Lessons Learned from COVID-19: Eating Disorders

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Disclosures

- I have no relevant disclosures.

Objectives

- Understand the pre and post COVID-19 rates of adolescent eating disorders
- Describe theories behind why rates have changed and identify patients who may be at risk of switching from disordered eating to eating disorders
- Identify strategies to address increased disordered eating behaviors and prevent support person (both healthcare and family) burnout

Stephanie

- 15yo female with anxiety, depression, and disordered eating presenting to ED with malnutrition. Patient is **a competitive athlete** with long history of restrictive diet to improve performance. She eats more than 3000kcal per day during her sports season and then restricts calories after the season ends. Family reports worsening of anxiety and disordered eating since COVID-19. Family is **currently on the waitlist for an eating disorder facility.**
- Disordered eating behaviors:
  - Counts calories
  - Memorized caloric contents at all restaurants
  - Won't allow parents to make meals for her because they will add things
  - Does not drink anything with calories
  - Anxiety when eating around others
  - Intense fear of gaining weight
  - All thoughts revolve around food
  - Uses laxative as needed to "empty" herself
  - No purging or diuretics
- PMH
  - **Bradycardia→ baseline heart rate 30s,** lightheadedness, evaluated by cardiology
  - Anxiety and depression→ PCP and therapist have been managing. On an anxiolytic
- ROS: + anxiety, weight loss, lightheadedness, irregular menses,

Our Numbers

Date of Service	Number of ED Consults Inpatient
12/1/2019-2/28/2020	27
12/01/2020-2/28/2021	127

Date of Service	Number of Unique Eating Disorder Patients
3/2020-6/2021	117

Table 1 Demographic and clinical characteristics for patients assessed between April 1 and October 31 in 2019 and 2020

	2019 (*n* = 43)	2020 (*n* = 48)	
		COVID-triggered ED (*n* = 19)	Non COVID-triggered ED (*n* = 29)
Age	14.97 (1.62)	14.23 (1.82)	14.84 (1.76)
BMI	18.12 (2.92)	**16.74 (2.42)[a]**	**18.41 (3.50)[b]**
Gender			
Female	32 (74.4%)	14 (73.7%)	26 (89.7%)
Male	10 (23.3%)	4 (21.1%)	1 (3.4%)
Trans Female	0 (0%)	0 (0%)	1 (3.4%)
Trans Male	1 (2.3%)	1 (5.3%)	1 (3.4%)
Diagnosis			
AN restrictive	26 (60.5%)	13 (68.4%)	11 (37.9%)
AN binge-purge	3 (7.0%)	2 (10.5%)	5 (17.2%)
ARFID	7 (16.3%)	2 (10.5%)	5 (17.2%)
Atypical AN	3 (7.0%)	2 (10.5%)	4 (13.8%)
BN	0 (0%)	0 (0%)	1 (3.4%)
UFED	2 (4.7%)	0 (0%)	3 (10.3%)
Other	2 (4.7%)	0 (0%)	0 (0%)
Medically unstable at assessment	**15 (34.9%)[aa]**	**15 (78.9%)[b]**	**16 (55.2%)[c]**
Inpatient admission within 4 weeks of assessment	**18 (41.9%)[aa]**	**16 (84.2%)[b]**	**18 (62.1%)[c]**
Restriction	42 (97.7%)	19 (100.0%)	28 (96.6%)
Over-exercise	20 (46.5%)	**14 (73.7%)[a]**	**13 (44.8%)[b]**
Bingeing (last 4 weeks)	3 (7.0%)	3 (15.8%)	6 (20.7%)
Purging (last 4 weeks)	**1 (2.3%)[aa]**	2 (10.5%)	8 (27.6%)

Data are expressed as mean (SD) or n (%). *AN* anorexia nervosa, *ARFID* avoidant restrictive food intake disorder, *BN* bulimia nervosa, *UFED* unspecified feeding and eating disorder

Superscripts denote statistically significant differences at the $^{x}p < .10$, $^{xx}p < .001$

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Individuals with No Known History of Disordered Eating

