

Supplementary Methods

Methods

Primary outcome measures

Primary outcome measures were selected to evaluate the patients' hand and face involvement. Objectively assessed primary outcome measures were evaluated in both IG and CG at baseline, and weeks 12, 24, and 48 at the same time of day by a trained assessor, physiotherapist (BH) blinded to group allocation and the treatment of SSc patients.

– Hand and mobility in Scleroderma

Hand and mobility in scleroderma (HAMIS) test evaluates hand function using nine items graded on a scale of 0-3, with the final score ranging from 0 (normal function) to 27 (severe immobility). HAMIS test has demonstrated reliability in the assessment of hand function in SSc (1) and has been used in several studies evaluating non-pharmacological intervention (2, 3). Values were recorded for the dominant and non-dominant hand.

– Delta finger-to-palm

Delta finger-to-palm (Δ FTP, in cm) is the difference between the distance measured between the 3rd fingertip and the distal palmar crease with fingers in full extension and the distance with fingers in full flexion (*i.e.*, as in an attempt to make a full fist with a maximal flexion in all three finger joints). Δ FTP has demonstrated to be a valid and reliable measure of finger motion in patients with SSc, which outperforms the standard FTP measured only in full flexion (4). Δ FTP was measured with a ruler for both the dominant and non-dominant hand, and a mean of two consecutive measurements with a 5s interval was calculated.

– Handgrip strength

Handgrip strength (in kg) has been used in several studies assessing hand function in SSc (3, 5). Herein, it was measured using a hydraulic hand dynamometer (Baseline 300lb ER Digital LCD Hydraulic Hand Dynamometer, Fabrication Enterprises, Inc., Elmsford, NY, USA), with a range of 0-135 kg, for

both the dominant and non-dominant hand, and a mean of two consecutive measurements with a 5s interval was calculated.

– Maximal mouth opening

The maximal mouth opening (in mm) has been used in several studies assessing mouth function in SSc (3, 6). In this study, inter-labial and inter-incisal distance were measured using a sliding metal caliper (M-222, Trystom, Olomouc, Czech Republic) as described elsewhere (6), and a mean of two consecutive measurements with a 5s interval was calculated.

– Cochin Hand Function Scale

Cochin Hand Function Scale (CHFS, also called the Hand Functional Disability Scale, Cochin Scale or Duruoz's Hand Index) contains 18 items assessing hand ability in the kitchen, getting dressed, performing personal hygiene, office tasks, and other general items, graded from 0 (no difficulty) to 5 (impossible to do). CHFS has demonstrated validity and reliability in SSc (7), was used in several studies in SSc (8, 9), and was validated for the Czech language (10).

– Mouth handicap in systemic sclerosis

Mouth handicap in systemic sclerosis (MHISS) contains 12 items specifically assessing disability involving the mouth in patients with SSc, graded from 0 (no disability) to 4 (maximum disability). MHISS has demonstrated validity and reliability in SSc (11), was used in studies in SSc (12), and was validated for the Czech language (10).

Secondary outcome measures

Secondary outcome measures were selected to evaluate the patient's global health condition, function/disability, and quality of life:

– Health Assessment Questionnaire

The Health Assessment Questionnaire (HAQ) is a widely used 20-item questionnaire assessing the physical disability in 8 domains graded from 0 (no disability) to 3 (highest disability). It has been used for SSc patients since

1991 (13, 14) and was validated for the Czech language (15).

– Scleroderma Health Assessment Questionnaire

The modified Scleroderma Health Assessment Questionnaire (SSc HAQ) has been validated in 1997 (16) and proposed as a more specific version of the HAQ for SSc by adding five specific patient-generated visual analog scales (VAS) to assess gastrointestinal and lung symptoms, Raynaud's phenomenon, digital ulcers, and overall disease severity. These five questions are graded from 0 (no interference with patient's activity) to 3 (very severe limitation). A mean of these five scores has been calculated as the "SSc HAQ-VAS" score (14, 16). An aggregated score called "SSc HAQ" ranging from 0 (no disability) to 3 (maximum disability) was calculated according to Georges et al. (17) as follows: SSc HAQ = (8 HAQ domains scores + 5 VAS scores) divided by 13. SSc HAQ was validated for the Czech language (10).

