erature Analysis and Retrieval System Online, Excerpta Medica Database, Cumulative Index to Nursing and Allied Health literature, King's Fund, Allied and Alternative Medicine, Psychological Information Database, Applied Social Sciences Index and Abstracts, Ageline, Social Services Abstracts and British Nursing Index from earliest to November 2017. The PRISMA statement was used to guide the process. Observational, interventional and qualitative studies were included in the review and their methodological quality was assessed by two researchers using the Johanna Brigg Institute Checklists.

Results: Twenty-two studies, which were published in 2007 to 2016 (12 cross sectional; 5 cohort; and 5 qualitative) were included. Measurement of workplace limitation varied largely amongst the studies. High pain intensity, decreased physical functioning, physically demanding jobs, lack of opportunities to re-train, and lack of co-worker support were identified as important workplace factors associated with loss of productivity, and both presenteeism and absenteeism were predictive of job disruption and premature work loss. Function was identified as an important mediator of the impact of pain on work productivity, with physiotherapy and exercise classes that target pain and physical function[3] and maximising work place support[4] being recommended to prevent or reduce loss of work productivity. Qualitative studies emphasised the significance of physical environments, and social networks and support, recommending interventions to target individual needs to prevent future work loss.[5]

Conclusions: There is a wide range of scientific literature to suggest working people with OA are experiencing work instability due to pain, reduced physical functioning, activity limitation, and lack of co-worker and workplace support, placing them at increased risk of work disability. However, the measurement of workplace limitation varies greatly in this literature, making it hard to conduct empirical comparisons. Due to the temporal and biopsychosocial nature of work disability, there is a need for longitudinal studies to investigate the links between workplace factors and the onset and persistence of work instability in people with OA. Additionally, future qualitative studies should explore the role of personal and psychological factors, such as an individual's self-efficacy and coping skills, and the employer's perspectives on the provision of workplace support, to establish whether these potentially modifiable factors could influence work outcomes in people with OA.

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AB1424-HPR CORRELATES OF SLEEP IN RHEUMATOID ARTHRITIS: A SYSTEMATIC REVIEW

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Background: Over 50% of those with a diagnosis of Rheumatoid Arthritis (RA) experience poor sleep quality.[Scott 2010] This may result in altered health-related quality of life in addition to decreased daytime function.

Objectives: The aim of this systematic review is to identify and compile an account of the correlates of poor sleep in those with RA.

Methods: Two reviewers carried out literature searches of nine electronic databases. Literature was chosen based on the application of eligibility criteria, implementation of quality assessment and in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Moher *et al* 2009

Results: Fifteen full-text studies were included in the review – fourteen of cross-sectional design, and one randomised controlled trial (RCT). This included 3283 participants with a diagnosis of RA in accordance with the American College of Rheumatology criteria. The outcome measures included in the literature were largely heterogeneous in nature and therefore a meta-analysis was deemed to be unsuitable.

Conclusions: There is evidence within the literature to suggest that interactions between pain, fatigue, depression and functional ability play a role in sleep quality in those with RA. However, longitudinal data is required in order to determine the directionality of these relationships. The most prominent correlate of poor sleep is pain, with twelve studies identifying a positive association between the two variables. Conflicting evidence exsistswith regard to the association between sleep quality and disease activity, RA medications and patient demographics.

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HPR Interventions (educational, physical, social and psychological)

AB1425-HPR THE EFFECTS OF AEROBIC EXERCISE TRAINING ON PAIN AND DISABILITY FROM OSTEOARTHRITIS OF THE KNEE IN POSTMENOPAUSAL WOMEN

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Background: The prevalence, incidence and severity of osteoarthritis (OA) increases in women after menopause. It was indicated that, loss of oestrogen at menopause period was related to the increase in the risk of OA development. It was well documented that aerobic exercise training has positive effects on knee osteoarthritis symptoms and menopausal symptoms however we did not found study on the effects of aerobic training in postmenopausal women with knee osteoarthritis.