- Increased confinement
- Lack of control
- Decreased physical activity
- Decreased social activities
- Increased social media usage

LEADS TO:

- Increased in disordered eating
- Maladapted emotional regulation

Individuals with a Known Eating Disorder

- Increased confinement
- Lack of control
- Decreased frequency and intensity of treatment

LEADS TO:

- Increased in disordered eating
- Increased risk for medical complications
- Increased psychological stress
- Increased caregiver burden

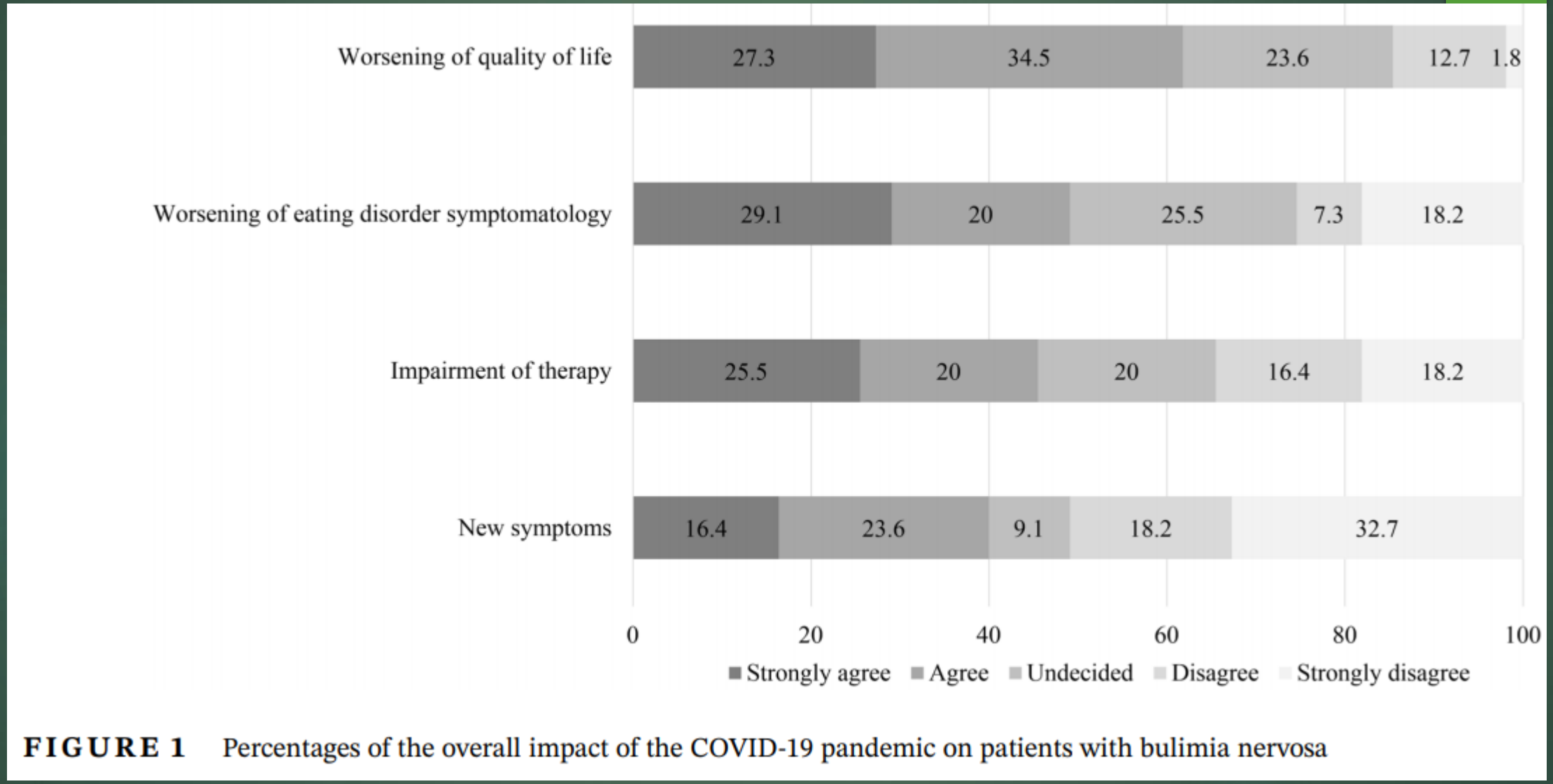

FIGURE 1 Percentages of the overall impact of the COVID-19 pandemic on patients with bulimia nervosa

