recommendations for people who have RA was highlighted in the qualitative study, and delivery preferences were identified. Intervention development was mapped to the Behaviour Change Wheel [3] and employed the Theory of Planned Behaviour as its theoretical basis. The proposed intervention is outlined in Table 1.

Conclusions: We have developed a theory-based intervention which considers the preferences of key stakeholders. Future research will determine the feasibility and effectiveness of this intervention.

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THU0739-HPR THE PHENOMENON OF ALEXITHYMIA IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Background: Alexithymia as a radical in the structure of premorbid personality is attracting the attention of researchers as one of the possible psychological risk factors in the development of psychosomatic disorders in rheumatic diseases. Clinical experience supports the evidence of the relevance of alexithymia conception in relation to the many somatic patients, who show a limited ability to describe and differentiate emotion and create fantasies, and hence indicate the role of alexithymia phenomenon in the pathogenesis of psychosomatic disorders in SLE.

Objectives: To study the relationship of the levels of alexithymia with other clinico-psychological characteristics.

Methods: 87 patients with systemic lupus erythematosus (SLE) was surveyed with the Toronto Alexithymia Scale (TAS).

Results: According to the results obtained, SLE patients demonstrated a high level of alexithymia (73.86 ± 2.6 points). The results of the research showed that the level of alexithymia, on one hand, does not depend upon gender, age, character and activity of the pathological process ($p > 0.05$). On the other hand, there was a significant inverse correlation between alexithymia and the level of the patient's education ($r = -0.42$ $p = 0.031$). Moreover, internality in interpersonal interaction ($r = -0.44$ $p = 0.028$), and significant direct correlation with indicators such as, the disease duration ($r = -0.46$ at $p = 0.01$), the intensity of neurotic disorders (asthenia ($r = -0.42$ $p = 0.033$), depression ($r = -0.52$ $p = 0.006$), anxiety ($r = 0.43$ $p = 0.028$), hypochondriasis ($r = -0.48$ $p = 0.01$), as well as psychological defense mechanism "Regression" ($r = 0.42$ $p = 0.022$).

Conclusions: Therefore, between the development of alexithymia in SLE patients and certain clinico-psychological characteristics, a particular association exists which provides a definite step for psychotherapeutic interventions aimed at correcting alexithymia personality traits of SLE patients.

Disclosure of Interest: None declared

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THU0740-HPR INFLUENCE OF BIOFEEDBACK THERAPY ON THE MICRO-CIRCULATION IN SYSTEMIC SCLEROSIS

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Background: Microcirculatory disorders are one of the most important clinical symptoms of systemic sclerosis (SSc), therefore we found it feasible to evaluate the clinical efficacy of biofeedback (BFB) in the complex therapy of patients with SSc based upon analysis of nailfold capillaroscopy.

Objectives: To study the impact of the method of biofeedback therapy on microcirculation disturbances in patients with SSc.

Methods: The study included 40 patients with SSc under observation. Among the patients examined, 95% were women and 5% were men. The average age of the patients - 38 ± 3.3 years, duration of illness - 14 ± 2.6 years. Raynaud's phenomenon (RP) was observed in all the patients. A severe form of RP was seen in 80% of the patients. The effectiveness of biofeedback therapy was analyzed by studying the dynamics of the measures from the nailfold capillaroscopy and comparing the data obtained of patients from the main and control groups.

Results: It was found that, patients who were under biofeedback therapy, showed significant positive dynamics in the following signs of capillaroscopic picture: dilation of the capillaries ($c2 = 9.643$ $p = 0.026$), morphological changes of the capillaries ($c2 = 4.90$ $p = 0.027$), and hemorrhage ($c2 = 4.514$ $p = 0.034$). In the control group of patients, in only one indicator of capillaroscopy that a significant change was noted, particularly by the presence of dilated capillaries ($c2 = 5.833$ with $p = 0.016$). These findings suggest that treatment results were significantly better in the main study group of patients with SSc.

