

Supplementary material

Table S-1: Composition of specific dimensions of mood

Cheerfulness	Relaxation	Activation	Sedation	Anxiety
Buoyant	Easygoing	High-spirited	Muddled	Worried
Gleeful	Relaxed	Active	Woozy	Concerned
Happy	Well-balanced	Powerful	Limp	Anxious
Cheerful	In a chilled manner	Overexcited	Inattentive	Excited
Optimistic	Calm	Talkative	Slowed down	Nervous

The dimensions of the moods cheerfulness, relaxation, activation, sedation and anxiety were described by five adjectives each. The questionnaire rated every adjective on a 10-point scale.

Table S-2: Basic characteristics.

	CURP (n = 46)	CERP (n = 36)	Total (n = 82)	p
Demographic data				
Age (years) mean \pm SD	56 \pm 17	57 \pm 15	56 \pm 16	.846 ^b
Female sex, n (%)	22 (48)	16 (44)	38 (46)	.761 ^a
Graduation, n (%)	45	34	79	.759 ^a
Low level	28 (62)	20 (59)	48 (61)	
High level	17 (38)	14 (41)	31 (39)	
Center Hanover/Bochum	26/20	17/19	43/39	
Partner relationship, n (%)	44	34	78	.474 ^a
Single	11 (25)	11 (32)	22 (28)	
In partnership	33 (75)	23 (68)	56 (72)	
Smoking, n (%)	44	35	79	.772 ^a
Current smokers	9 (20)	8 (23)	17 (22)	
Ex-smokers	9 (20)	5 (14)	14 (18)	
Never-smokers	26 (59)	22 (63)	48 (61)	
Alcohol, n (%)	38	33	71	.611 ^a
Excessive alcohol consumption	6 (16)	8 (24)	14 (20)	
Normal alcohol consumption	21 (55)	15 (45)	36 (51)	
No alcohol consumption	11 (29)	10 (30)	21 (30)	
Medication and comorbidity				
Analgesics	42	32	74	
n (%)	21 (50)	16 (50)	37 (50)	1 ^a
Hypnotics	39	30	69	
n (%)	5 (13)	4 (13)	9 (13)	.95 ^a
Tranquilizers	38	29	67	
n (%)	4 (11)	1 (3)	5 (7)	.275 ^a
At least one hypnotic or tranquilizer	39	29	68	
n (%)	8 (21)	4 (14)	12 (18)	.472 ^a
Antidepressants	39	29	68	

n (%)	2 (5)	4 (14)	6 (9)	.213 ^a
Neuroleptics	37	28	65	
n (%)	2 (5)	2 (7)	4 (6)	.773 ^a
At least one psychotropic drug	37	28	65	
n (%)	3 (8)	4 (14)	7 (11)	.426 ^a
Other drugs (e.g. cardiological, endocrinological)	23	21	44	
n (%)	14 (61)	12 (57)	26 (59)	.802 ^a
At least one premedication	36	30	66	
n (%)	30 (83)	25 (83)	55 (83)	1 ^a
Comorbidity, n (%)	30	25	55	
At least one comorbidity	21 (70)	17 (68)	38 (69)	.873 ^a
ASA, n (%)	37	28	65	.918 ^a
1	16 (43)	11 (39)	27 (42)	
2	14 (38)	12 (43)	26 (40)	
≥3	7 (19)	5 (18)	12 (18)	

Basic characteristics. CURP: cluster of uneasy reaction pattern, CERP: cluster of euphoric reaction pattern, a: χ^2 test, b: t-test. Basic demographic data, medication and comorbidity did not differ between study groups.

Table S-3: Medication use

Characteristic	Total (n = 82)	CURP (n = 46)	CERP (n = 36)	p	a: χ^2 test
					b: t-test
Medication					
Analgesics, n (%)	74	42	32	.879	a
Never	37 (50)	21 (50)	16 (50)		
Less than once a week	16 (22)	9 (21)	7 (22)		
Once a week	5 (7)	3 (7)	2 (6)		
Several times a week	9 (12)	4 (10)	5 (16)		
Daily	7 (9)	5 (12)	2 (6)		
Soporifics, n (%)	69	39	30	.512	a
Never	60 (87)	34 (87)	26 (87)		
Less than once a week	4 (6)	3 (8)	1 (3)		
Once a week	--	1 (3)	--		
Several times a week	3 (4)	1 (3)	2 (7)		
Daily	1 (1)	--	1 (3)		
Tranquilizer, n (%)	67	38	29	.629	a
Never	62 (93)	34 (89)	28 (97)		
Less than once a week	--	1 (3)	--		
Several times a week	3 (4)	2 (5)	1 (3)		
Daily	--	1 (3)	--		
Antidepressants, n (%)	68	39	29	.35	a
Never	62 (91)	37 (95)	25 (86)		
Less than once a week	1 (1)	--	1 (3)		
Daily	5 (7)	2 (5)	3 (10)		
Neuroleptics, n (%)	65	37	28	.773	a
No	61 (94)	35 (95)	26 (93)		
Yes	4 (6)	2 (5)	2 (7)		