Schlegl 2020 Eur Eat Disorders Rev

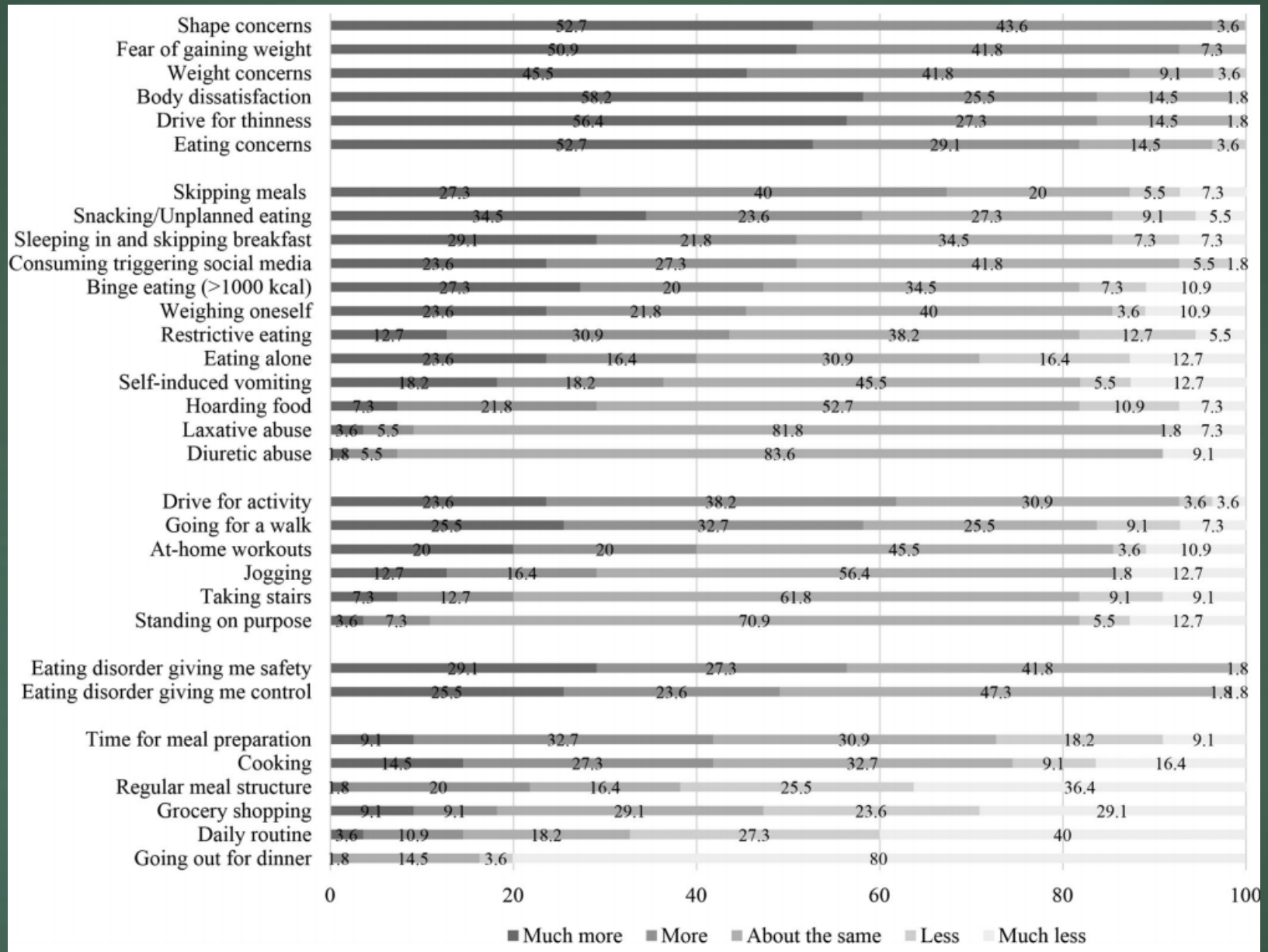

FIGURE 4 Percentages on how eating disorder symptoms and behaviours changed in patients with bulimia nervosa during the