Conclusions: The implementation of biofeedback therapy favors a decrease in reflex musculo-tonic syndromes, improvement of microcirculation and peripheral blood flow and significantly allows an amelioration in the results of SSc therapy.

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THU0741-HPR PLACEBO AND NOCEBO EFFECTS INDUCED BY CONTEXTUAL FACTORS. A SURVEY ON BELIEFS AND ATTITUDES OF ITALIAN MUSCULOSKELETAL PHYSIOTHERAPISTS

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Background: Context effects are well known and were described as integral part of the clinical setting (1). The conscious use of contextual factors (CF) has been recently proposed as an effective modality capable to influence the physiotherapy outcome by facilitation of placebo responses. (2) To date, the knowledge about CF adoption in clinical practice of physical therapists is absent.

Objectives: The aim of this study was to investigate frequency of use, beliefs and attitudes about contextual factors among Italian physical therapists specialized in manual therapy (OMTs)

Methods: An invitation to participate in an online survey was sent to 906 OMTs through the database of the Master in Musculoskeletal Rehabilitation (MRDM) of University of Genova by SurveyMonkey®. These likely correspond to more than 85% of the whole OMTs population in Italy. A 17 items questionnaire and two clinical scenarios assessed behaviour, beliefs and attitudes of OMTs about CF adoption in clinical practice and data were analysed by descriptive statistic.

Results: 906 OMTs were invited to participate in the survey and 558 responded (62%). The majority of OMTs uses CF in their practice frequently (52%). They believe that an actual effect of CF can occur in acute pain (57%), chronic pain (78%) and rheumatologic disorders (56%). OMTs consider the use of CF ethically acceptable when it exerts beneficial psychological effects and their effectiveness was shown during clinical experience (31%). They disagree on the adoption of CF when they are based on deception, undermine the trust between OMT and patients, create legal problems or produce side effects (17%). 38% of respondents do not communicate the use of CF to their patients and they adopt CF as addition to other physical therapy interventions with the aim of optimizing clinical responses (20%). Expectation and psychological mechanisms are believed to be the main aspects behind placebo and nocebo effects induced by CF (7%).

Conclusions: The use of CF is quite common among Italian OMTs and they mostly had positive attitudes towards their use and effectiveness.

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THU0743-HPR A NEW AND ALTERNATIVE TREATMENT IN SCLERODERMIC DIGITAL ULCERS

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Background: Digital ulcers (DUs) are a major clinical problem for patients with systemic sclerosis (SSc). Patients with DUs may suffer from severe pain and often undergo a limitation of daily life activities, thus resulting in a functional impairment with a significant impact on the patient's health-related quality of life. Prevention of further complications and lesions is possible if the initial evaluation is performed early and correctly and if a treatment is started promptly.

Objectives: The primary objective is to demonstrate the effect of Lecoxen cream (Ekuberg Pharma, Italy) in comparison with another cream (Fitostimoline cream, DAMOR SpA, Italy) on the reduction of the number and size of DUs in patients with systemic sclerosis evaluating in addition the reduction of pain dealing with DUs and quality of life.

Methods: In this single-blind randomized progressive trial 39 women, with confirmed digital ulcers present for at least 4 weeks with a surface area greater than 0.5 cm² but smaller than 2.5 cm², that follow Iloprost therapy (0.05mg/2 times/month), afferent to the Operative Unit (O.U.) of Rheumatology of the Local Health Unit (LHU) of San Cesario di Lecce, were randomized to receive the topical application of Lecoxen cream (group I: 20 women) or Fitostimoline cream (group II: 19 women). We took digital photographs to measure ulcer surface area and to draw the periwound area before the first cream application and after 30 days. Then an evaluation of DUs diameter and number was carried out. A

tailored questionnaire was administered as Visual Analogue Scale (VAS) during monitoring visits, to evaluate intensity of pain. Furthermore quality of life was monitored through Short Form (36) Health Survey.