Other drugs, n (%)	44	23	21	.529	a
Never	18 (41)	9 (39)	9 (43)		
Several times a week	1 (2)	--	1 (5)		
Daily	25 (57)	14 (61)	11 (52)		

Table S-4: Experience with prior short anesthesia

Characteristic	CURP (n = 46)	CERP (n = 36)	total (n = 82)	p
Experience with prior short anesthesia	44	34	78	
At least one short anesthesia in the last five years	32 (73)	24 (71)	56 (72)	.835
Short anesthesia, n (%)	36	28	64	
With propofol	15 (42)	11 (39)	26 (41)	.773
With midazolam	3 (8)	4 (14)	7 (11)	.515
Combination of propofol and midazolam	4 (11)	1 (4)	5 (8)	.264
Reminiscence of the mood before the last short anesthesia, n (%)	28	23	51	.473
More depressed/anxious	15 (54)	10 (43)	25 (49)	
More confident/high-spirited	13 (46)	13 (57)	26 (51)	
Mean \pm SD	6.7 \pm 2.4	6.0 \pm 2.5	6.4 \pm 2.5	.362
Reminiscence of the mood after the last short anesthesia, n (%)	27	22	49	.74
More depressed/anxious	11 (41)	10 (45)	21 (43)	
More confident/high-spirited	16 (59)	12 (55)	28 (57)	
Mean \pm SD	7.8 \pm 2.0	7.5 \pm 2.2	7.6 \pm 2.1	.595

Table S-5: Perception of the endoscopy’s result

Survey after short anesthesia (t2)	Total	CURP	CERP	P	
Patient knows diagnosis after endoscopy, n (%)	38	17	21	.013*	a: χ^2 test
Positive (good) diagnosis	27 (71)	8 (47)	19 (90)		
Prefer not to say	5 (13)	4 (24)	1 (5)		
Unknown	6 (16)	5 (29)	1 (5)		

Table S-6: Overall development of mood

Survey at time point	t1	t2	t3	p			a: χ^2 test
				t1 vs t2	t2 vs t3	t1 vs t3	b: t-test
Worried before endoscopy, n	78	--	60				
Not worried, n (%)	36 (46)	--	27 (45)	--	--	.893	a
Worried, n (%)	42 (54)	--	33 (55)				
Mean \pm SD	7.0 \pm 2.8	--	7.8 \pm 2.4	--	--	.078	b
Mood before / after endoscopy, n	77	78	60				
More depressed/anxious, n (%)	35 (45)	34 (44)	31 (52)	.815	.346	.47	a
More confident/cheerful, n (%)	42 (55)	44 (56)	29 (48)				
Mean \pm SD	6.6 \pm 2.4	8.2 \pm 2.2	6.5 \pm 2.7	0*	0*	.877	b
Index of euphoria, n	82	82	60				
Mean \pm SD	4.6 \pm 2.0	5.8 \pm 1.9	6.2 \pm 2.0	0*	.228	0*	b
Index of unease, n	82	82	60				
Mean \pm SD	3.3 \pm 2.1	2.4 \pm 1.8	2.2 \pm 1.7	.005*	.423	.001*	b

Table S-7: Cluster-associated development of mood

Time point	CURP (n = 46)			CERP (n = 36)			CURP t1 vs CERP t1	CURP t2 vs CERP t2	CURP t3 vs CERP t3	CURP t1 vs CURP t3	CURP t2 vs CURP t3	CERP t1 vs CERP t3	CERP t2 vs CERP t3
	t1	t2	t3	t1	t2	t3							
Worried before endoscopy, n (%)	43		32	35		28	p						
Worried	30 (70)	--	24 (75)	12 (34)	--	9 (32)	.002*		.001*	.048*		.184	
Not worried	13 (30)	--	8 (25)	23 (66)	--	19 (68)							
Mood before endoscopy, n (%)	42												
More depressed/anxious	12 (29)	--	14 (44)	23 (66)	--	17 (61)	.001*		.19	.041*		.175	
More confident/cheerful	30 (71)	--	18 (56)	12 (34)	--	11 (39)							
Mood after endoscopy, n (%)		42			36								
More depressed/anxious	--	22 (52)	18 (56)	--	12 (33)	9 (32)		.091	.061		.074		.13
More confident/cheerful	--	20 (48)	14 (44)	--	24 (67)	19 (68)							

