

SUPPLEMENTAL DATA

Complementary therapies in early breast cancer: Oncologists' evidence-based decisions in a Southeast European vignette survey

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Table S1. Randomized vignettes (*n* = 136)

Vignettes	n (%)	Age (years)	Education	Lymph nodes
1	19 (14.0)	35	primary	negative
2	14 (10.3)	35	primary	positive
3	13 (9.6)	35	university	negative
4	13 (9.6)	35	university	positive
5	21 (15.4)	75	primary	negative
6	18 (13.2)	75	primary	positive
7	16 (11.8)	75	university	negative
8	22 (16.2)	75	university	positive
Marginal totals				
Age				
35 years	59 (43.4)			
75 years	77 (56.6)			
Education				
primary	72 (52.9)			
university	64 (47.1)			
Lymph nodes				
negative	69 (50.7)			
positive	67 (49.3)			

Table S2. Distribution of oncologist population and study sample by country

	Population	Sample	Δ	Weights
Bosnia and Herzegovina	100 (14.5)	33 (24.3)	-9.8	0.5967
Bulgaria	150 (21.8)	10 (7.4)	14.4	2.9459
Croatia	110 (16.0)	48 (35.3)	-19.3	0.4533
Montenegro	19 (2.8)	7 (5.1)	-2.3	0.5490
North Macedonia	60 (8.7)	11 (8.1)	0.6	1.0741
Serbia	170 (24.7)	17 (12.5)	12.2	1.9760
Slovenia	79 (11.5)	10 (7.4)	4.1	1.5541
TOTAL	688 (100.0)	136 (100.1)		

Results are presented as numbers (percentages) within the population and the sample.

The shares do not total 100.1% due to rounding. Δ : Percentage-point difference between the share of a particular country's population in the total regional oncology workforce and its share in the sample; Weights: Post-stratification weights calculated as population share divided by sample share.

Table S3. Frequency of participants who would prevent, allow, or recommend each treatment for specific indications in the neoadjuvant or adjuvant settings; unweighted data (*n* = 136)

Indication	“Correct”	Neoadjuvant setting			Adjuvant setting		
treatment	response	prevent	allow	recommend	prevent	allow	recommend
Prevention of							
peripheral neuropathy							
Physical exercise	allow	2 (1.5)	27 (19.9)	107 (78.7)	3 (2.2)	31 (22.8)	102 (75.0)
Compression therapy	allow	40 (29.4)	78 (57.4)	18 (13.2)	38 (27.9)	74 (54.4)	24 (17.6)
Glutathione	prevent	39 (28.7)	86 (63.2)	11 (8.1)	37 (27.2)	83 (61.0)	16 (11.8)
Acetyl-L-carnitine	prevent	60 (44.1)	67 (49.3)	9 (6.6)	58 (42.6)	67 (49.3)	11 (8.1)
Fatigue							
Yoga	recommend	7 (5.1)	58 (42.6)	71 (52.2)	9 (6.6)	54 (39.7)	73 (53.7)
Ginseng	allow	59 (43.4)	66 (48.5)	11 (8.1)	56 (41.2)	70 (51.5)	10 (7.4)
Guarana	prevent	93 (68.4)	39 (28.7)	4 (2.9)	85 (62.5)	48 (35.3)	3 (2.2)
Acetyl-L-carnitine	prevent	73 (53.7)	58 (42.6)	5 (3.7)	72 (52.9)	58 (42.6)	6 (4.4)
Nausea and vomiting							
Acupressure	recommend	25 (18.4)	86 (63.2)	25 (18.4)	32 (23.5)	71 (52.2)	33 (24.3)
Ginger	allow	24 (17.6)	85 (62.5)	27 (19.9)	24 (17.6)	81 (59.6)	31 (22.8)
Grapefruit	prevent	96 (70.6)	36 (26.5)	4 (2.9)	97 (71.3)	36 (26.5)	3 (2.2)

