Appendix

**Appendix Text: The** **Physical Self-Care Support Program**

The main goals of the physical self-care support program included promoting awareness about the syndrome, teaching self-stretching techniques and encouraging postural changes in everyday activities. Essentially, it sought to develop the capacity for self-management of healthcare problems related to Fibromyalgia (FM). The program focused on awareness-raising and individual motivation leading to changes in behavior, which are a basic requirement for clinical improvements of individuals with chronic illnesses.

This program consisted of weekly 1,5h-long sessions over the period of 10 weeks with two groups of approximately 10 individuals with a tolerance of up to 20% non-consecutive absence. Extra sessions were held on subsequent days to ensure a continuity in treatment.

Inspired by Freire’s pedagogy approach supported by the assumption that “educational practices can only be effective and efficacious as long as learners participate freely and critically in a culture circle”, the sessions began with chat circles where experiences were shared and questions regarding the previous session were clarified. The circle layout of the seats spoke to the sense of equality among participants. There were moments when the floor was used as part of the practice field with mattresses made available to provide comfort and aid.

At the sessions, participants were given leaflets with exercises they had learnt so that they could keep on with the treatment at their homes, as well as postural guidelines for conducting everyday activities and preventing intensification of symptoms. The material was self-explanatory containing a wealth of illustrations and written in plain language.

Home activities were recorded in weekly journals in which each patient took notes of the recommendations they were following and from which the levels of adherence to the program could be measured by the professionals involved. Teaching resources and strategies included slideshows, whiteboards, demonstrations, games and group dynamics.

A physiotherapist was thought to be the most suitable professional to be running the program as facilitators. The physical self-care support program designed for FM patients who took part in the randomized clinical trial included 36 posture tips and 46 self-stretching exercises, of which 11 were for spine, 16 for lower limbs, 10 for upper limbs and 09 for body mobility and flexibility. At first, the stretching was done in 03 sets of 30 seconds holding the position. Later, this was extended to 45 seconds, and afterward to 1 minute, which is said to be the ideal duration for maximizing the benefits of the technique.

Awareness-raising and/or myofascial tissue releasing practices were also presented extending the benign effects of stretching. Preparatory techniques for the stretching included diaphragmatic breathing, active muscle relaxation, self-massage and warm compress.

The contents of the program were progressively distributed along 10 weeks so as to ensure that participants learn them and are physically prepared. It is worth stressing the need to have goals set not only for each session but also for the remaining days of the week when they perform their home care routine.

The physical self-care program was developed in three stages, as follows: I – Information and physical preparation (sessions 1-3); II – flexibility gains and treatment of specific body areas (sessions 4-7); III – promoting independence in managing symptoms through knowledge integration (sessions 8-10). The themes and corresponding specific goals of the work were distributed as shown in Table 1.

The common goals of the sessions were: motivating adherence to the program and to changes in behavior, highlighting the importance of physical self-care in treating FM; performing the necessary adaptations to the physical activities proposed so that treatment could be personalized; teaching posture tips and how they apply, underlining the need for adopting correct postures for everyday activities; explaining the importance of keeping good body flexibility through daily stretching sessions for treatment of FM; developing patient ability to design weekly stretching protocols.

At the end of the physical self-care support program participants were given self-care kits, Eco bags, folders, pens, eraser tip pencils, notepads, relaxation music CDs, spiky balls, tennis balls, pool noodles, bandage tapes, 10 leaflets and guides with posture tips.

**Appendix Table 1**: **Themes developed and their specific goals for each weekly session in the physical self-care support program.**

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| **Day** | **Theme** | **Specific Goals** |
| **Day 01** | Importance of self-care in treating FM: discovering individual motivation from a group practice | * Presenting the program proposal and promoting the group, highlighting the role of each member of the group (30 min). * Explaining theory about FM and its main characteristics (60 min). |
| **Day 02** | Encouraging the use of relaxation techniques and diaphragmatic breathing in relieving symptoms and body consciousness | * Training and developing ability to perform relaxation techniques and diaphragmatic breathing (45 min). * Developing the capacity for body consciousness from deep relaxation (45 min). |
| **Day 03** | Warm compress and therapeutic massage: resources for treating specific body areas | * Promoting the understanding of muscular tension and the importance of treating it by introducing warm compress and self-massage as resources in alleviating painful symptoms (40 min). * Teaching and developing the ability to properly applying warm compress and self-massage with the hands, spiky ball, tennis ball and pool noodle (50 min). |
| **Day 04** | Morning stretching: waking up actively and free from painful symptoms | * Talking about morning stiffness in FM, offering active mobilizations and short-duration stretching as alternatives to relieve symptoms (20 min). * Explaining stretching and its importance in treating FM (20 min); * Teaching short-duration stretching workout that can be introduced to morning routine daily (50 min). |
| **Day 05** | How to take care of the spine? | * Introducing the anatomy of the spine, placing it as the structural basis of human posture (30 min). * Teaching stretching possibilities for the spine (60 min). |
| **Day 06** | Lower Limbs: how to take care of them. | * Introducing the anatomy of the lower limbs, placing them together with the spine as the highlight for body flexibility (30 min). * Teaching stretching possibilities for lower limbs (60 min). |
| **Day 07** | Upper Limbs: how to take care of them. | * Introducing the anatomy of the upper limbs, highlighting them as instruments for carrying out daily activities at home and work (30 min). * Teaching stretching possibilities for upper limbs (60 min). |
| **Day 08** | Building individual therapeutic programs for daily stretching | * Integrating knowledge from previous sessions by drafting individual stretching protocols to be applied daily (90 min). |
| **Day 09** | Global stretching as a way to develop and sustain life quality | * Introducing global stretching as a form of physical activity not only as a treatment option (30 min). * Teaching global stretching techniques for maintaining good levels of flexibility (60 min) |
| **Day 10** | Self-care continues | * Group discussion about the positive and negative aspects of the program (45 min). * Awakening motivation to continue with the activities by looking back at their initial conditions (45 min). |

