## **Supplemental Online Content**

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This supplemental material has been provided by the authors to give readers additional information about their work.

Follow-up:	$0^{a}$	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
General health (% of sample)	3,096	328	405	717	616	545	516	384	347	257	224	167	148	127	109	84
	(78.3)	(10.4)	(15.1)	(33.1)	(34.7)	(37.2)	(44.0)	(39.3)	(44.4)	(40.2)	(43.7)	(39.4)	(41.2)	(42.6)	(43.1)	(40.2)
Bodily pain	3,117	333	411	725	622	548	523	387	347	263	226	171	148	127	109	85
(% of sample)	(78.8)	(10.5)	(15.3)	(33.5)	(35.1)	(37.4)	(44.5)	(39.6)	(44.4)	(41.1)	(44.1)	(40.3)	(41.2)	(42.6)	(43.1)	(40.7)
Physical functioning (% of sample)	3,124	336	412	724	628	550	525	389	347	263	226	175	148	129	108	85
	(79.0)	(10.6)	(15.4)	(33.5)	(35.4)	(37.5)	(44.7)	(39.8)	(44.4)	(41.1)	(44.1)	(41.3)	(41.2)	(43.3)	(42.7)	(40.7)
Role-physical (% of sample)	3,105	334	413	723	627	549	525	386	346	262	227	173	148	128	109	84
	(78.5)	(10.5)	(15.4)	(33.4)	(35.4)	(37.5)	(44.7)	(39.5)	(44.2)	(40.9)	(44.2)	(40.8)	(41.2)	(43.0)	(43.1)	(40.2)
Mental health	3,103	329	408	716	615	546	514	386	347	259	226	170	148	128	109	84
(% of sample)	(78.4)	(10.4)	(15.2)	(33.1)	(34.7)	(37.3)	(43.8)	(39.5)	(44.4)	(40.5)	(44.1)	(40.1)	(41.2)	(43.0)	(43.1)	(40.2)
Role-emotional (% of sample)	3,108	336	414	726	625	549	525	387	347	262	227	173	148	128	109	85
	(78.6)	(10.6)	(15.4)	(33.5)	(35.3)	(37.5)	(44.7)	(39.6)	(44.4)	(40.9)	(44.2)	(40.8)	(41.2)	(43.0)	(43.1)	(40.7)
Social functioning (% of sample)	3,081	319	387	697	609	531	501	375	335	250	221	163	145	125	107	81
	(77.9)	(10.1)	(14.4)	(32.2)	(34.3)	(36.2)	(42.7)	(38.4)	(42.8)	(39.1)	(43.1)	(38.4)	(40.4)	(42.0)	(42.3)	(38.8)
Vitality	3,103	328	408	718	619	546	516	386	347	259	226	171	148	128	109	84
(% of sample)	(78.4)	(10.4)	(15.2)	(33.2)	(34.9)	(37.3)	(44.0)	(39.5)	(44.4)	(40.5)	(44.1)	(40.3)	(41.2)	(43.0)	(43.1)	(40.2)
# of days elapsed <sup>b</sup>	0	49	86	130	177	221	268	318	363	413	452	492	537	566	602	630

eTable 1. Data availability on quality of life (SF-36) measures by follow-up.

*Notes:* <sup>a</sup>Corresponds to the initial assessment at baseline before commencing treatment with medicinal cannabis. <sup>b</sup>Indicates the average number of days that have passed since completing the baseline quality of life (SF-36) survey.

Outcome: General health (mea	an at baseline = 40.22) General effect			Balanced	CBD- dominant	THC- dominant
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	5.94*** (0.60)	6.22*** (0.99)	8.42*** (0.86)	9.06*** (0.96)	8.67*** (0.91)	7.06*** (1.14)
Other				8.06*** (0.90)	8.12*** (0.92)	8.55*** (0.87)
Primary diagnosis categories <sup>a</sup>		Yes	Yes	Yes	Yes	Yes
# of comorbidities		-1.31*** (0.12)				
# of medications		-0.70*** (0.14)	-0.27 (0.14)	-0.27 (0.14)	-0.27 (0.14)	-0.27* (0.14)
Binary indicators for eight medication categories <sup>b</sup>		Yes	Yes	Yes	Yes	Yes
Age		0.15*** (0.03)	-1.25* (0.61)	-1.26* (0.61)	-1.25* (0.61)	-1.23* (0.61)
Female		-0.67 (0.92)				
Employed		5.02*** (1.08)				
Nonlinear treatment trend <sup>c</sup>		-3.44 (1.79)	-4.37*** (1.24)	-4.20*** (1.24)	-4.46*** (1.25)	-4.50*** (1.24)
Month- and year-fixed effects		Yes	Yes	Yes	Yes	Yes
Patient-fixed effects			Yes	Yes	Yes	Yes
# of patients	3,096	2,663	1,552	1,552	1,552	1,552
# of consults	16	16	16	16	16	16
N	8,070	7,016	6,597	6,597	6,597	6,597
$R^2$	0.02	0.15	0.73	0.73	0.73	0.73
Effect sizes [Treatment]	[0.27***]	[0.28***]	[0.38***]	[0.41***]	[0.39***]	[0.32***]