Glutamine	prevent	56 (41.2)	72 (52.9)	8 (5.9)	61 (44.9)	68 (50.0)	7 (5.1)
Anaemia							
Beet juice	allow	31 (22.8)	87 (64.0)	18 (13.2)	31 (22.8)	86 (63.2)	19 (14.0)
Colloidal silver	prevent	111 (81.6)	23 (16.9)	2 (1.5)	104 (76.5)	29 (21.3)	3 (2.2)
High-dose vitamin C	prevent	68 (50.0)	60 (44.1)	8 (5.9)	65 (47.8)	62 (45.6)	9 (6.6)
Green tea	prevent	42 (30.9)	89 (65.4)	5 (3.7)	41 (30.1)	89 (65.4)	6 (4.4)
Depression and other mood disorders							
Mindfulness	recommend	10 (7.4)	66 (48.5)	60 (44.1)	14 (10.3)	55 (40.4)	67 (49.3)
Yoga	recommend	6 (4.4)	69 (50.7)	61 (44.9)	7 (5.1)	63 (46.3)	66 (48.5)
Relaxation	recommend	2 (1.5)	38 (27.9)	96 (70.6)	4 (2.9)	40 (29.4)	92 (67.6)
St. John's Wort	prevent	88 (64.7)	44 (32.4)	4 (2.9)	95 (69.9)	37 (27.2)	4 (2.9)
Sleep disturbances							
CBT	recommend	4 (2.9)	45 (33.1)	87 (64.0)	2 (1.5)	54 (39.7)	80 (58.8)
Melatonin	allow	26 (19.1)	95 (69.9)	15 (11.0)	31 (22.8)	87 (64.0)	18 (13.2)
Qi gong	allow	75 (55.1)	54 (39.7)	7 (5.1)	71 (52.2)	54 (39.7)	10 (7.4)
Kava kava (lat. <i>Piper methysticum</i>)	prevent	91 (66.9)	41 (30.1)	4 (2.9)	89 (65.4)	45 (33.1)	2 (1.5)
Quality of life							
Meditation	recommend	6 (4.4)	61 (44.9)	69 (50.7)	5 (3.7)	58 (42.6)	73 (53.7)
Mistletoe	allow	104 (76.5)	29 (21.3)	3 (2.2)	98 (72.1)	37 (27.2)	1 (0.7)

Comfrey	prevent	95 (69.9)	38 (27.9)	3 (2.2)	83 (61.0)	51 (37.5)	1 (0.7)
PC-SPES mixture	prevent	100 (74.1)	34 (25.2)	1 (0.7)	93 (68.9)	41 (30.4)	2 (1.5)

Data are presented as the number (percentage) of participants.

The "Correct Response" column indicates the evidence-aligned action for each therapy-indication pair based on published guidelines (Greenlee et al., 2017; Witt and Cardoso, 2016). Respondents were not provided with evidence ratings while completing the survey; therefore, percentages may not total 100 due to rounding. Abbreviations: CBT: Cognitive behavioural therapy; PC-SPES: Prostate Cancer–Special Extract Series (herbal mixture).

Table S4. Frequency of participants willing to allow or recommend each treatment for specific indications in the neoadjuvant or adjuvant setting; unweighted data ($n = 136$)

Indication treatment	“Correct” response	Setting		Difference		Allow only in one setting:			
		NA	ADJ	Δ	Δ%	NA only	ADJ only	p	g
Prevention of peripheral neuropathy									
Physical exercise	correct	134 (98.5)	133 (97.8)	0.7	(0.7)	1	0	0.317	0.01
Glutathione	not correct	97 (71.3)	99 (72.8)	-1.5	(-2.1)	8	10	0.637	-0.01
Acetyl-L-carnitine	not correct	76 (55.9)	78 (57.4)	-1.5	(-2.7)	5	7	0.564	-0.01
Compression therapy	correct	96 (70.6)	98 (72.1)	-1.5	(-2.1)	5	7	0.564	-0.01
Fatigue									
Yoga	correct	129 (94.9)	127 (93.4)	1.5	(1.6)	3	1	0.317	0.01
Ginseng	correct	77 (56.6)	80 (58.8)	-2.2	(-3.1)	7	10	0.467	-0.02
Guarana	not correct	43 (31.6)	51 (37.5)	-5.9	(-18.7)	7	15	0.088	-0.06
Acetyl-L-carnitine	not correct	63 (46.3)	64 (47.1)	-0.8	(-1.7)	6	7	0.782	-0.01
Nausea and vomiting									