– Medical Outcomes Study 36-item Short Form Health Survey

The Medical Outcomes Study 36-item Short Form Health Survey (SF-36) is a widely used instrument to assess the quality of life (18). SF-36 contains eight domains graded from 0 (worst score) to 100 (best score) and can be summarised in two aggregate scores: the physical component score (PCS) and the mental component score (MCS) (18). SF-36 was validated for SSc (14), and the Czech language (19). Herein, the PCS and MCS were calculated from a normative sample from the general adult Czech population (19) and factor score coefficients (20).

Inclusion criteria

All patients (female and male of at least 18 years of age) were provided routine regular outpatient care by an attending rheumatologist experienced in treating SSc patients at the Institute of Rheumatology in Prague and fulfilled the EULAR (European League Against Rheumatism) / ACR (American College of Rheumatology) classi-

fication criteria for SSc in 2013 (21). The patients had to have at least mild skin involvement and functional impairment of the fingers, hands, and face defined as: a) modified Rodnan skin score (mRSS) ≥ 1 of each of these three areas (22), b) a score of the Hand and Mobility in Scleroderma (HAMIS) test ≥ 3 (1), and c) inter-incisal distance < 40 mm which defines microstomia (23). Study subjects were willing to adhere to the protocol, the planned visit schedule, and the standard-of-care pharmacological therapy indicated by the attending rheumatologist.

Exclusion criteria

Exclusion criteria comprised any other condition, including medical (e.g., cancer, rheumatoid arthritis, myositis) or psychiatric, which in the investigator's judgment would make the subject unsuitable for inclusion in the study, participation in a clinical trial within the previous three months, and inclusion in a standardised physical therapy program over the last six months.

Physiotherapy and occupational therapy program

Patients in the IG underwent a 24-week supervised intervention combining an individually personalized physiotherapy and occupational therapy program (POTp) twice a week. Each session of physiotherapy lasted one hour and was performed by the same physiotherapist (MS) experienced in treating SSc patients. Similarly, each session of occupational therapy followed the physiotherapy session, lasted 0.5 hours, and was performed by the same occupational therapist (HSm) experienced in treating SSc patients. In addition, IG patients were instructed to perform a home exercise according to the educational material prepared specifically for this study in the remaining five days of the week for 25 min per day. During the follow-up period (i.e., weeks 24–48), IG patients were asked to continue this daily home exercise (i.e., seven days a week, 25 min per day). Patients in the CG were instructed to perform the daily home exercise (i.e., seven days a week, 25 min per day) according to the educational material

throughout the duration of the study (i.e., weeks 0–48), which represents a non-pharmacological standard of care.

– Intervention unit

Each intervention unit (POTp) started with a warm-up of soft tissues of the hands and face for 15 min using an infrared lamp (Infra 500, BTL Eureco, Jablonec nad Nisou, Czech Republic).

– Physiotherapy program

The following physiotherapy program (45 min in total) included:

- a) Vodder manual lymphatic drainage (24) of the hands and upper limbs, if needed, for 5 min;
- b)* soft ball facilitation (25) of the face for 5 min;
- c) intensive skin wrinkling of the face, hands, upper limbs, and cervical spine for 5 min using a Kibler's skin fold technique (26, 27), in brief, a fold of skin and subcutaneous tissue is pinched between the thumb and the other fingers and rolled;
- d) fascial manipulation (28) of the face, scalp, upper limbs, and cervical spine for 5 min;
- e)* muscle stretching of the hands, upper limbs, face, and cervical spine for 5 min using reflective relationships from the proprioceptive neuromuscular facilitation (PNF) techniques (29) (for the hands, upper limbs, and cervical spine; in brief, muscle stretching consists of three sequential steps: contraction, relaxation, and stretching) or post-isometric relaxation (PIR) method (30) with subsequent muscle stretching (for the face);
- f) joint manipulation of the hands, upper limbs, cervical spine, and temporomandibular joint for 5 min using a high-velocity low-amplitude (HVLA) technique (31);
- g)* strengthening exercise for 10 min focused on maintaining hand function using PNF techniques (29) and therapeutic plasticine;
- h)* exercises improving facial expressions for 5 min (practice of nonverbal communication and exaggerated grimacing/facial mimicry).

Only the items marked with an asterisk

(i.e., b, e, g, and h) were included in the home exercise unit (25 min in total).

– Occupational therapy program

The subsequent occupational therapy program (30 minutes in total) was focused on training of fine motor skills of the hands, grip, and self-sufficiency, and included:

- a) soft ball facilitation of the hands for 5 min (25);
- b) sensory stimulation with Thera-Beans for 5 min (32);
- c) creative techniques to support the fine motor skills and grip of the hands for 10 min;
- d) improving self-sufficiency by training of activities of daily living (ADL) and recommendations on appropriate compensatory aids for 10 min.