eTable 2. OLS regression results	, estimating general health	(increasing from 0 to 100).
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Outcome: Bodily pain (mean an	General effect			Balanced	CBD- dominant	THC- dominant
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	13.12*** (0.63)	15.55*** (0.91)	17.34*** (0.98)	18.03*** (1.11)	17.65*** (1.04)	17.17*** (1.24)
Other				16.95*** (1.01)	16.97*** (1.04)	17.36*** (0.99)
Primary diagnosis categories <sup>a</sup>		Yes	Yes	Yes	Yes	Yes
# of comorbidities		-0.76*** (0.10)				
# of medications		0.16 (0.13)	-0.08 (0.16)	-0.07 (0.16)	-0.08 (0.16)	-0.08 (0.16)
Binary indicators for eight medication categories <sup>b</sup>		Yes	Yes	Yes	Yes	Yes
Age		0.00 (0.03)	-1.87** (0.70)	-1.87** (0.70)	-1.87** (0.70)	-1.87** (0.70)
Female		-1.66* (0.84)				
Employed		6.92*** (0.97)				
Nonlinear treatment trend <sup>c</sup>		-7.76*** (1.74)	-8.98*** (1.44)	-8.79*** (1.44)	-9.08*** (1.45)	-8.99*** (1.44)
Month- and year-fixed effects		Yes	Yes	Yes	Yes	Yes
Patient-fixed effects			Yes	Yes	Yes	Yes
# of patients	3,117	2,683	1,560	1,560	1,560	1,560
# of consults	16	16	16	16	16	16
Ν	8,142	7,069	6,618	6,618	6,618	6,618
$R^2$	0.07	0.33	0.68	0.68	0.68	0.68
Effect sizes [Treatment]	[0.54***]	[0.64***]	[0.72***]	[0.75***]	[0.73***]	[0.71***]

eTable 3. OLS	regression re	sults. estin	nating bo	dilv pain	(decreasing	from 0 to	100).

Outcome: Physical functioning	General effect			Balanced	CBD- dominant	THC- dominant
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	5.29*** (0.78)	6.24*** (1.14)	6.60*** (1.04)	6.81*** (1.15)	6.68*** (1.09)	7.18*** (1.28)
Other				6.49*** (1.06)	6.51*** (1.10)	6.55*** (1.04)
Primary diagnosis categories <sup>a</sup>		Yes	Yes	Yes	Yes	Yes
# of comorbidities		-1.13*** (0.13)				
# of medications		-0.80*** (0.15)	0.24 (0.17)	0.24 (0.17)	0.24 (0.17)	0.24 (0.17)
Binary indicators for eight medication categories <sup>b</sup>		Yes	Yes	Yes	Yes	Yes
Age		-0.26*** (0.03)	-1.26 (0.73)	-1.26 (0.73)	-1.26 (0.73)	-1.27 (0.73)
Female		-3.17** (1.12)				
Employed		16.29*** (1.31)				
Nonlinear treatment trend <sup>c</sup>		-5.24** (2.09)	-2.80 (1.64)	-2.74 (1.65)	-2.83 (1.65)	-2.75 (1.64)
Month- and year-fixed effects		Yes	Yes	Yes	Yes	Yes
Patient-fixed effects			Yes	Yes	Yes	Yes
# of patients	3,124	2,690	1,563	1,563	1,563	1,563
# of consults	16	16	16	16	16	16
Ν	8,169	7,095	6,625	6,625	6,625	6,625
$R^2$	0.01	0.33	0.79	0.79	0.79	0.79
Effect sizes [Treatment]	[0.17***]	[0.20***]	[0.21***]	[0.22***]	[0.22***]	[0.23***]

eTable 4. OLS regression results, estimating physical functioning (increasing from 0 to 100).