Objectives: Objective of this study was to evaluate the effects of aerobic exercise training on pain and disability in postmenopausal women with knee osteoarthritis

Methods: The study was approved by the Kirikkale University Ethic Committee. 50 voluntary postmenopausal women aged 48–78 years, with stage 2–3 knee OA according to the Lawrence classification were recruited to the study. The clinical information (age, menopause age, duration of OA, etc.) of the patients were questioned.

The cases were randomly divided into two groups as control which was performed combine physiotherapy and treatment group. Combine physiotherapy lasted three weeks and included hot pack, short wave diathermy, transcutaneal electrical nerve stimulation (TENS) and home exercises. After completed treatment, physiotherapist asked the patients to perform home exercises two times every day in three weeks period.

In the treatment group, in addition to combine physiotherapy, walking training on the treadmill performed 5 days/week during 6 weeks. The training intensity was%50–70 maximal heart rate (220-age). 40 min total exercise duration, consisted of a five minute warm-up and cool-down, 30 min brisk walking.

Both groups were evaluated before and after 6 six weeks the treatment. Visual Analogue Scale (VAS) was used to the pain evaluation. Functional ability was assessed by Western Ontario and McMaster Osteoarthritis Index (WOMAC).

Statistical analyses were performed using SPSS version 16 software.

Results: It was not observed significant difference on age, body mass index, menopause age, menopause duration and VAS value, WOMAC scores (subscales of pain, stiffness and physical function) before the treatment. (p>0.05).

After the treatment, VAS value, WOMAC all subscales' scores were significantly different in favour of treatment group (p<0.05). It was found that, VAS value and WOMAC all subscales' scores improved in both groups after the treatment (p<0,05).

Subscales of WOMAC' scores and VAS value showed a significant increase that corresponds to a large effect (d>0.8) in the treatment group. In the control group, only VAS value showed a significant increase that corresponds to a large effect (d>0.8), other increases on WOMAC subscales that corresponds to small and moderate effects (d=0.38–0.58).

Conclusions: Aerobic exercise training which added to the combined physiotherapy may contribute to decrease of pain and disability in postmenopausal women with knee osteoarthritis.

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AB1426-HPR IMPLEMENTATION OF NURSE LED CLINIC IN RHEUMATOLOGY DEPARTMENT LJUBLJANA, SLOVENIA

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Background: Nurse-led clinics in Rheumatology Department in Ljubljana have been established in September 2011 after nurses finished education module. The main goal was to provide good care and improved monitoring of patients with rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis which are treated with biologics. In this way nurses started to contribute and shape new ways in helping patients to better manage their disease. With this new approach the nurses have applied some of the recommendations regarding the role of the nurse in treatment of patients with inflammatory rheumatic diseases.
Objectives: The aim of this study is to describe the organisation, purposes and activities of a nurse-led rheumatology clinics.
Methods: Nurse's intervention data was collected from January 2012 to December 2017. The data is allocated according to individual intervention which has been implemented. We used excel table to represent data.
Results: The patients have opportunity for telephone counselling with the dedicated nurse about issues with their anti-TNF therapies. Between January 2013 and May 2014 we collected data in which we recorded 101 calls from patients who were seeking information about biologics. We recorded how many patients had come to the nurse led-clinics. We sorted them in four groups; nurse led follow up clinics, education about self-administration of biologics or some other medicine, blood or skin tests and daily care unite (table 1).