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Changes in Services Secondary to COVID-19

- Adaptation
  - Increase in telehealth
  - Increase in social media
- Negative consequence
  - Increased awareness of self-image/body and self-criticism (anorexia)
- Adaptation
  - Increased telehealth
  - Varying impacts on interdisciplinary care
- Negative consequences
  - Decreased in-person contact with health care team
  - Decreased accountability (e.g. weigh-ins)
  - Increased anxiety about loss of control

TABLE 6 Impact of COVID-19 on eating disorder treatment (United States: *N* = 511, Netherlands: *N* = 510)

Items	Country	Response options			
Choose the best alternative that characterizes your situation over the past 2 weeks?		I have had face-to-face (in person) interactions with my eating disorders treatment provider(s)	I have transitioned to online care with my eating disorders treatment provider(s) (i.e., telehealth)	I have not been able to engage with my eating disorders treatment provider(s) at all	I do not currently receive eating disorders treatment
	US (%)	3	45	6	45
	NL (%)	6	42	5	47
The quality of my treatment in the past 2 weeks has been:		Better than usual	As good as usual	Somewhat worse than usual	Much worse than usual
	US (%)	5	48	40	7
	NL (%)	4	22	56	18
In the last 2 weeks:		I have had to reduce the number of sessions/contacts with my eating disorders treatment provider(s)		I have had at least the same number of sessions/contacts with my eating disorders treatment provider(s)	
	US (%)	23		77	
	NL (%)	35		65	

Termorshuizen JD. Int J. Eat Ds. 2020

Table 2 Markers of care and unadjusted association with ED thoughts and behaviors during the COVID-19 pandemic ($N = 73$)

	Overall ($N = 73$) N (%)	Intrusive ED Thoughts n (%)		p-value	ED Behaviors[a] n (%)		p-value
		Increased ($n = 59$)	No change/ decreased ($n = 14$)		Frequently or daily ($n = 33$)	Rarely or Never ($n = 40$)	
Access							
Accessed via telehealth[†]	64 (88%)	53 (90%)	11 (79%)	0.36	29 (88%)	35 (88%)	0.99
Accessed in-person[†]	16 (22%)	13 (22%)	3 (21%)	0.99	7 (21%)	9 (23%)	0.89
No access	6 (8%)	3 (5%)	3 (21%)	0.08	3 (9%)	3 (8%)	0.99
Any access to care				0.08			0.99
Yes (telehealth and/or in-person)	67 (92%)	56 (95%)	11 (79%)		30 (91%)	37 (92%)	
No	6 (8%)	3 (5%)	3 (21%)		3 (9%)	3 (8%)	
Change in therapy							
Outpatient therapy				0.49			0.66
No change	57 (78%)	47 (80%)	10 (71%)		25 (76%)	32 (80%)	
Stopped during pandemic	16 (22%)	12 (20%)	4 (29%)		8 (24%)	8 (20%)	
Outpatient nutrition				0.99			0.99
No change	66 (90%)	53 (90%)	13 (93%)		30 (91%)	36 (90%)	
Stopped during pandemic	7 (10%)	6 (10%)	1 (7%)		3 (9%)	4 (10%)	
Weight checks by medical provider				0.12			0.22
No change	50 (68%)	43 (73%)	7 (50%)		25 (76%)	25 (63%)	
Stopped during to pandemic	23 (32%)	16 (27%)	7 (50%)		8 (24%)	15 (38%)	
Stopped any treatment				0.38			0.44
Yes	34 (47%)	26 (44%)	8 (57%)		16 (48%)	23 (58%)	
No	39 (53%)	33 (56%)	6 (43%)		17 (52%)	17 (42%)	
Disruption							
Perceived disruption to care				0.36			0.56
Yes	24 (32%)	21 (36%)	3 (21%)		12 (36%)	12 (30%)	
No	49 (67%)	38 (64%)	11 (79%)		21 (64%)	28 (70%)	
Quality							
Quality of treatment in past 3 months				**0.01**			0.51
Better than usual	6 (8%)	2 (3%)	4 (31%)		1 (3%)	5 (13%)	
As good as usual	42 (59%)	34 (59%)	8 (62%)		19 (59%)	23 (59%)	
Somewhat worse than usual	21 (30%)	20 (34%)	1 (8%)		11 (34%)	10 (26%)	
Much worse than usual	2 (3%)	2 (3%)	0 (0%)		1 (3%)	1 (3%)	