*Notes:* Standard errors clustered at the patient level are displayed in parentheses. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

Outcome: Role-physical (mean						
	(	General effec	et	Balanced	CBD- dominant	THC- dominant
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	13.37*** (0.93)	14.52*** (1.46)	16.81*** (1.65)	16.73*** (1.75)	17.61*** (1.78)	16.29*** (2.20)
Other				16.86*** (1.75)	15.82*** (1.70)	16.86*** (1.64)
Primary diagnosis categories <sup>a</sup>		Yes	Yes	Yes	Yes	Yes
# of comorbidities		-1.10*** (0.14)				
# of medications		0.05 (0.16)	0.07 (0.26)	0.07 (0.26)	0.06 (0.26)	0.07 (0.26)
Binary indicators for eight medication categories <sup>b</sup>		Yes	Yes	Yes	Yes	Yes
Age		-0.02 (0.04)	-2.37 (1.25)	-2.37 (1.25)	-2.36 (1.25)	-2.36 (1.25)
Female		-0.82 (1.25)				
Employed		9.20*** (1.54)				
Nonlinear treatment trend <sup>c</sup>		-7.71** (2.68)	-9.37*** (2.59)	-9.40*** (2.62)	-9.64*** (2.62)	-9.42*** (2.59)
Month- and year-fixed effects		Yes	Yes	Yes	Yes	Yes
Patient-fixed effects			Yes	Yes	Yes	Yes
# of patients	3,105	2,670	1,562	1,562	1,562	1,562
# of consults	16	16	16	16	16	16
N	8,139	7,064	6,622	6,622	6,622	6,622
$R^2$	0.03	0.16	0.49	0.49	0.49	0.49
Effect sizes [Treatment]	[0.46***]	[0.50***]	[0.58***]	[0.58***]	[0.61***]	[0.56***]

eTable 5. OLS re	egression results.	estimating rol	e-physical	(decreasing	from 0 to 100).

Outcome: Mental health (mean	General effect			Balanced	CBD- dominant	THC- dominant
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	9.35*** (0.56)	9.87*** (0.89)	11.00*** (0.86)	11.62*** (1.00)	11.07*** (0.90)	11.44*** (1.16)
Other				10.65*** (0.88)	10.91*** (0.94)	10.96*** (0.86)
Primary diagnosis categories <sup>a</sup>		Yes	Yes	Yes	Yes	Yes
# of comorbidities		-0.96*** (0.11)				
# of medications		0.50*** (0.12)	-0.10 (0.14)	-0.10 (0.14)	-0.10 (0.14)	-0.10 (0.14)
Binary indicators for eight medication categories <sup>b</sup>		Yes	Yes	Yes	Yes	Yes
Age		0.15*** (0.03)	-1.25* (0.63)	-1.26* (0.63)	-1.25* (0.63)	-1.26* (0.63)
Female		1.42 (0.85)				
Employed		5.31*** (0.88)				
Nonlinear treatment trend <sup>c</sup>		-3.13 (1.64)	-4.10** (1.27)	-3.93** (1.27)	-4.12** (1.27)	-4.05** (1.27)
Month- and year-fixed effects		Yes	Yes	Yes	Yes	Yes
Patient-fixed effects			Yes	Yes	Yes	Yes
# of patients	3,103	2,670	1,554	1,554	1,554	1,554
# of consults	16	16	16	16	16	16
Ν	8,088	7,030	6,602	6,602	6,602	6,602
$R^2$	0.04	0.18	0.69	0.69	0.69	0.69
Effect sizes [Treatment]	[0.42***]	[0.44***]	[0.49***]	[0.52***]	[0.50***]	[0.51***]

eTable 6. OLS regression results, estimating mental health (increasing from 0 to 100).

