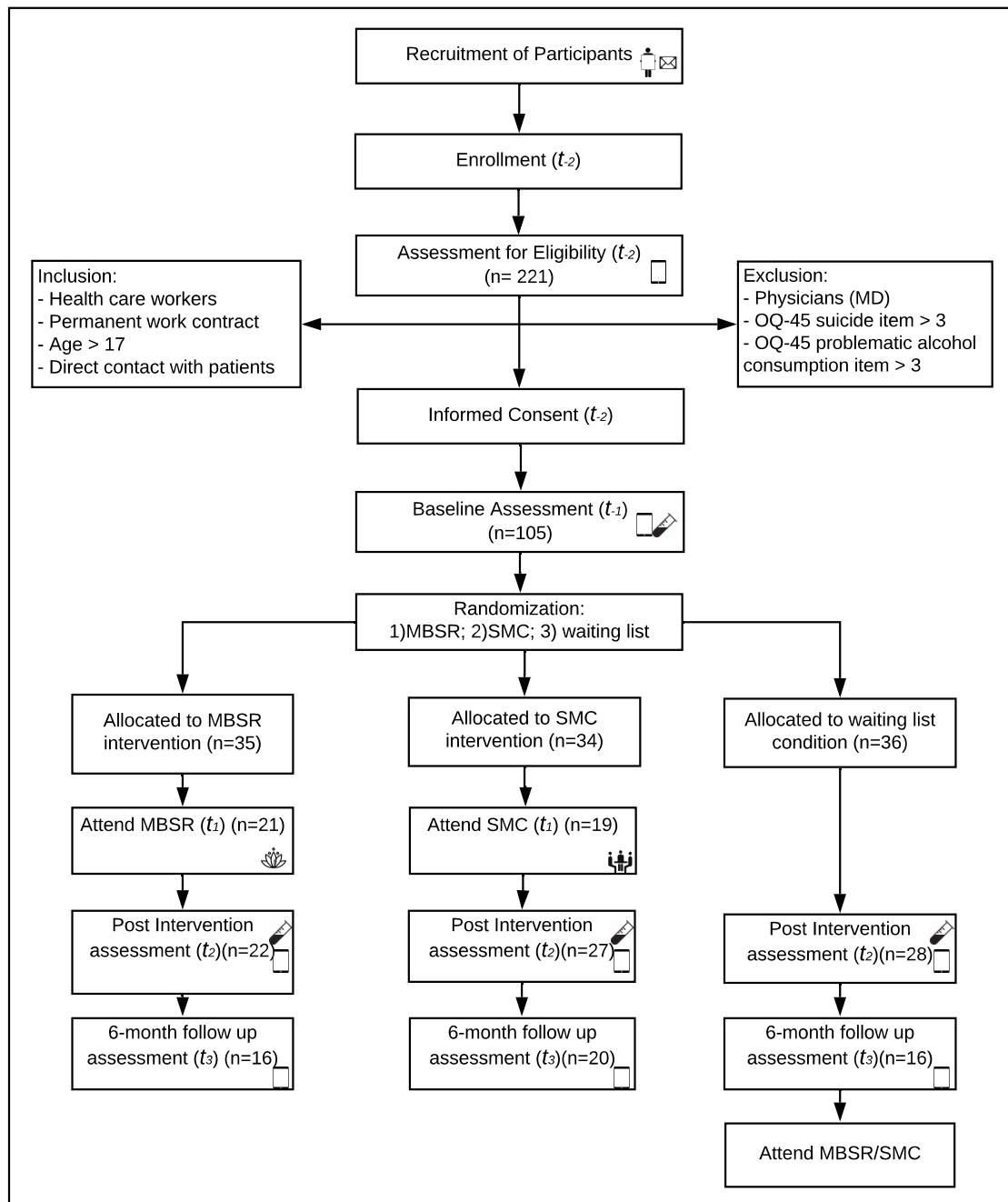


Participant Flow:

Figure 1. CONSORT diagram of participant flow through the study



MBSR: Mindfulness Based Stress Reduction; OQ-45: 45-item Outcome Questionnaire; SMC: Stress Management Course

Baseline Characteristics:

Table 1. Sociodemographic, work, health-related and outcome measures of study participants at baseline (n=105)