† not mutually exclusive – $n = 13$ reported access both via telehealth and in-person

a Composite measure for engaging in restrictive or compensatory behaviors or binging on food in the past 3 months

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Strategies

- Isolation
  - More interactions with community/helping others
- Negative self-talk
  - New emphasis and incorporation of self-care
- Coping
  - Use of social media
- Interdisciplinary communication
  - Use of apps (e.g. Voalte)
  - Interdisciplinary pre-rounding

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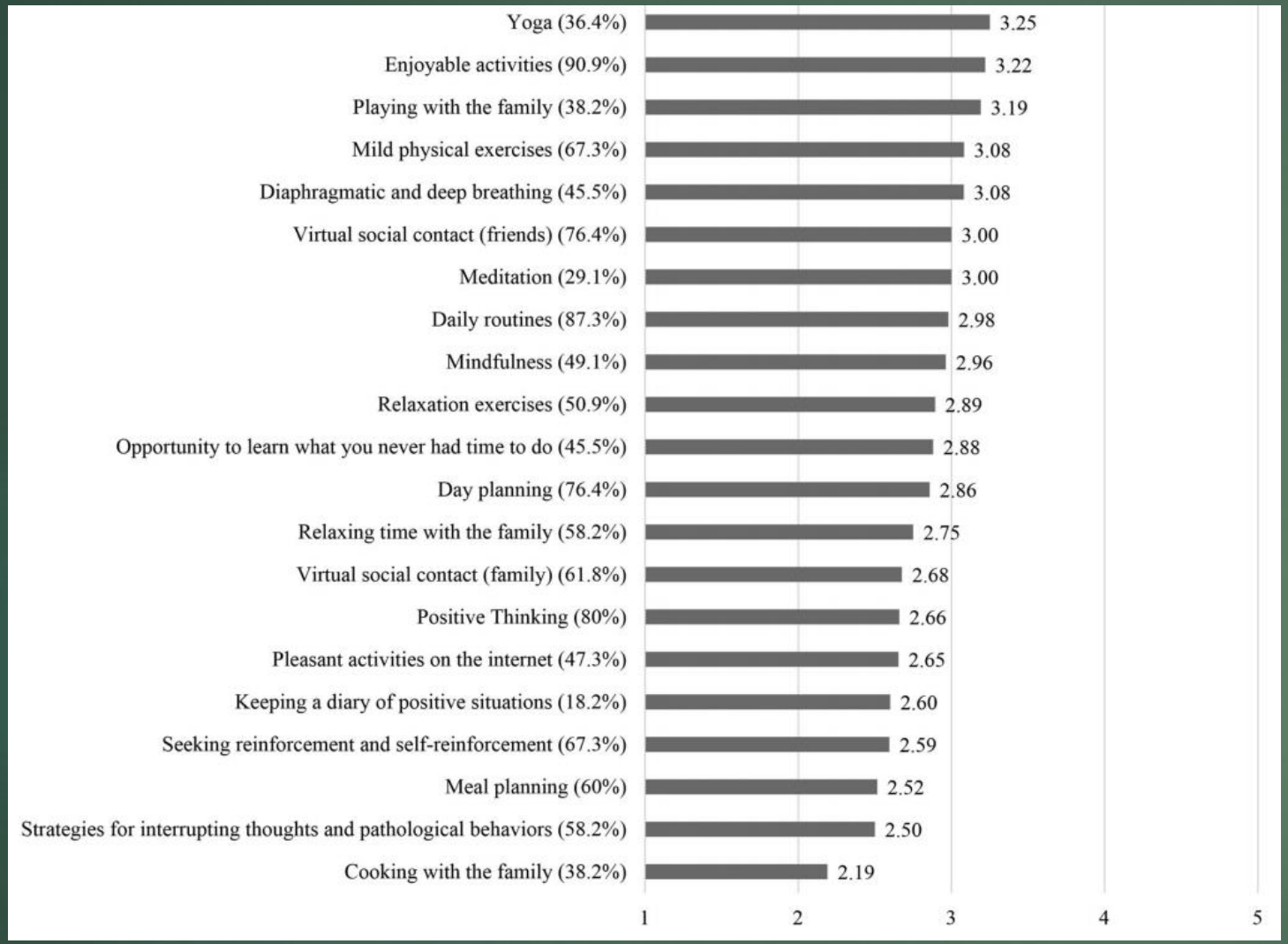
TABLE 3 Positive consequences of the COVID-19 pandemic reported by patients with anorexia nervosa

