**FRI0722HPR Table 1**. Comparison of JAB-Q Psychosocial, JAB-Q Function and CHAQ scores of children with JIA

| | | BETY-BQ Psychosocial | BETY-BQ Function | CHAQ |
|---|---|---|---|---|
| BETY-BQ Psychosocial | r | 1 | 0,347** | 0.395** |
| p | | 0.000 | 0.000 | |
| BETY-BQ Function | r | 0,346** | 1 | 0.678** |
| | p | 0.000 | | 0.000 |
| CHAQ | r | 0.395** | 0.678** | 1 |
| | p | 0.000 | 0.000 | |

**Conclusion:** The psychosocial status of children is not affected by functional status. Psychosocial status may be affected by different variables. It was concluded that children should be encouraged to participate in social activities independently their functional problems. Further studies are needed to examine the other variables' effects on psychosocial status in children with JIA.

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## FRI0723-HPR A MIXED METHOD STUDY TO EXPLORE THE FEASIBILITY AND PATIENT SATISFACTION OF TWO DIFFERENT EXERCISE PROGRAMS IN SYSTEMIC SCLEROSISASSOCIATED MICROSTOMIA

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**Background:** Systemic sclerosis (SSc) is a severe autoimmune disease and fibrotic cutaneous involvement of hands and face is a typical characteristic. Oral involvement with reduced oral aperture is frequent and associated with impaired food intake, oral hygiene and secondary dental problems. Several studies have shown that stretching (placing the thumbs in opposite corners of the mouth hand, pulling outward) and oral augmentation (tongue depressors between the back molars) exercises can increase oral aperture but is often hampered by low adherence rates.
**Objectives:** The aim of this descriptive explorative mixed method study was to explore feasibility, patient satisfaction and effectiveness of two exercise programs, Therabite and orofacial exercises, in systemic sclerosis associated microstomia.
**Methods:** We included adult patients suffering from systemic sclerosis (fulfilling the ACR/EULAR 2013 criteria) and microstomia (maximal oral aperture <40mm). We discerned two groups: Group A exercised with a passive jaw motion device (Therabite®), and Group B performed mouth-stretching exercises. Patients were expected to exercise for 10 minutes, 3 times/day for 3 months. Patients were contacted 4 times by telephone to address encountered problems and completed an exercise diary to document the adherence rate. Patients were evaluated at baseline, 3 months (period without intervention), 6 months (after 3 months of intervention) and at 9 months (post-intervention visit). At time point 6 months, semi-structured one to one interviews were conducted. Interviews were recorded, transcribed verbatim and systematically analyzed using Qualitative Analysis Guide of Leuven.
**Results:** We included 6 women and 3 men, with a median age of 60 years (range 40-75) and a median disease duration of 8 years (range 3-22). At time point 6 months, all patients in group A (n=4) and 4 patients in group B (n=5) improved with a median of 9mm (range 2-10) and 7mm (range 4-11), respectively. One patient had a decrease of 2mm. The compliance, measured as the ratio of executed exercises relative to the planned number of exercises ranged between 63.7% and 98,9% in group A and between 48.5% and 97,4% in group B. Details are shown in Table 1. In the follow-up period, we documented maintenance of the observed increase in oral aperture in those patients that continued exercising daily. In all others, maximal oral aperture declined again. All 9 patients attended the interview. Three main themes emerged from the data: drivers, challenges and perceived improvement. Patients highlighted several drivers to perform the exercises at home, such as the motivation to improve current disability cause by microstomia. Furthermore, they equally highlighted several challenges regarding feasibility, such as the struggle to exercise multiple times a day. Most of the patients were hoping that they could keep their improvement. They were willing to continue practicing if necessary, but with a lower frequency.
**Conclusion:** This study suggests that both types of intervention can improve maximal oral aperture. The adherence to therapy was higher than expected but none of the patients considered it feasible to continue practicing 3 times/day in the long-term resulting in a decline of improvement post intervention. This is the first study to report the feasibility of the exercises for the patients and can be very useful for health professionals giving guidance. Future studies are needed in order to define exercise programs that are feasible and can be sustained in the long term.
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Table 1: Evolution in maximal oral aperture for both intervention groups

| Intervention group | Participant number | Evolution between M3 and M6 | Evolution between M6 and M9 | Adherence rate between M3 and M6 |
|---|---|---|---|---|
| A | 1 | +9 mm | -3 mm | 95.2% |
| | 2 | +2 mm | -2 mm | 85.7% |
| | 3 | +9 mm | -3 mm | 98.9% |
| | 4 | +10 mm | +4 mm | 63.7% |
| B | 1 | +11 mm | -2 mm | 97.4% |
| | 2 | +10 mm | +2 mm | 48.6% |
| | 3 | +4 mm | -2 mm | 68.3% |
| | 4 | +7 mm | +1 mm | 93.8% |
| | 5 | -2 mm | +2 mm | 48.5% |

M: month; M3: start intervention; M6: end of intervention; M9: post-intervention.

## FRI0724-HPR THE EFFECTIVENESS OF TAI CHI CHUAN IN OSTEOARTHRITIS OF THE KNEE: A SYSTEMATIC REVIEW

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**Background:** Osteoarthritis (OA) is the most prevalent joint disease in the elderly. The signs and symptoms are degeneration of joint surface, pain, stiffness, swelling and decrease in physical function. Knee OA is the most common joint disease and more prevalent among older adults. Tai Chi Chuan is a safe exercise modality of Chinese origin, which may be a potentially in reducing symptoms.
**Objectives:** The aim of systematic review was to identify the effects of Tai Chi Chuan in the elderly with knee osteoarthritis.
**Methods:** This systematic review was registered in Prospero (CRD42018098699). MEDLINE, EMBASE, PEDro, Cochrane, Scopus, Scielo, Lilacs and Web of Science, were screened between May 2008 to May 2018 in English, Spanish, Portuguese and Mandarin language. Randomized controlled trials (RCTs) comparing Tai Chi to control conditions were included. Two authors independently assessed risk of bias using the risk of bias tool recommended by Jadad index. Outcome measures included were pain, stiffness, muscular strength, functionality and quality of life.
**Results:** In the search we founded 161 studies, MEDLINE (29), Pedro (58), Web of Science (17), Embase (29), Cochrane (6), Scopus (18), Manual search (4). Eight articles were included and seven showed the effectiveness of Tai Chi Chuan, being higher to the interventions of the control groups, consisting of self-care educational activities, or strengthening and endurance exercises of knee flexors and extensors. Only one study, that patients received a lower limb resistance training program, presented better results in pain, stiffness and physical function scores. Tai Chi Chuan was not associated with adverse events.
**Conclusion:** Tai Chi Chuan was effective in improving pain, stiffness and physical function of sleep quality, in addition to increased speed and step length during gait, and strength gain of knee extensor muscles in elderly patients with knee OA. This systematic review found moderate