Data supplement for Mellentin et al., The Impact of Alcohol and Other Substance Use Disorders on Mortality in Patients With Eating Disorders: A Nationwide Register-Based Retrospective Cohort Study. Am J Psychiatry (doi: 10.1176/appi.ajp.2021.21030274)

Recategorized variables

Highest achieved education

Highest completed education at the match date was extracted from the Danish education registers (Jensen VM, Rasmussen AW. Danish Education Registers. Scand J Public Health. 2011;39(7 Suppl):91-4).

The original categories can be seen here:
https://www.dst.dk/da/Statistik/dokumentation/Times/moduldata-for-uddannelse-og-kultur/hfaudd.

We reclassified highest achieved education into four groups corresponding to the following levels of the International Standard Classification of Education (ISCED 2011): 0–2 (pre-primary, primary and lower secondary education), 3–4(upper secondary education), 5–6 (Short cycle tertiary/bachelor or equivalent) and 7–8 (Master/PhD or equivalent). The reclassification from is defined and provided by Statistics Denmark.

Employment status

Employment status was gathered at match date from the Employment Classification Module of the Danish Income Statistics Register (Baadsgaard M, Quitzau J. Danish registers on personal income and transfer payments. Scandinavian Journal of Public Health. 2011;39(7_suppl):103-5.), which contains the employment status, "where each person is classified by occupation based on their most important source of income of the year. It is determined whether a person is employed, unemployed or outside the labour force seen as a yearly consideration." (citation from the article). The original categories can be seen here:
https://www.dst.dk/da/Statistik/dokumentation/Times/personindkomst/socio13.

We recategorized employment status into Employed (full or part time) Unemployed Student (≥ 18 years) Retired Unknown.

SOCIO13<200 =employed

Socio13 in 210, 220, 330 unemployed

Socio13 in 420, 310 then student

Socio13 in 321, 322, 323 then retired

Other>18 years other/missing (own category)

Children at match time were not considered in this classification.

Civil status

Information on civil status was accessed from the Danish Civil Registration System (Pedersen CB. The Danish Civil Registration System. Scand J Public Health. 2011;39(7 Suppl):22-5.)

The original categories can be seen here: https://www.dst.dk/da/Statistik/dokumentation/Times/cpr-oplysninger/familier-og-husstande/familie-type)

We classified 1,2,3,4,7,8 to cohabiting, 5,10,9 to single, <18 years to child.

TABLE S1. Risk of all-cause and cause-specific mortality in eating disorder patients and matched control subjects with substance use disorder (SUDs) compared with eating disorder patients and matched control subjects without SUDs (sensitivity analysis)[a]

SUD status	All-cause mortality			Deaths from external causes			Deaths from internal causes		
	Adjusted Hazard Ratio[c]	95% CI	p	Adjusted Subhazard Ratio[c]	95% CI	p	Adjusted Subhazard Ratio[c]	95% CI	p
No SUD	1			1			1		
Alcohol only	7.31	5.36, 9.98	<0.001	9.21	5.38, 15.76	<0.001	6.50	4.41, 9.58	<0.001
Cannabis only	2.37	1.22, 4.63	0.0113	5.18	2.25, 11.97	<0.001	1.24	0.40, 3.85	0.7149
Hard drugs only	7.49	5.20, 10.78	<0.001	18.89	12.13, 29.41	<0.001	2.39	1.12, 5.11	0.0247
Alcohol and cannabis	2.07	0.51, 8.46	0.3095	3.62	0.49, 26.58	0.2066	1.56	0.22, 11.18	0.6561
Alcohol and hard drugs	9.31	6.06, 14.31	<0.001	20.37	11.50, 36.07	<0.001	4.37	2.12, 9.05	<0.001
Cannabis and hard drugs	6.27	3.75, 10.48	<0.001	13.73	7.31, 25.81	<0.001	0.61	0.08, 4.39	0.6225
Alcohol, cannabis, and hard drugs	9.91	6.27, 15.67	<0.001	24.10	13.63, 42.61	<0.001	3.55	1.43, 8.78	00061

[a] Eating disorder patients, N=20,759; Control subjects, N=83,036. For case status, eating disorder patients were coded 1 and control subjects were coded 0.

[b] The hard drugs category includes heroin and other opioids, sedative-hypnotics, cocaine and other stimulants, multiple substances, and other psychoactive substances (e.g., hallucinogens, volatile solvents, and designer drugs).

[c] Adjusted for age at the index date, sex, and birth year.

TABLE S2. Risk of all-cause mortality in AN, BN, and USED patients/respective matched controls with SUD compared to AN, BN, and USED patients/respective matched controls without SUD (sensitivity analysis)[a]

Eating Disorder and SUD Status[b]	All-cause mortality		
	Adjusted Hazard Ratio[c]	95% CI	p
Anorexia nervosa			
No SUD	1		
Alcohol and/or cannabis	5.95	3.76, 9.41	<0.001
Hard drugs alone or in combination with alcohol and/or cannabis	9.70	6.62, 14.22	<0.001
Bulimia nervosa			
No SUD	1		
Alcohol and/or cannabis	7.87	4.64, 13.35	<0.001
Hard drugs alone or in combination with alcohol and/or cannabis	12.58	8.09, 19.55	<0.001
Unspecified eating disorder			
No SUD	1		
Alcohol and/or cannabis	3.53	2.18, 5.70	<0.001
Hard drugs alone or in combination with alcohol and/or cannabis	4.40	2.91, 6.65	<0.001

[a] AN patients, N=8,108; AN controls, N=32,432; BN patients, N=5,485; BN controls, N=21,940; USED patients, N=7,166; USED controls, N=28,664. For case status for each of the eating disorder categories, the eating disorder patients with SUD were coded as 1 and eating disorder control subjects were coded as 0.
[b] The hard drugs category includes heroin and other opioids, sedative-hypnotics, cocaine and other stimulants, multiple substances, and other psychoactive substances (e.g., hallucinogens, volatile solvents, and designer drugs).
[c] Adjusted for age at index date, sex, and birth year.