Characteristic	Group					
	MBSR (n=35)		SMC (n=34)		WL (n=36)	
	% or mean	SD	% or mean	SD	% or mean	SD
Demographic features						
Women, %	97.1		97.1		100	
Age, year	40.9	12.1	40.1	14.2	39.6	10.9
Married-free union marital status, %	48.5		61.8		52.7	
University degree, %	51.4		44.1		55.6	
Work-related features						
Years of clinical experience	16.8	11.0		11.2	14.4	10.3
Post, %						
Head nurse	5.7		2.9		8.3	
Nurse/other healthcare professional	45.7		38.2		36.1	
Medical technician	37.1		47.1		41.7	
Healthcare assistant staff	2.9		2.9		2.8	
Psychosocial risk at work (COPSOQ)						
Emotional demands (0-20)	11.4	3.6	11.2	2.4	10.5	3.3
Work pace and development (0-20)	6.5	3.4	7.7	3.3	7.4	2.8
Social support from supervisors (0-20)	5.8	3.3	6.2	2.7	6.8	2.7
Rewards (0-12)	3.6	2.8	5.3	2.6	4.8	2.4
Work-family conflict (0-8)	3.7	1.8	3.6	1.9	4.1	1.7
Health-related features						
Current smokers, %	28.1		31.3		14.3	
Current alcohol use (last 7 days), %	31.3		40.6		37.1	
Mental health consultation (lifetime), %	87.5		67.7		65.7	
Sleep problem (0-4)	2.2	1.2	1.6	1.3	1.8	1.2
Comorbidity (SCQ) (0-51)	1.0	1.3	1.0	1.4	1.2	1.9
Primary outcomes						
Psychological distress (GHQ-12) (0-36)	13.1	6.6	14.9	6.3	12.6	6.0
Psychological distress (OQ45) (0-180)	55.3	22.1	60.3	22.3	54.2	22.8
Symptom distress (0-100)	32.0	14.1	34.5	15.1	30.7	13.6
Interpersonal relations (0-44)	12.6	6.0	14.2	6.1	12.7	6.4
Social role (0-36)	10.7	3.9	11.6	4.1	10.8	4.2
Perceived Stress (PSS) (0-56)	25.0	7.4	25.5	7.0	24.1	5.4
Secondary outcomes						
Job satisfaction (JSS) (15-105)	69.6	14.8	62.8	12.9	66.4	11.4
Intrinsic job satisfaction (7-49)	35.1	7.2	31.6	6.7	34.2	7.3
Extrinsic job satisfaction (8-56)	34.6	8.6	31.1	7.5	32.1	5.8
Mindfulness (FFMQ) (39-195)	128.7	21.9	119.9	19.0	130.8	18.9
Observing (8-40)	23.8	5.6	21.1	6.8	23.8	6.8
Describing (8-40)	27.3	5.7	24.7	4.7	28.3	6.4
Acting with awareness (8-40)	29.2	7.7	28.3	7.4	29.6	6.0
Non-judging (8-40)	28.1	6.1	26.7	5.1	28.7	6.6
Non-reacting (7-35)	20.3	5.0	19.1	4.9	20.4	4.6

Primary Outcome Measures:

Table 2. Effects of Mindfulness-Based Stress Reduction and other intervention on primary outcome measures post-intervention and at follow-up

Timepoint	Outcome Subscale	MBSR vs WL				Effect size				SMC vs WL			
		Diff	MBSR vs WL			Diff	MBSR vs SMC			Diff	SMC vs WL		
			β	(SE),	p value		β	(SE),	p value		β	(SE),	p value
Post-intervention													
	Psychological distress (GHQ-12) (n=75)	-6.75	-1.30	(1.38),	0.000	-4.60	-0.80	(1.58),	0.006	-2.08	-0.40	(1.46),	0.16
	Psychological distress (OQ-45) (n=77)	-16.51	-0.71	(5.58),	0.005	-15.05	-0.72	(5.87),	0.014	-2.01	-0.09	(6.16),	0.75
	Symptom distress	-9.91	-0.74	(3.17),	0.003	-10.03	-0.85	(3.22),	0.003	-0.28	-0.02	(3.47),	0.94
	Interpersonal relations	-2.65	-0.40	(1.78),	0.144	-2.56	-0.39	(1.99),	0.206	-0.30	-0.05	(1.85),	0.87
	Social role	-3.95	-0.80	(1.10),	0.001	-2.46	-0.68	(1.00),	0.019	-1.43	-0.29	(1.23),	0.25
	Perceived Stress (PSS) (n=72)	-6.53	-0.78	(2.27),	0.007	-4.54	-0.49	(2.70),	0.103	-1.49	-0.18	(2.40),	0.54
Follow-up													
	Psychological distress (GHQ-12) (n=52)	-2.43	-0.48	(1.92),	0.219	-1.93	-0.29	(2.24),	0.396	-1.01	-0.20	(2.38),	0.68
	Psychological distress (OQ-45) (n=48)	-13.38	-0.55	(7.77),	0.101	-12.52	-0.75	(6.31),	0.060	-3.49	-0.14	(8.15),	0.67
	Symptom distress (n=50)	-8.06	-0.56	(4.97),	0.121	-8.42	-0.65	(4.16),	0.054	0.39	0.03	(5.35),	0.94
	Interpersonal relations (n=48)	-2.32	-0.42	(1.90),	0.238	-2.36	-0.64	(1.63),	0.161	-1.02	-0.18	(1.90),	0.59
	Social role (n=50)	-3.3	-0.61	(1.70),	0.066	-3.45	-0.76	(1.31),	0.014	0.29	0.05	(2.17),	0.89
	Perceived Stress (PSS) (n=48)	-2.2	-0.40	(2.12),	0.312	-1.03	-0.23	(1.87),	0.588	-2.94	-0.53	(1.91),	0.14

