

with RA and a SMI experienced significantly greater levels of pain ($p=0.04$), functional disability ($p=0.01$), along with poorer disease activity ($p=0.03$) and poorer quality of life ($p<0.03$) than those with RA, but without SMI. There was however, no significant difference in the receipt of DMARDs or NSAIDs between the two groups ($p>0.12$).

Conclusion: Prevalence rates of SMI are no greater in RA than the general population. Those with RA and a SMI do however experience significantly poorer clinical outcomes than people with RA but without SMI despite being in receipt of similar medications. Further research is needed to explore why these health inequalities exist and how best to ensure more positive outcomes for this vulnerable population.

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SAT0704-HPR PREVALENCE OF RHEUMATIC PATHOLOGY IN CHILDREN IN THE CENTRAL FEDERAL DISTRICT OF THE RUSSIAN FEDERATION, STRUCTURE OF MORBIDITY AND THERAPY

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Background: Analysis of the incidence of rheumatic diseases in children can help to evaluate the real needs in treatment provision and improve medical service.

Objectives: To analyse the prevalence, structure of morbidity, and therapy of rheumatic pathology in children in the Central Federal District of the Russian Federation.

Methods: Statistical, sociological methods and content analysis were used. The study included generalised information on 3940 patients aged 1-17 years with various rheumatic diseases living in the 13 regions of the Central Federal District of the Russian Federation. The data is provided by the main paediatric rheumatologists of the regions.

Results: 5,999,124 children aged 0 to 17 years live on the territory of 13 regions of central Russia. In these regions, 3,940 patients with rheumatic diseases are observed. Our data allowed us to calculate the prevalence of rheumatic diseases per 100,000 children from 0 to 17 years. The prevalence of juvenile idiopathic arthritis (JIA) is 62.2, systemic lupus erythematosus - 0.7, juvenile dermatomyositis - 0.7, systemic scleroderma - 0.6. The overall incidence of the rheumatic disease is 65.7 per 100,000 children from 0 to 17 years. In the structure of rheumatic pathology, 94.7% are accounted for JIA, 1.1% for systemic lupus erythematosus, 1.0% for juvenile dermatomyositis, 0.9% for systemic scleroderma, 2.2% for other rheumatic diseases. 67.3% of patients receive disease-modifying anti-rheumatic drugs (DMARDs) ($n = 2650$), of which 80.1% receive methotrexate ($n = 2122$), 13.5% - sulfasalazine, 0.3% - leflunomide, 0.7% - cyclosporine A, 3.8% - corticosteroids, 0.7% - mycophenolate mofetil, 0.5% - hydroxychloroquine.

Biological therapy is received by 27.5% of patients suffering from JIA ($n = 1026$). The data differs depending on the region. In the Bryansk

region, the proportion of patients receive biological therapy is 45.8%, in the Yaroslavl region - 41.2%, in Moscow - 40.7%. More rarely, the biological therapy is initiated in Kostroma - 11.9% and Oryol - 15.3% areas. The structure of biological therapy is dominated by TNF-alpha inhibitors - 71.3%. 41.6% of all children undergoing biologic therapy were prescribed etanercept, 27.2% - adalimumab. 18.1% of patients receive tocilizumab, 7.2% - abatacept, 1% - infliximab, 2.5% - canakinumab, 1.5% of patients receive golimumab.

Conclusion:

1. The overall incidence rate of rheumatic diseases in central Russian regions is 65.7 per 100,000 children from 0 to 17 years.
2. The prevalence of juvenile idiopathic arthritis is 62.2 per 100,000 children from 0 to 17 years old.
3. 67.3% of patients receive DMARDs. In 80.1% of cases, the drug of choice is methotrexate.
4. 27.5% of patients suffering from JIA receive biological therapy; data vary by region (45.8% - 11.9%). The structure of biological therapy is dominated by TNF-alpha inhibitors - 71.3%.
5. At the level of various regions, countries, it is necessary to conduct research aimed at studying the causes influencing the overall incidence, the detectability of rheumatic diseases, and the structure of therapy.

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HPR Measuring health (development and measurement properties of PROs, tests, devices)___

SAT0705-HPR PATIENTS' EXPERIENCES OF REASONS TO BEING PHYSICALLY ACTIVE IN EARLY RHEUMATOID ARTHRITIS – A MIXED METHODS STUDY

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Background: The importance of physical activity in rheumatoid arthritis (RA) is well known and patients are informed about the importance of being physically active. Despite this knowledge there is a lack of compliance to this advice. Studies comparing physical activity in different groups of patients with RA and reasons influencing physical activity are needed.

Objectives: The objectives were to compare physical activity (PA) in workers, retired and patients with sick-leave with early RA and further to explore reasons to being physically active in these patients.

Methods: A total of 66 patients with early RA were included in the study. A sequential explanatory mixed methods design was used. The groups were compared with clinical data as: disease activity (DAS28); pain (VAS 0-100, best to worst); health-related quality of life (EQ5D, -0.594-1 worse to best) and a physical function (HAQ, 0-3 best to worst). ESR and CRP. Patients were dichotomized as being active on recommended levels of PA (MVParec; physically active on a moderate level ≥ 150 min/week (MPA) or on an intense level ≥ 75 min/week (VPA)) or not (sedentary). The patients were grouped on self-reported working ability; workers, patients with sick-leave and retired patients.

Qualitative data was collected by a questionnaire with open-ended questions about reasons influencing PA. The qualitative data was analysed with a manifest qualitative content analysis to gain a greater understanding of patients' experiences of PA in early RA.