Results: Mean age was similar in the two study groups with values of 45.4 ± 5.6 years and 46.1 ± 4.1 respectively. In the patients treated with Lecoxen cream, the reduction of lesion size was significantly higher (70%–75%) ($p < 0.001$) in comparison with those registered in group II (40–45%) ($p < 0.05$); a significant improvement was observed in levels of pain in Group I (30 days: $p < 0.001$), while in group II the results of reduction were not significant. The analysis of SF36 survey showed highly significant reduction ($p < 0.001$) of indexes in group I. At last visit, 32 ulcers were healed: 17 in the group I ($p < 0.001$), 11 in the Group II ($p < 0.01$). Two-way analysis of variance (ANOVA) test was used to examine differences. Intragroup changes were evaluated with the paired Student t-test. A p-value of < 0.05 was considered to be significant.

Conclusions: Lecoxen cream showed the greatest effect on the mean reduction of the lesion size and pain levels. In the patients treated with Lecoxen cream the reduction of lesion size was 70%–75%; the reduction was smaller in the group II. At last visit, 32 ulcers were healed: 17 in the group I, 11 in the Group II. Data collected from SF36 surveys are very interesting, because they show a clear improvement in quality of life of scleroderma patients, who underwent three different treatments. In particular, a better subjective perception of tactile sensation and minor discomfort in the pathological skin have been reported. On the basis of the results, it could be argued that the medical device Lecoxen cream may be useful in the treatment of DUs in patients suffering from systemic sclerosis.

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THU0744-HPR

ASSESSMENT OF ADALIMUMAB SUBCUTANEOUS INJECTION RELATED PAIN AND EFFECTIVENESS OF NURSE SUPPORT FOR PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Subcutaneous injection of biologic agents gives more freedom and independence for patients with rheumatoid arthritis (RA) than intravenous injection. Despite this, patients with RA sometimes select intravenous injections due to concerns over self-injection, such as injection anxiety, including pain, and lack of confidence in giving a self-injection [1]. It is reported that one in five people are estimated to experience injection anxiety [2]. Therefore, an understanding of subcutaneous injection pain and anxiety and support for anxiety of patients with RA are important for appropriate usage of subcutaneous biologics.

Objectives: The aim is to evaluate pain and anxiety caused by adalimumab (ADA) subcutaneous injection and assess the effectiveness of nurses' care.

Methods: Patients with RA using ADA self-injections were enrolled. Pain was assessed in 4 categories: general, needle insertion, drug injection, needle removal. Pain was evaluated using Visual Analogue Scale (VAS) scale. Effectiveness of support by nurses was also assessed using self-questionnaires and free-format comments. Statistical analyses were performed utilizing Wilcoxon's signed rank test and Spearman's rank correlation coefficient.

Results: Twenty patients (Male: Female, 4: 16) completed the questionnaire. Average age and disease duration were 68 and 12.6 years, respectively. Mean $\pm$ SD of Pain VAS were 34.9 ± 28.1 mm (General), 30.3 ± 30.6 mm (needle insert), 42.5 ± 35.6 mm (drug injection) and 11.8 ± 18.4 mm (needle removal). There were no statistically significant differences between general pain and needle insertion ($p = 0.631$), or general pain and drug injection ($p = 0.121$). However, statistically significant differences were found between general pain and needle removal ($p = 0.001$). Moreover, there were statistically significant differences between needle insertion and removal ($p = 0.003$), and drug injection and needle removal ($p = 0.00048$). General pain showed statistically significant correlation with needle insertion pain ($r = 0.653$, $p = 0.0018$) and drug injection pain ($r = 0.615$, $p = 0.004$). However, general pain was not correlated with needle removal pain ($r = 0.137$, $p = 0.565$).

