

Mass social media-induced illness presenting with Tourette-like behavior

Impact of unconscious intrapsychic conflicts, structural deficits, and maintaining factors

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BACKGROUND

Functional Tourette-like behaviors (FTB) are usually a rare presentation of functional movement disorders (FMD). However, meanwhile, FTB became a global phenomenon presumably spread by numerous influencers on different social media channels including YouTube and TikTok.

But so far, little is known about **predisposing factors** for the occurrence of **mass social media-induced illness (MSMI)**¹ presenting with FTB. This becomes of importance since we are currently faced with an outbreak of this new type of mass sociogenic illness (MSI) which symptoms spread solely via social media. Patients presenting in our specialized outpatient clinic showed similar or even identical symptoms as seen on the German **YouTube channel "Gewitter im Kopf"**² (English: "Thunderstorm in the brain"). Here we present first data on underlying psychic processes including intrapsychic conflicts and structural deficits as well as **timely-related psychological stressors** and **maintaining factors** in patients with MSMI-FTB.

METHODS

Based on a thorough neuropsychiatric examination, and a newly developed semi-structured interview, we prospectively collected data of patients with regard to FTB, underlying psychodynamics and further influencing factors. Using the Operationalized Psychodynamic Diagnostic System (OPD)³, we evaluated rater's perception of the patient to further explore underlying psychic processes including intrapsychic conflicts. Furthermore, we assessed patients' overall maturity of mental functions to determine pre-existing structural deficits, since ability to manage psychological stressors strongly depends on patients' level of structural integration.

Intrapsychic conflicts are conflicting unconscious needs and desires (e.g., dependency and autonomy) while **structural deficits** describe a reduced overall maturity of mental functions and lack of certain basic mental abilities (e.g., affect tolerance or regulation of self-esteem), which help managing psychological stressors.

RESULTS

Sample

- patients with Social Media-induced FTB: $n = 32$
- women: $n = 16$ (50%)
- age: mean = 20,1 Jahre, range = 11-53 Jahre, median = 18 Jahre

Timely-related psychological stressors and maintaining factors

Timely-related psychological stressors (Fig. 1) were identified in 22 patients (68.8%) and maintaining factors (Fig. 2) in all but one (96.9%, multiple responses possible). Of these 11 patients (34.4%) reported displaying FTB on social media as tics/TS; another three patients (9.4%) each stated that they would like to do so, but parents would not allow or they would not be brave enough to do so.

Fig. 1 Timely-related psychological stressors

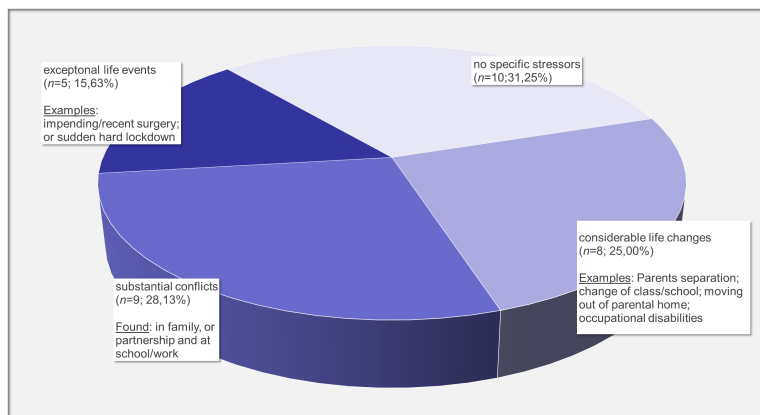
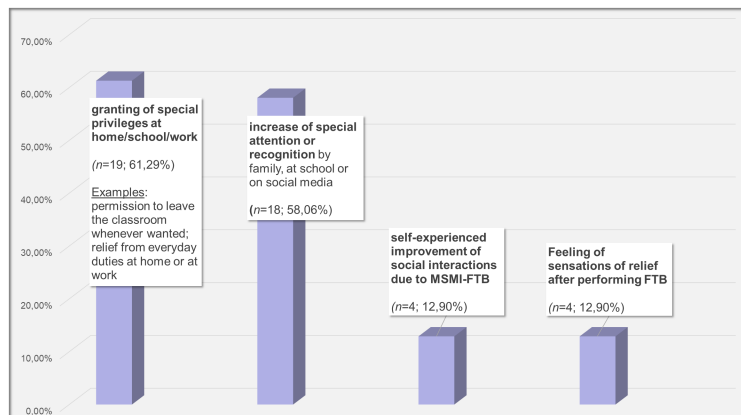


Fig. 2 Maintaining Factors



Underlying psychological processes of MSMI-FTB

In all patients, unconscious intrapsychic conflicts ($n=11$, 34.4%), structural deficits ($n=12$, 65.6%) or both ($n=9$, 28.1%) were found. Fourteen patients (43.8%) exhibited relevant autonomy-dependency-conflicts. Moreover, there was a relationship between the presence of intrapsychic conflicts and structural deficits, respectively, and comorbid psychiatric symptoms. For details see table below.

Table: Relationship between unconscious intrapsychic conflicts, structural deficits and comorbidities in patients with social media-induced functional Tourette-like behavior (FTB) ($n=32$)

	n of patients (%)	Comorbidities									
		Total number, mean (range, median)	ADHD, n (%)	OCB, n (%)	Anxiety, n (%)	Depression, n (%)	ASD, n (%)	Abnormal social behaviour, n (%)	Personality disorder, n (%)	Sleeping problems, n (%)	Suicidal ideation, n (%)
Intrapsychic conflicts only	11 (34.38%)	2 (0-4, 2)	1 (3.23%)	2 (6.3%)	2 (6.3%)	0 (0%)	0 (0%)	5 (15.6%)	0 (0%)	1 (3.1%)	0 (0%)
Structural deficits only	12 (37.50%)	4.3 (1-9, 4)	1 (3.23%)	5 (15.63%)	4 (12.5%)	3 (9.4%)	3 (3.1%)	10 (31.5%)	6 (18.8%)	3 (9.4%)	1 (3.1%)
Co-existing intrapsychic conflicts and structural deficits.	9 (28.13%)	5 (0-8, 5)	1 (3.23%)	5 (15.63%)	5 (15.63%)	7 (21.9%)	2 (12.5%)	8 (25%)	0 (0%)	3 (9.4%)	4 (12.5%)

CONCLUSION

- Underlying psychological and maintaining factors in all patients were identified.
- Based on our data, it is suggested that co-occurrence of several different factors including timely-related psychological factors, unconscious intrapsychic conflicts, and structural deficits predispose for contagion with MSMI-FTB.
- This is in line with the theory of a multimodal etiology in FMD. Treatment of patients with MSMI-FTB should take these predisposing, but also maintaining factors into consideration.