Results: There were no significant differences between the groups in disease activity, physical function, swollen joints, health-related quality of life

or inflammatory parameters (ESR, CRP). Patients on sick-leave had more tender joints median (min-max) 9 (2-18) vs. 4 (0-20) and 3 (0-10), $p=0.013$. Workers reported higher intensity of pain, though not significant. Retired patients fulfilled MVPA criteria to a higher rate (86%) than workers (42%) or patients with sick-leave (40%), $p=0.010$.

The qualitative content analysis resulted in three categories. Reasons to being physically active in patients with early RA were; limitations (pain, physical function, stiffness, limited strength and fatigue), awareness as motivation (fear of movement and health benefits) and external environment (weather, transports to activity, economy and time, especially for workers).

Conclusion: Knowledge of reasons to being physically active in patients with RA is important to facilitate and support the patients. Joint pain seems to be an issue for patients with sick-leave. This could be associated to fear of movement and in this aspect these patients need to be supported. Time could be a limiting issue for working patients, which need to be highlighted and solved for these patients.

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SAT0706-HPR THE RELATIONSHIP BETWEEN SUBJECTIVE AND OBJECTIVE METHODS FOR MEASURING PHYSICAL ACTIVITY STATUS OF AXIAL SPONDYLOARTHRITIS PATIENTS: QUESTIONNAIRE VERSUS ACCELEROMETER

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Background: Physical activity is getting more attention for the appropriate management of both disease itself and co-morbid conditions in patients with axial spondyloarthritis (axSpA). Many different tools are available for determining physical activity status. Although subjective tools such as questionnaires are quick and easy for gathering data, objective tools such as accelerometers might provide more accurate information.

Objectives: To investigate the relationship between a subjective physical activity questionnaire (International Physical Activity Questionnaire Short Form: IPAQ) and an accelerometer (Actigraph wGT3X-BT) for measuring physical activity status of axSpA patients.

Methods: Thirty-nine patients with axSpA (age 37.9±11.3 years, body mass index 26.9±5.3 kg/m², disease activity: 3.3±2.3 according to Bath Ankylosing Spondylitis Disease Activity Index, functional status: 2.9±2.8 according to Bath Ankylosing Spondylitis Functional Activity Index, 24 male) according to ASAS criteria were included to assess the subjective and objective physical activity status by using the Turkish version of IPAQ and an accelerometer (Actigraph wGT3X-BT), respectively. The accelerometer was worn by the patients on their waists at their first visit and it provides information about the light, moderate, vigorous physical activity times in minutes. On the seventh day when the accelerometer was removed, patients were asked to complete the IPAQ. The IPAQ inquires the physical activity performed previous week in minutes and categorizes into three sections as vigorous, moderate activity, and walking. The walking section in IPAQ was accepted as equal to light physical activity in Actigraph. The relationship between measurements was determined by using Spearman's Rank Correlation Coefficient.

Results: No significant correlations were determined between subjective and objective methods ($p>0.05$), except the time spent during moderate physical activity ($\rho: 0.457, p<0.05$). It was also observed that IPAQ were underestimating the physical activity times for all types of physical activity (Table 1).

Abstract Table 1. The correlations between objective and subjective physical activity measurements

Objective Measurement*	Subjective Measurement**	Spearman's Correlation	p
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Light Physical Activity (min)	2270.26±1016.70	331.03±552.75	-0.037	0.825
Moderate Physical Activity (min)	243.97±167.9	90.26±241.39	0.457	0.003
Vigorous Physical Activity (min)	7.23±18.61	248.72±848.93	0.184	0.914
Total Physical Activity (min)	2521.46±1094.40	670.00±1183.30	0.271	0.095

*: Actigraph wGT3X-BT, **: IPAQ: International Physical Activity Questionnaire Short Form, $p<0.05$.

Conclusion: According to our results, IPAQ short version may not be an appropriate tool for determining physical activity status in axSpA patients. It seems that we need disease specific tools in axSpA.

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SAT0707-HPR PATIENT AND CLINICIAN PERSPECTIVES USED FOR SURVEY DEVELOPMENT TO INVESTIGATE THE NATURE, EXTENT AND IMPACT OF FOOT PROBLEMS IN PEOPLE WITH PSORIATIC ARTHRITIS

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Background: Despite recognition that hallmark features of psoriatic arthritis (PsA), such as enthesitis, are predominant and persistent in the foot and ankle [1], limited research has focused on the foot. Few published studies have used RA-specific outcome measures unlikely to capture the dermatological impact in PsA and there has been little incorporation of the patient perspective [1]. The importance of patient and clinician involvement as a central component of research design has been identified in PsA [2, 3], and provides a basis for defining what should be measured to represent comprehensively the experience of people with PsA-related foot problems and important domains of impact.

Objectives: To develop a survey based on the views of people with PsA and clinicians on foot problems, their impact and the foot care needs.

Methods: Interviews of people with PsA-related foot problems and focus groups with clinicians on their understanding of the patient experience were undertaken in Sydney, Australia and Auckland, New Zealand. A representative sample from public and private sector, from lower and higher socioeconomic geographical areas, as well as clinicians with different professional backgrounds was sought. Based on the themes from the qualitative interviews, previous research [1, 3] and clinical experience, survey items were generated by the research team using a consensus based approach. The survey was pre-tested using a 4-stage method that comprised; cognitive de-briefing of people with PsA, expert review panels of subject and survey design experts, cultural sensitivity assessment and pilot testing. All focus groups and interviews were audio-record, transcribed verbatim and survey items were revised based on comments made.

Results: The final 60-item self-administered survey was developed based on feedback from each of the 4-stages, which related to wording, comprehension, timescales, content, repetition, number of survey items and overall survey design. Key survey domains included demographic (10%) and socioeconomic data (10%), global disease information (18%), foot and ankle characteristics (18%), and the impact of foot problems on daily