option for these conditions. For instance, in contrast to leisure-time physical activity, recent evidence has shown that occupational physical activity seems to be associated with more insomnia symptoms, and that this association is particularly evident among people who also report musculoskeletal pain. These latter findings therefore call attention to the domain-dependent association between physical activity and health related outcomes, including musculoskeletal pain and insomnia. As methods to deal with physical activity have improved the recent years, the intention of this presentation is to provide an updated review of the interplay between domains of physical activity, insomnia and chronic musculoskeletal pain

Learning objectives:

- To understand the bidirectional relationship between insomnia and musculoskeletal pain
- To understand the interplay between domains of physical activity, chronic musculoskeletal pain and insomnia

REFERENCES:

- [1] Uhlig BL, Sand T, Nilsen TI, Mork PJ, Hagen K. Insomnia and risk of chronic musculoskeletal complaints: longitudinal data from the HUNT study, Norway. *BMC Musculoskeletal Disorders*. 2018;19 (1):128.
- [2] Skarpsno ES, Nilsen TIL, Sand T, Hagen K, Mork PJ. Do physical activity and body mass index modify the association between chronic musculoskeletal pain and insomnia? Longitudinal data from the HUNT study, Norway. *Journal of Sleep Research*. 2018;27(1):32-39.
- [3] Youngstedt S, Kline C. Epidemiology of exercise and sleep. *Sleep and Biological Rhythms*. 2006;4(3):215-221.
- [4] Ambrose KR, Golightly YM. Physical exercise as non-pharmacological treatment of chronic pain: Why and when. *Best Practice & Research Clinical Rheumatology*. 2015; 29(1):120-130.
- [5] Chennaoui M, Arnal PJ, Sauvet F, Leger D. Sleep and exercise: a reciprocal issue? *Sleep Medicine Reviews*. 2015;20:59-72.
- [6] Skarpsno ES, Mork PJ, Nilsen TIL, Jorgensen MB, Holtermann A. Objectively measured occupational and leisure-time physical activity: cross-sectional associations with sleep problems. *Scandinavian Journal of Work Environment & Health*. 2018;44(2):202-211.
- [7] Skarpsno ES, Mork PJ, Nilsen TIL, Jorgensen MB, Holtermann A. The joint association of musculoskeletal pain and domains of physical activity with sleep problems: cross-sectional data from the DPhacto study, Denmark. *International Archives of Occupational and Environmental Health*. 2018.

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SP0208 UNDERSTANDING THE IMPACT OF PAIN, SLEEP AND FATIGUE ON PATIENTS LIVES

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Pain is well known to be a common dominant symptom in people with rheumatic musculoskeletal diseases (RMDs). Perhaps less well acknowledged by healthcare professionals are fatigue and sleep disturbances in these patients. Individually these symptoms are problematic but when combined their effect and impact on patients' lives is greatly amplified; often leaving people in a vicious cycle whereby being in pain results in poor sleep leading to fatigue the next day, which lowers patients' pain tolerance resulting in a poorer night's sleep, more fatigue and increased pain.

Pain, fatigue and sleep disturbance greatly reduce quality of life for people with RMDs. Patients have to adapt their daily and leisure activities, or give them up altogether with negative psychological consequences such as anxiety and depression. Patients can end up feeling helpless and sometimes suicidal. Relationships with partners and friends are often altered affecting their sexual and social lives. Major life decisions, such as having a baby, can be put on hold or shelved.

People with RMDs may also have to reduce their working hours or stop working, which has financial repercussions for them and their families. This can exacerbate stress, anxiety and depression leading to poorer health outcomes. It is therefore of great importance that healthcare professionals understand the extent to which pain, fatigue and sleep difficulties impact on patients' lives so that priority can be given to addressing these distressing symptoms as part of any management strategy.

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SATURDAY, 15 JUNE 2019

12:00:00 – 13:30:00

EULAR Projects in musculoskeletal imaging

SP0209 EULAR RECOMMENDATIONS FOR REPORTING IN MSK ULTRASOUND STUDIES

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Background: Ultrasound is now considered as an established imaging modality for the management of rheumatic and musculoskeletal diseases (RMDs). However, the reporting of ultrasound information in clinical studies is often inadequate and/or incomplete which hampers the assessment of the generalizability and applicability of their results.

Objectives: to develop European League Against Rheumatism (EULAR) recommendations for the reporting of ultrasound studies in RMDs with the ultimate goal to produce a "reporting checklist" containing a minimal list of items that should be checked when a study using ultrasound is submitted for publication.

Methods: Following the standardised operating procedures for EULAR-endorsed recommendations, a task force has been created, including ultrasound experts, methodologists, patients and health professionals. After a first face-to-face meeting, preliminary recommendations were formulated together with research questions to drive the literature reviews. Based on the results of the literature reviews and on the results of several DELPHI rounds with the participation of external experts, these preliminary recommendations were then refined during a second face-to-face meeting in November 2018.

Results: The current checklist comprises 21 items (19 mandatory and two optional) divided into 13 sections. For helping the interpretation of some specific terms, a glossary has also been created, including 12 definitions. The checklist is currently evaluated by external experts to assess its comprehensiveness. Finally, all the members of the task force will be asked to give their level of agreement with each of the items.

Conclusion: this checklist will help to improve quality and completeness in reporting of ultrasound studies in RMDs.

Disclosure of Interests: None declared

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SP0210 IMPLEMENTATION AND ROLE OF MODERN MUSCULOSKELETAL IMAGING (US, MRI AND PET) IN RHEUMATOLOGICAL PRACTICE IN EUROPE – A EULAR SURVEY

Peter Mandl. Medical University of Vienna, Rheumatology, Vienna, Austria

Objectives: To document the current training, implementation and role of modern musculoskeletal imaging techniques, i.e. ultrasound (US), magnetic resonance imaging (MRI), computed tomography (CT), and positron emission tomography (PET) among rheumatologists in the member countries of the European League Against Rheumatism (EULAR).

Methods: English-language questionnaires for each imaging modality developed by aEULAR Taskforce were sent out to national and international scientific societies as well as imaging experts in the given modalities involved in research and/or training. The surveys were distributed via an online survey tool (SurveyMonkey). Simple descriptive and summary statistics were calculated from the responses.

Results: More than 90% of US experts reported the availability of an US unit in their department. Suspicion of rheumatoid arthritis and spondyloarthritis were the main clinical indications for performing US for diagnostic purposes. Suspicion of sacroiliitis and degenerative spine disease were the most common indications to perform MRI or CT for diagnostic purposes, while PET was mainly performed to diagnose large vessel vasculitis and to investigate fever of unknown origin. The reported percentage of rheumatologists performing US was highly variable, ranging from more than 80% in 6% of countries to less than 10% in 15% of countries. The majority of experts (77%) reported that their national rheumatology societies organize US courses, while courses in MRI or CT organized by the national rheumatology societies were less commonly reported (29% and 8% respectively).

Conclusions: Rheumatologists in Europe utilise modern imaging techniques, however access to the techniques and training offered is varied.

Disclosure of Interests: None declared

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