Safety and adherence monitoring

Safety was assessed by recording all side effects of the supervised POTp, such as pain, exertion, or other symptoms. The intensity of the POTp was individually adapted to the current capability and general condition of each individual based on the assessment of pain and exertion. The adherence to the supervised POTp was evaluated by recording attendance and progress. The daily home exercise was monitored by a diary with a recorded performance of exercises, and a semi-quantitative assessment of exertion, pain, and dyspnoea before and after exercise, using visual analog scales (VAS). In the IG, the diaries were evaluated by the physiotherapist (MS) weekly from baseline to week 24 and at week 48. In the CG, the diaries were evaluated at weeks 0, 12, 24, and 48.

Clinical and laboratory assessments

At baseline, all subjects underwent a clinical examination by a physician experienced in treating SSc patients (RB, MT), blinded to the non-pharmacological intervention and were assessed according to international guidelines (33). All individual treatments by rheumatologists, physical/occupational therapists, and nurses throughout the duration of the study were recorded into the medical files. At baseline, 12,

24, and 48 weeks, a physician blinded to the non-pharmacological treatment assessed the mRSS (22), European Scleroderma Study Group (ESSG) disease activity index (34), and International Scleroderma Study Group Revised Preliminary SSc Severity Scale (35). Peripheral blood was provided for routine biochemistry and urine analysis, full blood count, and biobanking. Serum levels of C-reactive protein (CRP) were determined by an immunoturbidimetric technique using Beckman CoulterAU 680 analyzer (Beckman Coulter, USA), and erythrocyte sedimentation rate (ESR) was measured according to the Fahreus and Westergren method. ANAs were detected using indirect immunofluorescence on HEP2 cells, and the autoantibodies of the ENA complex (anti-U1RNP, anti-Ro, anti-La, anti-DNA-topoisomerase I, anti-Jo-1, anti-P protein, anti-Sm, and anti-centromere) were assayed by immunoblot.

Statistical analysis

Basic descriptive statistics (mean, median, standard error of the mean [SEM], inter-quartile range [IQR], skewness, and kurtosis) were computed for all variables, which were subsequently tested for normality using the Kolmogorov-Smirnov and Shapiro-Wilk tests. Baseline differences between IG and CG in selected parameters characteristic for SSc were analyzed using the Mann-Whitney U test (for continuous variables, e.g., age) and the chi-square test (for categorical variables, e.g., gender). Two-way repeated measures ANOVA (interaction: group x time) was used to compare parameter changes over time (weeks 0, 12, 24, and 48) between the IG and CG. A significant interaction was then followed by one-way repeated measures ANOVA within each group, using Fisher's Least Significant Difference (LSD) post hoc comparisons. The ANOVA tests were also adjusted for covariates, which were significantly different between the IG and CG at baseline (i.e., disease duration, mRSS and ESR).

Since most of the outcome measures lack validated minimal clinically

meaningful change in interventional studies in SSc, we decided to use a 24-week percentage change in individual parameters (i.e., week 24 vs. baseline), upon which the patients were allocated into one of the five categories inspired by the American College of Rheumatology Response Criteria 20 (ACR20) (36): a) improved by >20%, %, considered as a clinically significant improvement; b) improved by ≤20% and >0%; c) unchanged; d) deteriorated by ≤20% and >0%; e) deteriorated by >20%. The difference in the distribution of IG and CG in these five categories was tested using the chi-square test and was visualised using a tree diagram.

Data are presented as median (IQR), unless stated otherwise. Statistical significance was set at $p < 0.05$. All analyses were conducted using SPSS version 25 (SPSS, Inc., Chicago, IL, USA). Graphs were created using GraphPad Prism (version 6; GraphPad Software, La Jolla, CA, USA).

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Supplementary Table S1. Primary and secondary outcomes assessing hand function, maximal mouth opening and scleroderma-specific global function/disability.