Theme	Example quote
Reduction in overall eating disorder symptoms/ Taking on responsibility to recover	"Funnily enough, because I can't expect much help from outside at the moment, I got my ED under control quite well."
Reduction in specific eating disorder symptoms	"I voluntarily went into quarantine at home for 2 weeks to stop my excessive exercise behavior."
More flexibility regarding meals and foods	"New resolutions: Snacking twice a week late in the evening, eating difficult foods four times a week, always trying my friend's food if he offers it to me."
"Wake-up call"/Will to live	"The threat from the virus woke me up. Because anorexia and pneumonia just do not get along so well. For me personally, this pandemic opened my eyes in a way and showed me that I want to live."
Trying out therapy content	"A lot of time to rethink, rework and try out content of therapy sessions."
Accepting uncertainty in life	"I understand even better that life cannot be planned. At the beginning of the pandemic, I was very concerned about what to do with all the free time, but it was incredibly good for me to learn how to deal with this uncertainty, not knowing what the new day will bring…I was able to learn to pay attention to my feelings, to accept that there are good and bad days and, above all, to learn to simply live in the day and spontaneously decide what I want and how I want to organize this day."

Bulimia



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Anorexia Nervosa

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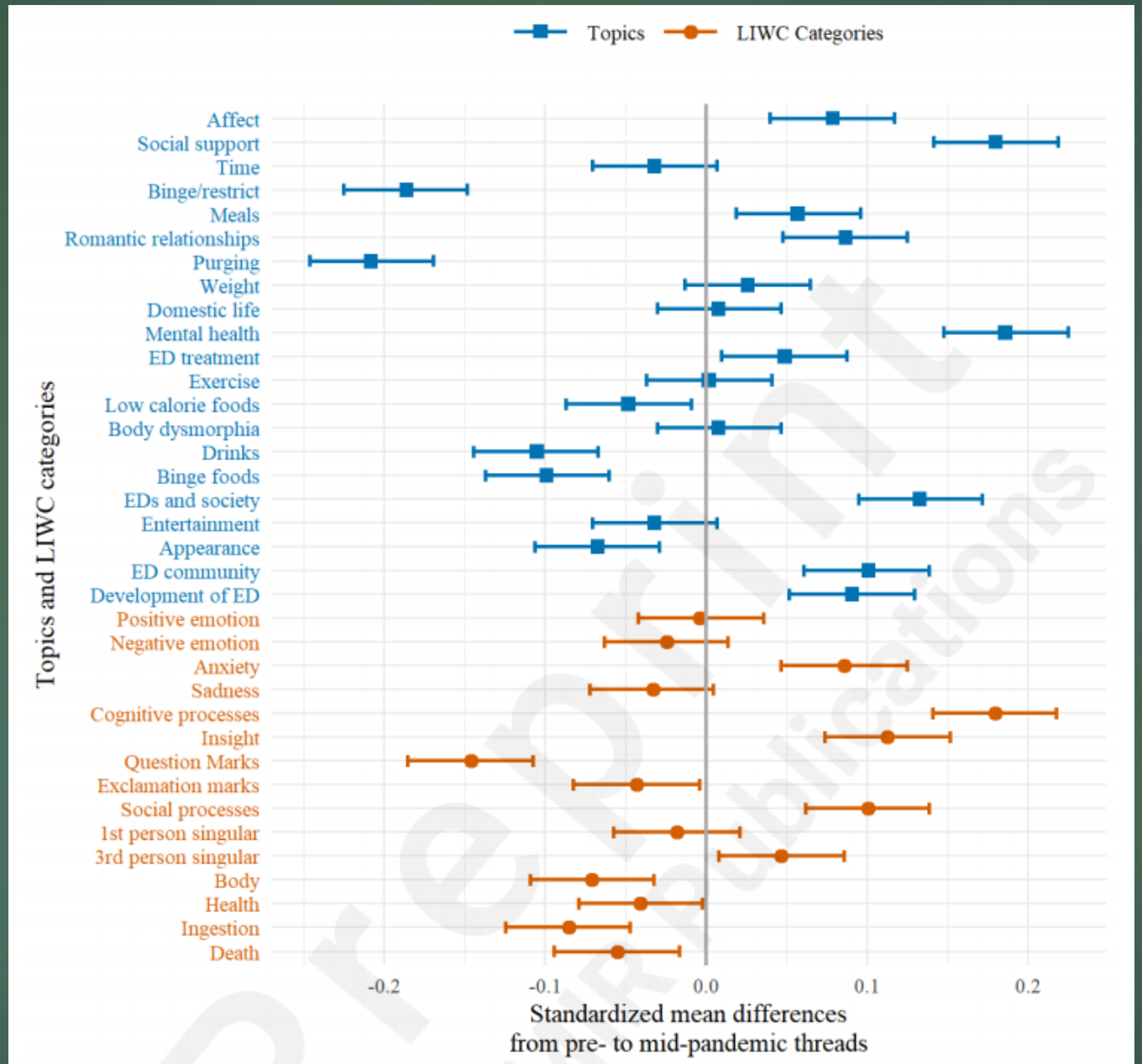

Figure 1. Standardized mean differences of prevalence of topics and LIWC categories from pre- to mid-pandemic threads

Feldhege J. JMIR 2021

TABLE 2 Zoom feature breakdown and utility