*Notes:* Standard errors clustered at the patient level are displayed in parentheses. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

Outcome: Role-emotional (mea		e = 28.37) General effect	et	Balanced	CBD- dominant	THC- dominant
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	16.17*** (1.05)	12.91*** (1.72)	14.19*** (2.13)	15.84*** (2.38)	13.61*** (2.24)	14.12*** (2.77)
Other				13.26*** (2.21)	14.90*** (2.27)	14.19*** (2.14)
Primary diagnosis categories <sup>a</sup>		Yes	Yes	Yes	Yes	Yes
# of comorbidities		-1.45*** (0.19)				
# of medications		0.15 (0.21)	-0.17 (0.38)	-0.17 (0.38)	-0.17 (0.38)	-0.17 (0.38)
Binary indicators for eight medication categories <sup>b</sup>		Yes	Yes	Yes	Yes	Yes
Age		0.02 (0.05)	-2.24 (1.59)	-2.26 (1.59)	-2.25 (1.59)	-2.24 (1.59)
Female		2.68 (1.48)				
Employed		9.85*** (1.70)				
Nonlinear treatment trend <sup>c</sup>		0.30 (3.43)	-1.12 (3.37)	-0.68 (3.37)	-0.93 (3.37)	-1.13 (3.38)
Month- and year-fixed effects		Yes	Yes	Yes	Yes	Yes
Patient-fixed effects			Yes	Yes	Yes	Yes
# of patients	3,108	2,673	1,562	1,562	1,562	1,562
# of consults	16	16	16	16	16	16
N	8,149	7,072	6,623	6,623	6,623	6,623
$R^2$	0.04	0.09	0.41	0.41	0.41	0.41
Effect sizes [Treatment]	[0.43***]	[0.35***]	[0.38***]	[0.43***]	[0.37***]	[0.38***]

eTable 7. OLS regression results, estimating role-emotional (decreasing from 0 to 100).

*Notes:* Standard errors clustered at the patient level are displayed in parentheses. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

Outcome: Social functioning (n	General effect			Balanced	CBD- dominant	THC- dominant
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	15.97*** (0.73)	17.03*** (1.18)	18.31*** (1.25)	20.19*** (1.40)	18.08*** (1.33)	17.10*** (1.62)
Other				17.24*** (1.30)	18.59*** (1.33)	18.43*** (1.26)
Primary diagnosis categories <sup>a</sup>		Yes	Yes	Yes	Yes	Yes
# of comorbidities		-1.03*** (0.13)				
# of medications		0.20 (0.16)	-0.24 (0.20)	-0.23 (0.20)	-0.23 (0.20)	-0.24 (0.20)
Binary indicators for eight medication categories <sup>b</sup>		Yes	Yes	Yes	Yes	Yes
Age		0.21*** (0.03)	-0.59 (0.89)	-0.61 (0.89)	-0.59 (0.89)	-0.56 (0.89)
Female		1.68 (1.07)				
Employed		10.99*** (1.15)				
Nonlinear treatment trend <sup>c</sup>		-6.08** (2.22)	-6.39*** (1.86)	-5.87** (1.86)	-6.31*** (1.87)	-6.51*** (1.87)
Month- and year-fixed effects		Yes	Yes	Yes	Yes	Yes
Patient-fixed effects			Yes	Yes	Yes	Yes
# of patients	3,081	2,647	1,535	1,535	1,535	1,535
# of consults	16	16	16	16	16	16
N	7,927	6,893	6,558	6,558	6,558	6,558
$R^2$	0.07	0.18	0.61	0.61	0.61	0.61
Effect sizes [Treatment]	[0.60***]	[0.64***]	[0.68***]	[0.75***]	[0.67***]	[0.64***]

eTable 8. OLS	regression results	estimating social	functioning	(increasing	from 0 to 100).

Outcome: Vitality (mean at bas		9) General effec	et	Balanced	CBD- dominant	THC- dominant
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment Other	10.41*** (0.58)	11.85*** (0.99)	12.91*** (0.96)	13.66*** (1.11) 12.48***	13.08*** (1.00) 12.69***	12.52*** (1.20) 12.94***
oulor				(0.97)	(1.04)	(0.97)
Primary diagnosis categories <sup>a</sup>		Yes	Yes	Yes	Yes	Yes
# of comorbidities		-1.01*** (0.10)				
# of medications		0.07 (0.13)	-0.09 (0.16)	-0.09 (0.16)	-0.09 (0.16)	-0.09 (0.16)
Binary indicators for eight medication categories <sup>b</sup>		Yes	Yes	Yes	Yes	Yes
Age		0.04 (0.03)	-0.90 (0.66)	-0.90 (0.66)	-0.89 (0.66)	-0.89 (0.66)
Female		-3.10*** (0.87)				
Employed		2.73** (1.01)				
Nonlinear treatment trend <sup>c</sup>		-6.65*** (1.81)	-6.46*** (1.39)	-6.26*** (1.38)	-6.52*** (1.39)	-6.50*** (1.39)
Month- and year-fixed effects		Yes	Yes	Yes	Yes	Yes
Patient-fixed effects			Yes	Yes	Yes	Yes
# of patients	3,103	2,668	1,554	1,554	1,554	1,554
# of consults	16	16	16	16	16	16
N	8,096	7,031	6,601	6,601	6,601	6,601
$R^2$	0.05	0.14	0.63	0.63	0.63	0.63
Effect sizes [Treatment]	[0.50***]	[0.57***]	[0.62***]	[0.66***]	[0.63***]	[0.60***]