Parameter (score range worst-best)	time	Control group				Intervention group				Inter-group analysis	
		median (IQR)	Intra-group analysis		median (IQR)	Intra-group analysis					
			unadjusted <i>p</i> -value	adjusted <i>p</i> -value		unadjusted <i>p</i> -value	adjusted <i>p</i> -value				
HAMIS dominant hand (27-0)											
	1=w0	1.0 (0.0 - 7.8)	p ¹²	<0.0001	0.0001	7.0 (4.5 - 15.5)	p ¹²	<0.0001	<0.0001	<0.0001	<0.0001
	2=w12	3.5 (1.0 - 12.0)	p ²³	<0.0001	0.0001	5.0 (2.5 - 12.0)	p ²³	<0.0001	0.0021		
	3=w24	6.5 (4.0 - 14.0)	p ¹³	<0.0001	0.0001	3.0 (0.0 - 6.0)	p ¹³	<0.0001	<0.0001		
	4=w48	6.5 (4.0 - 17.0)	p ³⁴	0.0046	0.0119	6.0 (2.0 - 10.5)	p ³⁴	<0.0001	0.0002		
HAMIS non-dominant hand (27-0)											
	1=w0	0.5 (0.0 - 7.3)	p ¹²	<0.0001	0.0002	6.0 (3.5 - 15.5)	p ¹²	<0.0001	0.0003	<0.0001	<0.0001
	2=w12	2.5 (1.0 - 12.3)	p ²³	<0.0001	0.0001	5.0 (2.0 - 11.5)	p ²³	<0.0001	0.0005		
	3=w24	6.5 (3.0 - 15.3)	p ¹³	<0.0001	0.0001	3.0 (0.0 - 6.5)	p ¹³	<0.0001	<0.0001		
	4=w48	7.0 (3.8 - 17.0)	p ³⁴	0.0420	0.0656	5.0 (2.0 - 11.0)	p ³⁴	<0.0001	0.0021		
ΔFTP dominant hand (0-10⁺)											
	1=w0	7.4 (4.9 - 9.1)	p ¹²	<0.0001	0.0031	6.6 (4.1 - 7.5)	p ¹²	0.0010	0.0009	<0.0001	<0.0001
	2=w12	7.0 (4.4 - 7.7)	p ²³	0.0100	0.0046	6.8 (5.2 - 8.1)	p ²³	<0.0001	0.0005		
	3=w24	6.7 (4.2 - 7.6)	p ¹³	<0.0001	<0.0001	7.5 (5.6 - 8.8)	p ¹³	<0.0001	<0.0001		
	4=w48	6.4 (3.8 - 7.6)	p ³⁴	0.0031	0.0548	6.5 (4.6 - 8.5)	p ³⁴	<0.0001	<0.0001		
ΔFTP non-dominant hand (0-10⁺)											
	1=w0	7.4 (3.9 - 9.1)	p ¹²	<0.0001	0.0010	5.8 (3.7 - 7.7)	p ¹²	<0.0001	<0.0001	<0.0001	<0.0001
	2=w12	7.2 (3.8 - 8.0)	p ²³	0.0178	0.0022	6.0 (4.5 - 8.2)	p ²³	<0.0001	0.0022		
	3=w24	7.0 (3.8 - 7.7)	p ¹³	<0.0001	<0.0001	6.7 (4.7 - 9.2)	p ¹³	<0.0001	<0.0001		
	4=w48	6.7 (3.4 - 7.7)	p ³⁴	0.0133	0.0523	5.6 (4.0 - 8.7)	p ³⁴	<0.0001	<0.0001		
Handgrip strength (kg) dominant hand (0-135)											
	1=w0	18.0 (11.8 - 21.0)	p ¹²	0.0661	1.0000	15.0 (11.0 - 23.0)	p ¹²	0.0006	0.0757	<0.0001	0.0002
	2=w12	14.5 (11.0 - 21.3)	p ²³	0.0325	0.5500	19.0 (13.5 - 25.0)	p ²³	0.4397	0.0884		
	3=w24	13.5 (8.8 - 19.0)	p ¹³	0.0010	0.1062	19.0 (14.0 - 25.0)	p ¹³	0.0005	0.0005		
	4=w48	13.0 (8.8 - 19.3)	p ³⁴	0.4842	1.0000	17.0 (11.5 - 23.0)	p ³⁴	0.0155	0.1414		
