule et al., 2025; Veale and Lambrou, 2006) and, therefore, treatment seems to be primarily sought in adolescence and young adulthood. Moreover, it is line with the findings reported by Veale et al. (in press) who also found that adult patients with emetophobia were younger than adult patients with other specific phobias and with studies reporting a negative correlation between age and emetophobic symptomatology (e.g., Petell and Bilsky, in press). Yet, Veale et al. (in press) also found that children receiving treatment for emetophobia were older than children receiving treatment for other specific phobias. Thus, it is currently unclear if such age differences reflect sampling differences and, therefore, may not reflect general differences in age in the overall population of persons with specific phobias.

The lower body weight is in line with the finding that many persons with emetophobia restrict food intake because of fear of vomiting, which may result in them being underweight (Veale et al., 2012). Yet, the rate of underweight persons with emetophobia (56 %) was substantially higher than the rates reported by Veale et al. (2012), which might again be explained by the investigation of a sample of inpatients. That is, these were likely persons whose emetophobic food restriction was so severe

that a more intensive inpatient treatment was required. What this finding further emphasizes is that a person with emetophobia can easily be misdiagnosed as having an eating disorder. Yet, while therapy goals may be similar to those in eating disorder treatment (i.e., normalization of eating behavior and weight gain) and some treatment elements may overlap as well (e.g., having regular meals together with other patients), other treatment elements crucially differ (e.g., as fear of vomiting instead of weight and shape concerns should be addressed). Thus, the current study further highlights the importance of correctly diagnosing a patient presenting with underweight by exploring the reasons that drive restricted food intake.

As fear of vomiting potentially interferes with pervasive aspects in daily life (e.g., eating, traveling), leading to numerous avoidance and safety behaviors that impair daily functioning, it has been speculated that emetophobia may be marked by higher severity, impairment, and distress than other specific phobias (Keyes et al., 2018; Russ and Christie, 2023). The current findings partially support this as they document higher phobic anxiety and lower life satisfaction in persons with emetophobia than persons with other specific phobias, albeit differences in other transdiagnostic psychopathology variables were not found.

4.2. Changes from admission to discharge

Changes from admission to discharge did not differ between persons with emetophobia and other specific phobias. Across both groups, body weight increased with a small effect size and anxiety-related, depressive, and general psychopathology decreased and life satisfaction increased with medium-to-large effect sizes. Thus, an inpatient treatment that combines several psychotherapeutic and other treatment elements effectively reduces phobia-specific but also associated symptoms in persons with severe specific phobias.