Abstract AB1426HPR – Table 1. Number of patients after intervention

Intervention/ Year	2012	2013	2014	2015	2016	2017
Nurse led follow up	478	780	1009	1101	1303	1455
Education	74	117	153	130	141	156
Other intervention	265	316	374	395	448	476
Daily care unit	309	390	446	501	570	664

Conclusions: The number of interventions has increased and show importance of nurses in patient management. This is most evident in the area of patient education and monitoring.
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AB1427-HPR THE ROLE OF PARENTS' AWARENESS IN PHYSICAL ACTIVITY IN CHILDREN WITH JUVENILE IDIOPATHIC ARTHRITIS

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Background: Whilst Juvenile Idiopathic Arthritis (JIA) is one of the most common chronic diseases amongst children, the impact of physical therapy on affected children's life-quality and the importance of an appropriate and regular physical activity get less attention than they ought to. In addition, there are no such studies about the role of parents' awareness in connexion with the regular physical activity for children with JIA available yet.
Objectives: The purpose of the survey was to evaluate the awareness of parents in connexion with the Juvenile Idiopathic Arthritis' diagnose, its treatment options, the importance of regular physical activity and how it affects children's life-quality. Everyday experiences say that children with JIA take part in less physical activities than their healthy mates do. Our aim was to detect how important regular physical activity is for parents.
Methods: This is a descriptive analysis of our self-compiled questionnaire which has 41 questions. It is being filled in both online and in paper forms since the February of 2017 in the National Institute of Rheumatology and Physiotherapy on the Department of Clinical Immunology, Adults' and Children's Rheumatology. Participants of the study are parents whose child has the diagnose of Juvenile Idiopathic Arthritis and ages between 2–18. Parents whose child has not differentiated diagnose or is under 2 years are excluded.
Results: 48 answers met the criteria, 6 answer sheets were excluded. In case the children's condition get worse, 20,8% of parents marked wrong parental measures. All parents acknowledge the importance of physical activity, but only 63% of children do regular physiotherapy at home. Parents could not choose from or rank the appropriate and useful ways of physical activities. Beside the medical team (doctor, physiotherapist, nurse) parents get information from media and internet. They would like to get further information personally in words, in written forms or pamphlets. Parents of children with JIA miss psychic support, alternative treatment options and customised, complex information from the general treatment.
Conclusions: The findings of this study support the fact that parents of children with Juvenile Idiopathic Arthritis are well informed about the JIA's inflammatory nature and its symptoms, but they have few and wrong information in connexion with regular physical activity. They have a lack of knowledge about the different kinds of physical activities and sports' effects on the disease, due to which they choose ergonomically wrong kinds of activities in schools or pre-schools. Based on our results, we would like to develop a complex educational program including physical therapy as well.

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AB1428-HPR TWO-YEAR FOLLOW-UP OF THE THERAPEUTIC EXERCISE PROGRAM FOR PATIENTS WITH ROTATOR CUFF TENDINOPATHY: A SINGLE GROUP STUDY TO INVESTIGATE THE EFFECTS ON PAIN AND DISABILITY

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Background: Although exercise training is accepted as one of the important and active treatment approach for the shoulder-related musculoskeletal problems,[1] the scientific rationale and long-term results for the inclusion of specific progressive exercises are less clear.
Objectives: This longitudinal, single group study aims to investigate the effects of a therapeutic exercise program on pain and disability in patients with the rotator cuff tendinopathy.
Methods: Twenty-eight participants with chronic non-traumatic unilateral shoulder pain diagnosed with rotator cuff tendinopathy (28.6±5.4 years old, symptoms duration 3.2±1.5 months) were included. The appropriate patient education and criteria-based, supervised exercise program including scapular and rotator cuff neuromuscular control exercises were performed. We evaluated self-reported shoulder pain and disability status by using Shoulder Pain and Disability Index (SPADI)[2] at baseline, after 6 week, 12 week training, at one-year-follow-up, and two-year-follow-up. Repeated measures ANOVA used for statistical analysis.
Results: Comparisons showed that there was significantly less SPADI-pain and SPADI-disability score reported starting from six-week after baseline and at two-year-follow-up ($p<0.05$).
Conclusions: The findings of the study showed that pain and disability gains can be achieved with 6 week progressive exercise training for participants with rotator cuff tendinopathy. Therefore, the progressive exercise training should be recommended to apply starting from early shoulder rehabilitation program.