Handgrip strength (kg) non-dominant hand (0-135)											
	1=w0	13.5 (11.0 - 20.0)	p ¹²	0.2982	0.6998	15.0 (10.0 - 20.5)	p ¹²	0.0002	0.0003	<0.0001	<0.0001
	2=w12	13.0 (9.8 - 20.0)	p ²³	0.1162	0.0820	18.0 (11.5 - 22.5)	p ²³	0.0197	0.0035		
	3=w24	13.0 (9.8 - 18.3)	p ¹³	0.0159	0.0446	16.0 (13.0 - 25.5)	p ¹³	<0.0001	<0.0001		
	4=w48	13.0 (9.0 - 19.0)	p ³⁴	0.7334	0.8563	14.0 (9.0 - 24.0)	p ³⁴	0.0006	0.0019		
Inter-incisal distance (cm) (0-6⁺)											
	1=w0	3.2 (2.8 - 3.9)	p ¹²	<0.0001	0.0004	2.9 (2.3 - 3.9)	p ¹²	0.0039	0.0027	<0.0001	<0.0001
	2=w12	3.1 (2.5 - 3.7)	p ²³	0.3765	0.2903	3.3 (2.7 - 4.0)	p ²³	0.0034	0.0038		
	3=w24	3.0 (2.4 - 3.5)	p ¹³	<0.0001	0.0007	3.8 (2.8 - 4.5)	p ¹³	<0.0001	<0.0001		
	4=w48	3.0 (2.3 - 3.5)	p ³⁴	0.2725	0.2832	3.0 (2.5 - 4.2)	p ³⁴	0.0002	0.0009		
Inter-labial distance (cm) (0-7⁺)											
	1=w0	4.2 (3.9 - 4.5)	p ¹²	0.0221	0.1232	4.0 (3.5 - 4.5)	p ¹²	0.0010	0.0019	<0.0001	<0.0001
	2=w12	4.0 (3.7 - 4.4)	p ²³	0.9115	0.7368	4.2 (3.7 - 4.8)	p ²³	0.0019	0.0121		
	3=w24	4.0 (3.5 - 4.4)	p ¹³	0.0249	0.0843	4.5 (4.0 - 5.2)	p ¹³	<0.0001	<0.0001		
	4=w48	3.9 (3.4 - 4.2)	p ³⁴	0.0775	0.1050	4.2 (3.7 - 5.0)	p ³⁴	0.0168	0.3143		
CHFS (90-0)											
	1=w0	4.5 (1.0 - 13.0)	p ¹²	0.2850	0.4663	7.0 (0.5 - 27.0)	p ¹²	0.2304	0.6667	0.0009	0.0004
	2=w12	6.5 (1.0 - 12.5)	p ²³	0.1537	0.0178	5.0 (0.0 - 18.5)	p ²³	0.2362	0.2930		
	3=w24	4.5 (0.0 - 16.8)	p ¹³	0.0269	0.0006	5.0 (0.0 - 18.0)	p ¹³	0.0233	0.2236		
	4=w48	8.0 (2.8 - 19.0)	p ³⁴	0.2082	0.3237	6.0 (0.5 - 19.0)	p ³⁴	0.2645	0.4615		
SSc HAQ-VAS (3-0)											
	1=w0	0.6 (0.3 - 0.9)	p ¹²	0.3221	0.6916	0.8 (0.4 - 1.2)	p ¹²	0.0204	0.2613	0.0205	0.0524
	2=w12	0.6 (0.4 - 1.0)	p ²³	0.5385	0.1691	0.7 (0.2 - 0.8)	p ²³	0.7513	0.4746		
	3=w24	0.7 (0.3 - 1.2)	p ¹³	0.0680	0.0731	0.5 (0.3 - 1.0)	p ¹³	0.0223	0.4332		
	4=w48	0.7 (0.4 - 1.3)	p ³⁴	0.1325	0.1480	0.5 (0.3 - 1.2)	p ³⁴	0.4601	0.4622		
SSc HAQ (3-0)											
	1=w0	0.6 (0.3 - 0.9)	p ¹²	0.1483	0.1550	0.6 (0.2 - 1.4)	p ¹²	0.0019	0.0416	0.0016	0.0176
	2=w12	0.5 (0.2 - 1.1)	p ²³	0.8668	0.7662	0.6 (0.1 - 1.1)	p ²³	0.7886	0.4224		
	3=w24	0.6 (0.3 - 1.2)	p ¹³	0.1214	0.0963	0.6 (0.2 - 1.1)	p ¹³	0.0105	0.2202		
	4=w48	0.7 (0.3 - 1.2)	p ³⁴	0.2641	0.2707	0.7 (0.1 - 1.2)	p ³⁴	0.5715	0.7320		