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| **Appendix Table 2**: **Sociodemographic and baseline clinical features of the participants who completed and did not complete the study (numbers represent number and percentage, except where indicated otherwise).** | | | | | |
| **GROUP** | | | | | |
| **VARIABLES** |  | | | **Completers (n = 40)** | **Non-completers (n = 5)** |
| **Age (years) – mean ± SD** |  | | | 46.43 ± 6.32 | 44.00 ± 4.30 |
| **Disease duration (years) – median (percentiles 25th and 75th)** | | | | 5.5 (4, 10) | 5 (2, 13.5) |
| **Completed basic school** | | | | 20 (50.0) | 3 (60.0) |
| **Occupational status** | | Employed | | 19 (47.5) | 3 (60.0) |
|  | | Unemployed | | 19 (47.5) | 2 (40.0) |
|  | | On social security | | 2 (5.0) | 0 (0.0) |
| **Regular physical activity** | | |  | 8 (20.0) | 1 (20.0) |
| **Previously received physiotherapy** | | |  | 17 (42.5) | 0 (0.0) |
| **Active medications** | | |  |  |  |
| **Tricyclic antidepressants** | | |  | 20 (50.0) | 1 (20.0) |
| **Selective serotonin uptake**  **inhibitors** | | |  | 5 (12.5) | 0 (0.0) |
| **Dual inhibitors of serotonin and**  **norepinephrine reuptake** | | |  | 1 (2.5) | 2 (40.0) |
| **Anticonvulsants** | | |  | 12 (30.0) | 1 (20.0) |
| **Non-steroidal anti-**  **inflammatory drugs** | | |  | 31 (77.5) | 4 (80.0) |
| **Total FIQ Score– mean ± SD** | | |  | 75.97 ± 14.33 | 75.55 ± 16.33 |
| **VAS of Pain – mean ± SD** | | |  | 8.06 ± 1.60 | 8.96 ± 1.32 |
| **Flexibility (cm) – mean ± SD** | | |  | 20.87 ± 9.40 | 12.56 ± 6.99 |
| SD: standard deviation; FIQ: Fibromyalgia Impact Questionnaire; VAS: Visual Analogue Scale; SRT: Sit and Reach Test . | | | | | |

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| **Appendix Table 3**: **Results for the primary outcomes (FIQ, VAS of pain, and flexibility after at weeks 11-12) using multiple imputation.\*** | | | | |
| **VARIABLES** | GROUP | |  |  |
| **PSCSP**  Estimated marginal mean ± SE (number of patients) | **Control**  Estimated marginal mean ± SE (number of patients) | Between group difference (95% CI) | P value |
| **Total FIQ Score** | 64.71 ± 2.51 (N=23) | 76.85 ± 2.56 (N=22) | -12.15 (-19.52 to -4.77) | 0.001 |
| **VAS of pain** | 5.89 ± 0.52 (N=23) | 7.20 ± 0.52 (N=22) | -1.30 (-2.82 to 0.22) | 0.093 |
| **Flexibility on SRT (cm)** | 27.16 ± 1.28 (N=23) | 19.73 ± 1.31 (N=22) | 7.44 (3.67 to 11.21) | <0.001 |
| \* Results were adjusted for baseline values of Total FIQ score, VAS of pain, and Flexibility on SRT included simultaneously in the covariance analysis models. PSCSP: Physical Self-Care Support Program; SE: standard error; CI: confidence interval; CCA: Complete case analysis; MI: multiple imputation; FIQ: Fibromyalgia Impact Questionnaire; VAS: Visual Analogue Scale; SRT: Sit and Reach Test. | | | | |