4.3. Limitations

Interpretation of the current findings is limited to inpatients with specific phobias treated in Germany and, thus, may not translate to outpatients or persons with specific phobias who do not receive treatment and to countries with different healthcare systems. As mentioned
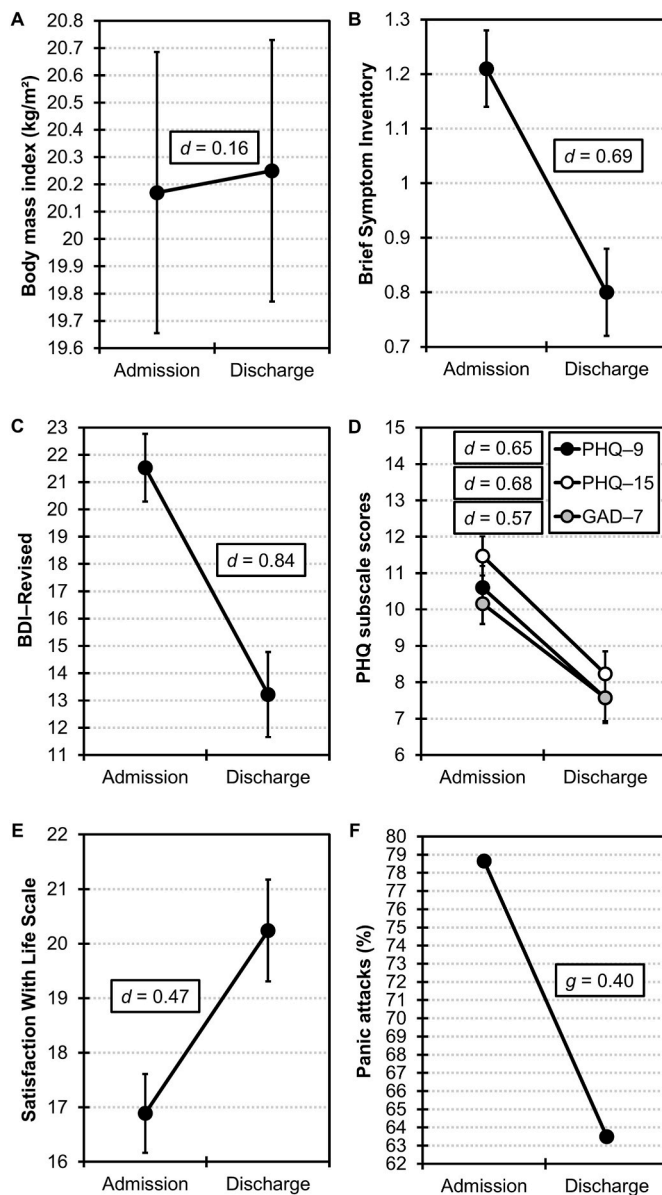
Fig. 1. Means (panels A–E) and percentages (panel F) for (A) body mass index, (B) general severity index of the Brief Symptom Inventory, (C) sum scores of the Beck Depression Inventory (BDI)–Revised, (D) sum scores of Patient Health Questionnaire (PHQ) subscales, (E) sum scores of the Satisfaction With Life Scale, and (F) panic attacks in the past 4 weeks at admission and discharge. Error bars indicate standard error of the mean. Rules of thumb are 0.2 = small effect, 0.5 = medium effect, 0.8 = large effect for Cohen's *d* and 0.05 = small effect, 0.15 = medium effect, 0.25 = large effect for Cohen's *g* (Cohen, 1988).

above, inpatients in the current study likely presented with a higher severity than outpatients with specific phobias and, thus, the rates of comorbid mental disorders and underweight persons likely overestimate the rates in persons with emetophobia in general (Keyes et al., 2018; Veale et al., 2012). While a strength of this study is that persons with emetophobia were clinically diagnosed (instead of relying on self-report), diagnoses were not obtained with a structured clinical interview, which may have also biased the rates of comorbid mental disorders. As this was a retrospective analysis of routine diagnostic assessment data, measures were restricted to questionnaires on more general anxiety-related and other symptoms. Thus, future studies examining characteristics of and treatment outcome in inpatients with emetophobia preferably should employ clinician-rated or emetophobia-specific measures such as the Emetophobia Questionnaire

(Boschen et al., 2013) or the Specific Phobia of Vomiting Inventory (Veale et al., 2013). Finally, the multimodal treatment approach complicates attribution of treatment effects and limits conclusions about specific intervention efficacy. Given the limited number of treatment studies on emetophobia (cf. Boschen and Jones, 2024), future studies that dismantle the effectiveness of single treatment elements are urgently needed.

5. Conclusion

The current study replicates findings about certain features of persons with emetophobia such as a high rate of female, adolescent, and underweight persons and of comorbid affective and anxiety disorders. To the best of our knowledge, this is the first study that documents differences in age, body weight, phobic anxiety, and life satisfaction between persons with emetophobia and persons with other specific phobias, indicating that emetophobia partially represents a more severe type of specific phobia. Despite these differences, persons with emetophobia and persons with other specific phobias achieve similar and substantial symptom reductions during a multimodal inpatient treatment.

CRediT authorship contribution statement

Adrian Meule: Writing – review & editing, Writing – original draft, Visualization, Methodology, Formal analysis, Data curation, Conceptualization. **Eva M. Zisler:** Writing – review & editing, Data curation. **Michael S. Metzner:** Writing – review & editing, Investigation. **Ulrich Voderholzer:** Writing – review & editing, Resources. **David R. Kolar:** Writing – review & editing, Supervision.

Declaration of competing interest

None.

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