Patients with RA answered that support by nurses was effective for relieving pain (30%), reduction of anxiety (35%) and improving treatment motivation (50%). According to the patients, nurses helped raise motivation by explaining that treatment prevents the progression of RA and allows many patients to feel better and have less pain. Interaction with nurses appears to be effective in reducing injection pain and anxiety and improving motivation for self-injection treatment.

Conclusions: These data indicate that needle insertion and drug injection pain have great influences on general pain. Support by nurses is likely to reduce injection anxiety and pain, resulting in higher motivation toward self-injection treatment.

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THU0745-HPR

A COMPARISON THE EFFECTIVENESS OF WHOLEBODY VIBRATION, PROGRESSIVE RESISTIVE EXERCISE AND HOME-BASED EXERCISE IN PATIENTS WITH KNEE OSTEOARTHRITIS

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Background: Knee osteoarthritis (OA) is the most common type of lower extremity OA. Systematic reviews of randomized controlled trials (RCTs) indicate that exercise therapy reduces pain and patient-reported disability in patients with knee osteoarthritis (OA), but to date, type and the optimal exercise regimen has not been identified.

Objectives: The aim of our study was to determine the effects of whole body vibration training exercise, progressive resistive exercise, home-based exercise used in osteoarthritis treatment on pain, muscle strength, functional status and quality of life.

Methods: Forty five patients (mean age= 53.86 ± 5.33 years, 43 female, 2 male) diagnosed with bilateral knee osteoarthritis (Grade II-III, Kellgren & Lawrence) were included in this study. The assessments were performed at baseline, after third months when they completed the exercise programme and sixth months. Whole body vibration exercise training in Group-1; progressive resistive exercise training in Group-2; home-based exercise training in Group-3; were applied for three days per week, three months, totally 36 sessions. All the groups were included patient education programme at baseline. The pain was assessed according to Visual Analog Scale (VAS) and quadriceps muscle strength was evaluated by using Handheld dynamometry. The functional status of the patients was evaluated by WOMAC (Western Ontario and McMaster Universities) index and health related quality of life was evaluated by Nottingham Health Profile (NHP).

Results: Significant improvement was found after treatment on pain, quadriceps muscle strength, functional status and quality of life in all groups ($p < 0.05$). When the groups compared by ANOVA it was found that outcome measures were not significantly different between Group-1, Group-2 and Group-3 ($p > 0.05$).

Conclusions: Supervised resistive exercises and whole body vibration exercises were more effective in strengthening lower extremity muscles when compared to home exercise training in patients with knee OA. However, the increase in muscle strength was not observed at long-term follow-up in both groups. Neither whole body vibration exercise training programme nor progressive resistive exercise and home-based exercise programme were found to be superior for the treatment of osteoarthritis. All types of exercise training programmes were beneficial for pain, functional status, quadriceps muscle strength and quality of life. Further studies with long-term follow-up are warranted.

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THU0746-HPR

RHEUMATOLOGY NURSE SPECIALISTS AND DMARD PRESCRIPTION - WHERE ARE WE NOW?

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Background: It is widely acknowledged that a multidisciplinary team approach is the best way to care for rheumatology patient group. The rheumatology nurse specialist (RNS) is an integral part of this multidisciplinary team. EULAR has published recommendations for their role in the management of chronic inflammatory arthritis (van Eijk-Hustings Y et al, 2012). The Department of Health also highlights the need for providing different models of care in a more cost effective way. It recognises that the nurse specialists' role is the bedrock of an effective care providing team and can contribute to answering the challenge of health provision in a financially difficult environment (Department of Health, 2008).

Objectives: We undertook a pilot survey to understand the present climate of rheumatology practitioners' prescribing of methotrexate in their practice.

Methods: "Learning Rheum" is a national initiative with an aim to establish a core curriculum for rheumatology nursing. Prior to its national meeting, the steering committee organised a focus group discussion of an ideal training structure to be able to successfully deliver DMARD education for patients. Methotrexate was accepted as index DMARD for the purpose of the exercise. A questionnaire