GHQ-12: General Health Questionnaire; MBSR: Mindfulness Based Stress Reduction; OQ-45: Outcome Questionnaire; PSS: Perceived Stress Scale; SE: Standard Error; SMC: Stress Management Course; WL: Waiting list

*Coefficients for intervention effects (β) were estimated for post-intervention and follow-up separately using ordinary least squares regressions, with treatment group membership as independent variable. The dependent variable is shown in the first column

Secondary Outcome Measures:

Table 3. Effects of Mindfulness-Based Stress Reduction and other intervention on secondary outcome measures post-intervention and at follow-up

Timepoint Outcome Subscale	MBSR vs WL				Effect size MBSR vs SMC				SMC vs WL			
	Diff	β	(SE),	p value	Diff	β	(SE),	p value	Diff	β	(SE),	p value
Post-intervention												
Job satisfaction (JSS) (n=73)	11.54	0.71	(4.87),	0.023	10.14	0.88	(4.19),	0.021	-0.73	-0.04	(3.66),	0.84
Intrinsic job satisfaction	5.67	0.72	(2.15),	0.012	5.67	0.99	(1.78),	0.003	-0.51	-0.06	(1.87),	0.79
Extrinsic job satisfaction	5.88	0.64	(2.95),	0.054	4.47	0.65	(2.67),	0.103	-0.22	-0.02	(2.08),	0.92
Mindfulness (FFMQ) (n=73)												
Observing	4.94	0.60	(1.73),	0.007	6.67	1.14	(1.54),	0.000	-1.65	-0.20	(1.78),	0.36
Describing	2.52	0.39	(1.36),	0.072	4.22	0.85	(1.30),	0.003	-1.56	-0.24	(1.40),	0.27
Acting with awareness	2.25	0.37	(1.54),	0.152	4.41	0.67	(1.40),	0.003	-2.35	-0.38	(1.74),	0.19
Non-judging	-0.23	-0.04	(1.90),	0.902	2.36	0.41	(1.87),	0.214	-2.33	-0.39	(1.76),	0.19
Non-reacting	3.21	0.74	(1.36),	0.023	2.30	0.44	(1.68),	0.179	1.18	0.27	(1.22),	0.34
Follow-up												
Job satisfaction (JSS) (n=45)	4.48	0.27	(6.01),	0.466	5.53	0.38	(5.48),	0.325	-3.3	-0.20	(6.79),	0.63
Intrinsic job satisfaction	3.27	0.41	(2.77),	0.254	5.10	0.67	(2.63),	0.067	-2.95	-0.37	(3.41),	0.40
Extrinsic job satisfaction	1.21	0.12	(3.88),	0.759	0.44	0.06	(3.26),	0.895	-0.35	-0.04	(3.72),	0.93
Mindfulness (FFMQ) (n=43)												
Observing	3.04	0.49	(2.15),	0.177	7.85	1.26	(2.52),	0.005	-0.78	-0.12	(2.15),	0.72
Describing	1.42	0.27	(2.26),	0.537	2.58	0.55	(1.78),	0.162	-0.25	-0.05	(1.99),	0.90
Acting with awareness	0.23	0.04	(2.65),	0.932	2.84	0.50	(2.11),	0.192	-2.88	-0.54	(2.25),	0.21
Non-judging	-1.31	-0.24	(2.57),	0.618	-0.09	-0.02	(2.46),	0.971	-3.03	-0.55	(2.52),	0.24
Non-reacting	0.62	0.14	(2.15),	0.776	0.39	0.11	(2.06),	0.851	2.94	0.68	(1.54),	0.07

FFMQ: Five Facet Mindfulness Questionnaire; JSS: Job Satisfaction Scale; MBSR: Mindfulness Based Stress Reduction; SE: Standard Error; SMC: Stress Management Course; WL: Waiting list

*Coefficients for intervention effects (β) were estimated for post-intervention and follow-up separately using ordinary least squares regressions, with treatment group membership as independent variable. The dependent variable is shown in the first column.

Table 4. Post-intervention effects of Mindfulness-Based Stress Reduction and other interventions on circadian patterns of salivary cortisol

Measure	Group											
	MBSR (n=21)				SMC (n=23)				WL (n=25)			
	Baseline Mean (SD)	Post- intervention Mean (SD)	% of change	<i>p</i> value	Baseline Mean (SD)	Post- intervention Mean (SD)	% of change	<i>p</i> value	Baseline Mean (SD)	Post- intervention Mean (SD)	% of change	<i>p</i> value
Cortisol Awakening Response ug/dL	0.26 (0.13)	0.20 (0.10)	-23	0.03	0.19 (0.10)	0.19 (0.13)	0	0.99	0.23 (0.10)	0.22 (0.12)	-4	0.75
Area under curve ug/dL	0.30 (0.13)	0.32 (0.26)	6	0.68	0.64 (0.80)	0.54 (0.66)	-15	0.51	0.27 (0.13)	0.29 (0.23)	7	0.72

MBSR: Mindfulness Based Stress Reduction; SMC: Stress Management Course; WL: Waiting list; SD: Standard Deviation

**p* values are for bootstrapped paired t-test

Adverse Events

There were no adverse events associated with this trial