Grapefruit	not correct	40 (29.4)	39 (28.7)	0.7 (2.4)	8	7	0.796	0.01
Ginger	correct	112 (82.4)	112 (82.4)	0 (0.0)	5	5	1.000	0.00
Glutamine	not correct	80 (58.8)	75 (55.1)	3.7 (6.3)	15	10	0.317	0.04
Acupressure	correct	111 (81.6)	104 (76.5)	5.1 (6.3)	9	2	0.035	0.05
Anaemia								
Colloidal silver	not correct	25 (18.4)	32 (23.5)	-5.1 (-27.7)	5	12	0.090	-0.05
Beet juice	correct	105 (77.2)	105 (77.2)	0 (0.0)	5	5	1.000	0.00
High-dose vitamin C	not correct	68 (50.0)	71 (52.2)	-2.2 (-4.4)	5	8	0.405	-0.02
Green tea	not correct	94 (69.1)	95 (69.9)	-0.8 (-1.2)	5	6	0.763	-0.01
Depression and other mood disorders								
Mindfulness	correct	126 (92.6)	122 (89.7)	2.9 (3.1)	9	5	0.285	0.03
St. John's Wort	not correct	48 (35.3)	41 (30.1)	5.2 (10.7)	13	6	0.108	0.05
Yoga	correct	130 (95.6)	129 (94.9)	0.7 (0.7)	2	1	0.564	0.01
Relaxation	correct	134 (98.5)	132 (97.1)	1.4 (1.4)	2	0	0.157	0.01
Sleep disturbances								
CBT	correct	132 (97.1)	134 (98.5)	-1.4 (-1.4)	0	2	0.157	-0.01
Kava kava (lat. <i>Piper methysticum</i>)	not correct	45 (33.1)	47 (34.6)	-1.5 (-4.5)	11	13	0.683	-0.01
Melatonin	correct	110 (80.9)	105 (77.2)	3.7 (4.6)	10	5	0.197	0.04
Qi gong	correct	61 (44.9)	64 (47.4)	-2.5 (-5.6)	11	15	0.433	-0.03

Quality of life

Comfrey	not correct	41 (30.1)	52 (38.5)	-8.4 (-27.9)	7	19	0.019	-0.09
Mistletoe	correct	32 (23.5)	38 (27.9)	-4.4 (-18.7)	5	11	0.134	-0.04
Meditation	correct	130 (95.6)	131 (96.3)	-0.7 (-0.7)	3	4	0.705	-0.01
PC-SPES mixture	not correct	35 (25.9)	43 (31.6)	-5.7 (-22.0)	6	13	0.108	-0.05

Data are presented as the number (percentage) of participants.

The classification of the expected "correct" responses is informed by levels of evidence from Greenlee et al. (2017) and Witt and Cardoso (2016), which evaluate efficacy, safety, and potential interactions with conventional therapy. Respondents were not made aware of these classifications during the survey. Percentages may not total 100 due to rounding.

Δ denotes both the absolute difference in percentage points and the relative difference calculated as $(NA - ADJ)/NA$. "NA only" and "ADJ only" indicate the number of participants who endorsed the treatment only in the neoadjuvant or only in the adjuvant setting, respectively. p is the statistical significance of the difference calculated using the McNemar test and is reported without correction for multiple comparisons (no FDR adjustment). g is Cohen's g , a standardised effect size calculated as $(NA \text{ only} - ADJ \text{ only}) / n$, where n is the number of non-missing paired responses. Abbreviations: NA: Neoadjuvant; ADJ: Adjuvant; CBT: Cognitive behavioural therapy; g : Cohen's g .

Table S5. Frequency of participants recommending each treatment for specific indications in the neoadjuvant or adjuvant setting; unweighted data (*n* = 136)

Indication treatment	“Correct” response	Setting		Difference		Recommen nd only in one setting:		p	g
		NA	ADJ	Δ	Δ%	NA only	ADJ only		
Prevention of peripheral neuropathy									
Physical exercise	not correct	107 (78.7)	102 (75.0)	0.7	(0.7)	12	7	0.251	0.04
Glutathione	not correct	11 (8.1)	16 (11.8)	-3.7	(-3.0)	3	8	0.132	-0.04
Acetyl-L-carnitine	not correct	9 (6.6)	11 (8.1)	-1.5	(-1.5)	2	4	0.414	-0.01
Compression therapy	not correct	18 (13.2)	24 (17.6)	-4.4	(-4.6)	3	9	0.083	-0.04

