Supplementary Table 1. Overview of the Upa Yoga program.

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| **Program Component** | **Description** | **Rationale** |
| *Directional Movement of the Arms* | This practice involves extending the arms in four directions (sideways, front, up and down) by rotating the wrists, while consciously focusing on the inhalation and exhalation of breath with each movement. | Studies show that fibromyalgia is common among patients living with IBS 30. This could lead to muscle and joint discomfort, fatigue, and poor sleep quality. The principle behind this practice is to lubricate the fluids in the joints, increase circulation and activate the energy nodes in these joints. Doing these practices everyday can relieve muscle and joint stiffness and reduce pain over time. This practice is recommended by the Isha Foundation to increase strength and flexibility in preparation for Yoga Namaskar. |
| *Neck Practices* | There are five sets of neck practices, each stretching the neck and final one working on the shoulder area. | Neck pain is frequently related to muscular tension. Perceived stress which is frequently observed in patients with IBS can increase muscle tension. These neck exercises help relieve stress, therefore positively IBS symptoms. This practice is recommended by the Isha Foundation to increase strengths and flexibility in preparation for Yoga Namaskar. |
| *Yoga Namaskar* | This practice involves a series of seven consecutive steps of upper body stretching and squatting, aligned with breathing patterns. | This practice activates the lumbar region of the spine and strengthens the spinal muscles31.While Yoga Namaskar has not been specifically studied in patients with IBS, yoga squatting postures have been associated with significant decrease in depression among nine individuals with IBD 20 and anxiety in a randomized self as control study in 30 healthy subjects32. |
| *Alternate Nostril Breathing (Nadi Shuddhi)* | The participant sits cross-legged with the spine comfortably erect and eyes closed. Closing the right nostril with the thumb, inhaling and exhaling through the left nostril. This is repeated on the right nostril by closing the left nostril with the ring finger. | Alternate nostril breathing is traditionally considered to alleviate mental unrest and promote physical and mental balance.33 34 It has been demonstrated to decrease perceived stress and improve autonomic function in a randomized control trial compared to control subjects in healthy male volunteers, and decreased state anxiety in a prospective study.35 36 |
| *Mantra Meditation (AUM chanting)* | The participants sit cross-legged, and with eyes closed, uttering each of these 3 sounds 7 times. The important aspect to this utterance is the awareness of the reverberations each of the sounds produces in the corresponding parts of the body: a - below the navel, o - mid-point of the chest, m - pit of the throat. | This mantra is thought to facilitate energy flow, and through vibratory mechanisms, creates peace and harmony leading to increased mental alertness and may improve symptoms of depression.37 38 |
| *Breath watching* | The participants sit cross-legged with eyes closed and hold a hand gesture called the Yoga Mudra (the tips of the thumb and index finger come together forming a circle). They are instructed to maintain a gentle focus on the mid-point between both eyebrows (at the level of the pineal gland), while being conscious of the gentle movement of breath happening in their body. | Breathing in a focused manner can be used as a tool to promote positive changes to the mind, body and emotions.39 Significant reduction in the level of state anxiety was found in a group of healthy male volunteers when they practiced breath awareness.16 |