IQR: inter-quartile range; HAMIS: Hand And Mobility in Scleroderma; ΔFTP: delta finger-to-palm; CHFS: Cochin Hand Function Scale; SSc HAQ-VAS: a mean of five specific patient-generated visual analog scales of SSc HAQ; SSc HAQ: aggregated score of the modified Scleroderma Health Assessment Questionnaire; w0: week 0 (baseline); w12: week 12 (after 12 weeks of intervention); w24: week 24 (after 24 weeks of intervention); w48: week 48 (24 weeks after the end of intervention); p¹²: difference between time 1 and 2; p²³: difference between time 2 and 3; p¹³: difference between time 1 and 3; p³⁴: difference between time 3 and 4. Unadjusted data are presented as median (IQR). Statistically significant differences (*p*<0.05) are marked in bold. Intra-group comparisons were performed by one way ANOVA. Inter-group comparisons were performed by two way ANOVA. *P*-values are provided for both unadjusted data and for data adjusted for disease duration, modified Rodnan skin score and erythrocyte sedimentation rate.

Supplementary Table S2. Primary and secondary outcomes assessing mouth disability, global function/disability and quality of life.

Parameter (score range worst-best)	time	Control group			Intervention group			Inter-group analysis unadjusted <i>p</i> -value
		median (IQR)	Intra-group analysis		median (IQR)	Intra-group analysis		
			unadjusted <i>p</i> -value			unadjusted <i>p</i> -value		
MHISS (48-0)								
	1=w0	13 (1 - 34)	p ¹²	0.8191	17 (0 - 47)	p ¹²	0.1172	0.2977
	2=w12	11 (1 - 36)	p ²³	0.9635	15 (0 - 47)	p ²³	0.6157	
	3=w24	12 (0 - 37)	p ¹³	0.9328	14 (0 - 46)	p ¹³	0.1198	
	4=w48	15 (1 - 39)	p ³⁴	0.0854	18 (0 - 42)	p ³⁴	0.3049	
HAQ (3-0)								
	1=w0	0.38 (0.0 - 1.50)	p ¹²	0.9027	0.63 (0.0 - 2.38)	p ¹²	0.2904	0.3519
	2=w12	0.31 (0.0 - 2.13)	p ²³	0.3768	0.50 (0.0 - 2.25)	p ²³	0.9069	
	3=w24	0.50 (0.0 - 1.88)	p ¹³	0.2812	0.63 (0.0 - 2.50)	p ¹³	0.2293	
	4=w48	0.50 (0.0 - 2.25)	p ³⁴	0.1459	0.88 (0.0 - 2.50)	p ³⁴	0.3477	
SF-36 PCS (16.6-57.9)								
	1=w0	34.7 (27.5 - 44.9)	p ¹²	0.7517	41.9 (24.6 - 49.4)	p ¹²	0.3278	0.9412
	2=w12	35.3 (25.7 - 43.2)	p ²³	0.4954	43.6 (25.0 - 48.4)	p ²³	0.4124	
	3=w24	32.2 (23.4 - 44.3)	p ¹³	0.4049	34.4 (27.5 - 45.5)	p ¹³	0.7514	
	4=w48	32.4 (26.9 - 46.2)	p ³⁴	0.2969	35.6 (29.0 - 50.0)	p ³⁴	0.5878	
SF-36 MCS (5.5-63.6)								
	1=w0	47.0 (35.3 - 53.1)	p ¹²	0.8816	42.4 (34.3 - 55.0)	p ¹²	0.0524	0.5770
	2=w12	47.6 (37.9 - 53.9)	p ²³	0.4410	47.4 (38.3 - 54.6)	p ²³	0.8244	
	3=w24	47.2 (38.3 - 55.7)	p ¹³	0.6180	50.5 (37.3 - 55.0)	p ¹³	0.1524	
	4=w48	44.6 (38.1 - 49.6)	p ³⁴	0.1975	46.2 (33.2 - 55.7)	p ³⁴	0.0939	

IQR: inter-quartile range; MHISS: Mouth Handicap in Systemic Sclerosis; HAQ: Health Assessment Questionnaire; SF-36: Medical Outcomes Study 36-item Short Form Health Survey; PCS: Physical Component Score; MCS: Mental Component Score; w0: week 0 (baseline); w12: week 12 (after 12 weeks of intervention); w24: week 24 (after 24 weeks of intervention); w48: week 48 (24 weeks after the end of intervention); p¹²: difference between time 1 and 2; p²³: difference between time 2 and 3; p¹³: difference between time 1 and 3; p³⁴: difference between time 3 and 4. Unadjusted data are presented as median (IQR). Intra-group comparisons were performed by one way ANOVA. Inter-group comparisons were performed by two way ANOVA. *P*-values are provided only for unadjusted data.