Fatigue

Yoga correct 71 (52.2) 73 (53.7) -1.5 (-1.2) 14 16 0.715 -0.01

not

Ginseng correct 11 (8.1) 10 (7.4) 0.7 (0.7) 4 3 0.705 0.01

not

Guarana correct 4 (2.9) 3 (2.2) 0.7 (0.7) 1 0 0.317 0.01

not

Acetyl-L-carnitine correct 5 (3.7) 6 (4.4) -0.7 (-0.7) 2 3 0.655 -0.01

Nausea and vomiting

not

Grapefruit correct 4 (2.9) 3 (2.2) 0.7 (0.7) 3 2 0.655 0.01

not

Ginger correct 27 (19.9) 31 (22.8) -2.9 (-2.6) 11 15 0.433 -0.03

not

Glutamine correct 8 (5.9) 7 (5.1) 1.5 (1.1) 5 4 0.739 0.01

Acupressure correct 25 (18.4) 33 (24.3) -5.9 (-6.6) 6 14 0.074 -0.06

Anaemia

not

Colloidal silver correct 2 (1.5) 3 (2.2) -0.7 (-0.7) 0 1 0.317 -0.01

Beet juice not 18 (13.2) 19 (14.0) -0.7 (-0.7) 1 2 0.564 -0.01

	correct								
High-dose vitamin C	not correct								
	correct	8 (5.9)	9 (6.6)	-1.5	(-1.5)	0	1	0.317	-0.01
	not correct								
Green tea	correct	5 (3.7)	6 (4.4)	-0.7	(-0.7)	1	2	0.564	-0.01
Depression and other mood disorders									
Mindfulness	correct	60 (44.1)	67 (49.3)	-3	(-2.2)	6	13	0.108	-0.05
	not correct								
St. John's Wort	correct	4 (2.9)	4 (2.9)	0	(0.0)	1	1	1.000	0.00
Yoga	correct	61 (44.9)	66 (48.5)	-1.5	(-1.1)	3	8	0.132	-0.04
Relaxation	correct	96 (70.6)	92 (67.6)	3.7	(2.7)	8	4	0.248	0.03
Sleep disturbances									
CBT	correct	87 (63.9)	80 (58.8)	6.3	(4.9)	16	9	0.162	0.05
	not correct								
Kava kava (lat. <i>Piper methysticum</i>)	correct	4 (2.9)	2 (1.5)	1.5	(1.4)	2	0	0.157	0.01
	not correct								
Melatonin	correct	15 (11.0)	18 (13.2)	-2.2	(-1.7)	1	4	0.180	-0.02
	not correct								
Qi gong	correct	7 (5.1)	10 (7.4)	-2.3	(-2.3)	2	5	0.257	-0.02

Quality of life

Comfrey	not								
	correct	3 (2.2)	1 (0.7)	1.5	(0.8)	1	0	0.317	0.01
Mistletoe	not								
	correct	3 (2.2)	1 (0.7)	1.5	(0.8)	2	0	0.157	0.01
Meditation	correct	69 (50.7)	73 (53.7)	-2.9	(-2.2)	6	10	0.317	-0.03
PC-SPES mixture	not								
	correct	1 (0.7)	2 (1.5)	-0.7	(-0.7)	1	2	0.564	-0.01

Data are presented as the number (percentage) of participants.

The classification of the expected "correct" response is based on the levels of evidence from Greenlee et al. (2017) and Witt and Cardoso (2016), which consider efficacy, safety, and potential interactions with conventional therapy. Respondents were not provided with these classifications during the survey. Percentages may not total 100 due to rounding.

Absolute difference (Δ) is expressed in percentage points. Relative difference is calculated as $(NA - ADJ)/NA$. "NA only" and "ADJ only" denote the number of participants who endorsed the treatment only in the neoadjuvant or only in the adjuvant setting, respectively. p values are calculated using the McNemar test and are reported without correction for multiple comparisons (no FDR adjustment). Cohen's g is a standardised effect size calculated as $(NA \text{ only} - ADJ \text{ only}) / n$, where n is the number of non-missing paired responses. Abbreviations: NA: Neoadjuvant; ADJ: Adjuvant; CBT: Cognitive behavioural therapy; g : Cohen's g .