Cluster-associated development of feelings. CURP: cluster of uneasy reaction pattern, **CERP:** cluster of euphoric reaction pattern, * significant with $p < 0.05$, **a:** χ^2 test, **b:** t-test. Worry and the perception of depression /anxiousness and confidence /cheerfulness were asked before, immediately and during recall one week after endoscopy. Furthermore, the reminiscence of the perception was requested immediately and during recall one week after endoscopy. Patients had to remember how they felt before and after endoscopy. About two-thirds of CURP patients were worried before endoscopy; in CERP patients, it was vice versa. A total of 71 % of CURP patients felt more confident and cheerful, but only 56 % remembered their confidence and cheerfulness adequately during recall. Immediately after endoscopy, 48 % of CURP patients still felt more confident/cheerful; during recall, this perception was remembered adequately. However, no such effects were seen in CERP patients; they more often felt more depressed/anxious before, but more often confident/cheerful after endoscopy. Subsequently, CERP patients estimated their mood adequately.

Table S-8: Correlations and interrelationships between emotional traits

	buoyant	gleeful	happy	cheerful	optimistic	easygoing	relaxed	well-balanced	in a chilled manner	calm	High-spirited	active	powerful	overexcited	talkative	muddled	wooz y	limp	inattentive	slow ed down	worried	concerned	anxious	excited
buoyant																								
gleeful	0.54 **																							
happy	0.48 **	0.75 **																						
cheerful	0.56 **	0.71 **	0.73 **																					
optimistic	0.21	0.42 **	0.49 **	0.47 **																				
easygoing	0.49 **	0.29 **	0.35 **	0.48 **	0.38 **																			
relaxed	0.32 **	0.42 **	0.48 **	0.59 **	0.36 **	0.35 **																		
well-balanced	0.34 **	0.41 **	0.53 **	0.58 **	0.54 **	0.55 **	0.70 **																	
in a chilled manner	0.59 **	0.57 **	0.54 **	0.78 **	0.46 **	0.50 **	0.54 **	0.63 **																
calm	0.41 **	0.38 **	0.29 **	0.48 **	0.34 **	0.38 **	0.50 **	0.50 **	0.51 **															
High-spirited	0.49 **	0.61 **	0.51 **	0.60 **	0.31 **	0.48 **	0.38 **	0.46 **	0.53 **	0.30 **														
active	0.41 **	0.63 **	0.67 **	0.63 **	0.47 **	0.22 *	0.41 **	0.42 **	0.60 **	0.29 **	0.57 **													
powerful	0.42 **	0.56 **	0.58 **	0.64 **	0.41 **	0.33 **	0.42 **	0.49 **	0.54 **	0.33 **	0.61 **	0.74 **												
overexcited	0.12	0.28 *	0.23 *	0.26 *	0.18	-0.01	-0.01	0.06	0.22	0.00	0.17	0.26 *	0.22 *											
talkative	0.30 **	0.50 **	0.47 **	0.45 **	0.31 **	0.24 *	0.31 **	0.38 **	0.32 **	0.47 **	0.37 **	0.48 **	0.34 **	0.28 **										
muddled	0.00	0.06	0.04	-0.09	0.10	-0.03	0.05	0.06	0.03	-0.07	-0.13	0.04	-0.07	0.17	0.05									
wooz y	-0.20	-0.06	-0.13	-0.21	-0.02	-0.19	0.26 *	-0.20	-0.18	-0.10	0.25 **	-0.11	0.34 **	0.15	0.15	0.53 **								
limp	-0.14	-0.14	-0.11	-0.24 *	0.25 *	0.00	-0.15	-0.13	-0.15	-0.13	0.28 *	0.34 **	0.52 **	-0.03	-0.06	0.10	0.20							
inattentive	0.03	0.09	0.02	-0.07	-0.05	-0.10	-0.16	0.01	0.03	-0.16	-0.07	0.07	-0.07	0.33 **	0.04	0.43 **	0.18	0.20						
slow ed down	-0.06	-0.08	-0.02	-0.08	-0.02	0.02	0.15	0.16	-0.05	0.05	0.26 *	-0.09	-0.14	0.10	0.00	0.45 **	0.22	0.17	0.38 **					
worried	-0.10	-0.16	-0.10	0.26 *	-0.15	0.35 **	0.35 **	0.23 *	-0.06	0.33 **	-0.17	-0.05	-0.12	0.15	-0.10	0.15	0.10	0.15	0.26 *	-0.06				
concerned	-0.16	-0.19	-0.17	-0.38 **	-0.18	0.30 **	0.42 **	0.34 **	-0.18	0.48 **	0.25 *	-0.06	0.26 *	0.02	-0.13	0.25 *	0.30 **	0.25 *	0.26 *	-0.05	0.66 **			