Zoom features	Settings	Utility	Helps
White board	Supervision, groups, sessions	Collaboration, interactive participation	Patient engagement
Screen share	Supervision, groups, rounds, sessions, intake	Distribution of materials (e.g., ROIs, group materials, session content)	Patient engagement
Waiting room feature	Groups, intake	Allows individual admit of patients	Confidentiality
Individual messaging	Groups	Allows clinician to message group members privately	Distribution of group materials where everyone receives a different prompt or cue
Group messaging	Groups, rounds	Communication with group/team members passively	Allows for communication without disrupting conversation
Attention tracker	Groups, sessions	Identifies of screen has been idle for >30 s	Allows for clinician to ensure appropriate engagement
Gallery view	Groups, rounds. Intakes	Allows everyone to be seen on the screen	Allows for clinician to monitor reactions
Annotate	Groups, sessions	Allows everyone to write on the screen-share	Useful in doing group activities together
Muting	Groups, intakes	Clinician can mute individual participants	Useful for interruptions to ensure confidentiality
Record	Supervision	Records the session, saves recording to clinician's personal drive	Training

Note: Various features used for both patient care and team cohesion during the transition to remove services.

Datta N. Int J. Eat Dis. 2020

Future Implications

- Support persons being mindful of how changes in perceived control impact adolescents with and without eating disorders
- Youth with eating disorders build resilience
- Providers offering hybrid services
- Improved interdisciplinary care
- Need back-up plans for intensive ED program waitlists

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