eTable 9. OLS regression results, estimating vitality (increasing from 0 to 100).

*Notes:* Standard errors clustered at the patient level are displayed in parentheses. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

Adverse Event							
	Mild	Moderate	Severe	Serious	Unspecified	Т	'otal
	N	N	Ν	N	N	N	(%)
Sedation/sleepiness	288	116	7	0	0	411	(13.1)
Dry mouth	284	74	1	0	0	359	(11.4)
Lethargy/tiredness	153	75	4	0	0	232	(7.4)
Dizziness	150	70	4	0	0	224	(7.1)
Concentration difficulty	138	59	3	0	0	200	(6.4)
Nausea	115	74	10	0	0	199	(6.3)
Diarrhoea/loose stools	105	40	8	0	2	155	(4.9)
Feeling high	105	42	1	0	0	148	(4.7)
Increased appetite	91	27	0	0	0	118	(3.7)
Headache	59	34	6	0	0	100	(3.2)
Anxiety/panic attack	31	47	6	0	0	84	(2.7)
Vivid dreams	35	17	0	0	1	53	(1.7)
Hallucination	12	27	5	1	0	45	(1.4)
Impaired coordination	29	10	1	0	0	40	(1.3)
Palpitations	23	8	1	0	0	32	(1.0)
Other <sup>a</sup>	287	202	28	1	1	519	(16.5)

eTable 10. Reported adverse events across different severity levels.

Notes: "Includes abdominal pain, absence seizures, acid reflux, aggression, agitation/disorientation, alertness, allergic conjunctivitis, allergic reaction/hives, altered taste, amotivational, anger/stress, anosmia, apathy, arm pain, atrial fibrillation, auditory hallucination, bad taste in mouth, behavioural change, bleeding gums, bloating, blurred vision, bowel movement change, bradycardia, brain fog, bruxism, burning throat, burping, butterflies in the stomach, chest pain, chills/shivers, clumsiness, cognitive impairment, collapsing, confusion, constipation, cough, decreased appetite, delirium, depression, drug interaction, dry eyes, dry skin, dysphagia, dysphoria, dysuria, edema, elevated liver function tests, emotional fragility, epigastric pain, erectile dysfunction, euphoria, fecal incontinence, feeling blunted, feeling drunk, feeling flat, feeling stoned, feeling unbalanced, feeling warm, fever, flatulence, foot numbness, funny turn, gelastic seizures, globus pharyngeus, goosebumps, hangover, hay fever, head banging, heartburn, heavy legs, hiccups, high blood pressure, hot flashes, hyperactivity, hyperacusis, hyponatraemia, hyponatremia, impaired movement, increased body pain, increased seizures, indigestion, insomnia, intoxication, intrusive thoughts, irritability, itchy skin, jittery, lack of control, lack of motivation, leg pain, lightheadedness, low blood pressure, low mood, mania, memory loss, metallic smell on body, metallic taste, mouth ulcers, muscle rigidity, muscle twitch, muscle twitch/tremors, nightmares, ocular hypertension, out-of-body experience, overthinking, paradoxical reaction, paranoia, phlegm, pressure in the head, pseudobulbar affect, psychogenic nonepileptic seizures, racing thoughts, restless arms, salty taste in mouth, seizure, shakes/tremors, shortness of breath, sinus pain, skin rash, sleeping difficulty, slurred speech, sore throat, sweating, swollen lips, tachycardia, throat irritation, tics, tingling tongue, tinnitus, ulcerative colitis, unsteadiness, urinary incontinence, use disorder/dependency, vertigo, voice change, vomiting, wakefulness, weakness, weight change, wheeze.

**eFigure.** Flow of patients through the study of the association of medicinal cannabis with health-related quality of life.