anxious	-0.12	-0.30**	0.30**	0.41**	0.24*	0.44**	0.45**	0.35**	0.30**	0.35**	0.29**	-0.16	0.24*	0.17	-0.07	0.19	0.26*	0.26*	0.29**	0.06	0.55**	0.62**		
overexcited	-0.08	0.29**	-0.20	0.34**	-0.12	-0.21	0.49**	0.30**	0.27*	0.50**	-0.21	-0.15	-0.17	0.10	-0.21	0.06	-0.01	0.11	0.32**	-0.04	0.64**	0.59**	0.60**	
nervous	-0.08	0.38**	0.26*	0.40**	-0.17	0.25*	0.40**	0.26*	0.28*	0.44**	0.30**	-0.14	-0.15	0.07	0.23*	0.08	0.01	0.06	0.35**	0.09	0.65**	0.57**	0.59**	0.80**

The correlation coefficients describe the interrelationship between all adjectives. The level of significance is marked with asterisks (* = $p < 0.05$, ** = $p < 0.01$).

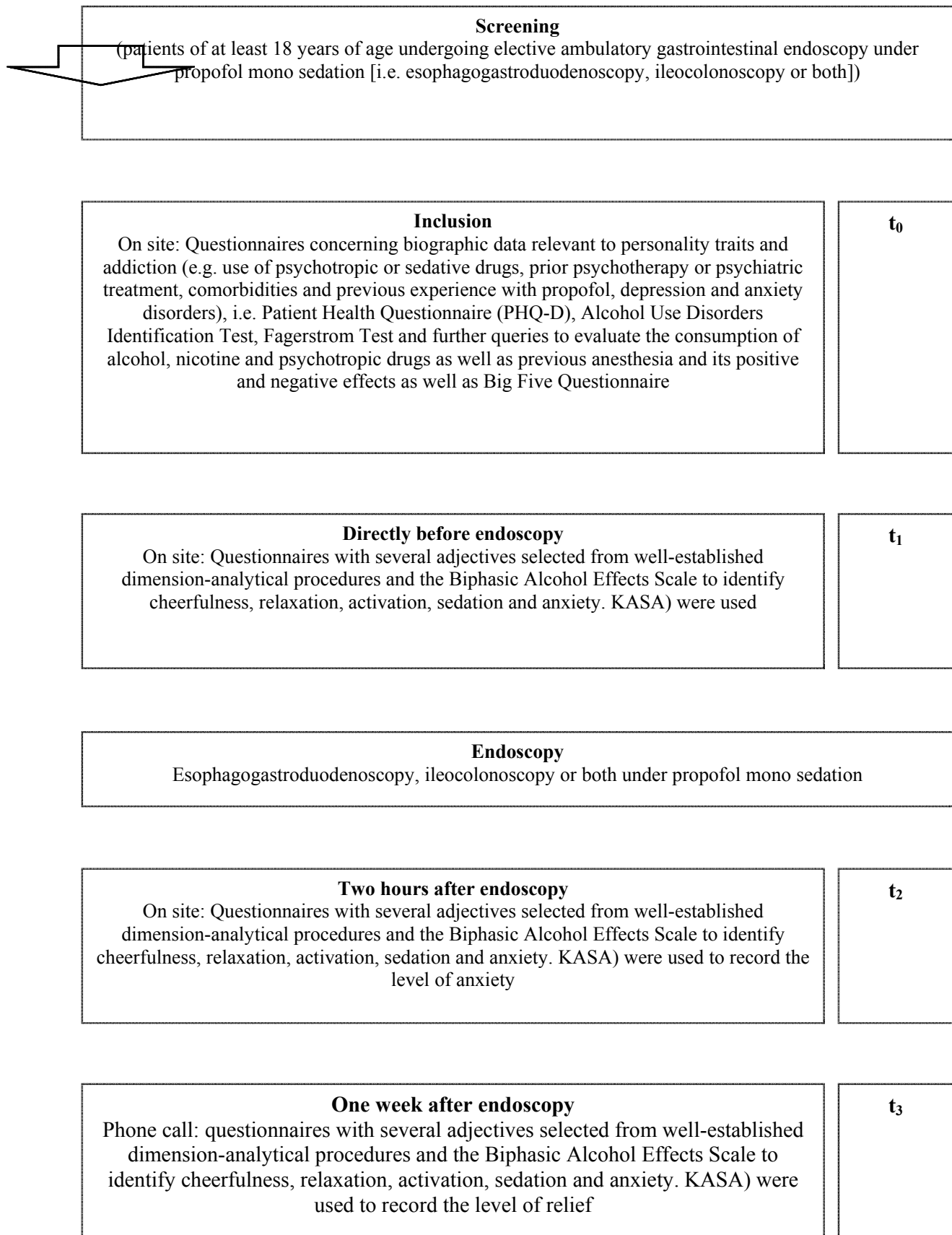


Figure S-1: Clinical trial protocol