Conclusion: This is the first study to examine mediation and highlights the importance of potentially modifiable targets for HPRs to reduce mortality in older adults with osteoarthritis. Encouraging people to maintain levels of physical activity at a population level and targeting a reduction in physical limitation in clinical practice to allow this, is important.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.5862

OP0156-HPR THE FEASIBILITY AND EFFECTIVENESS OF TELEMEDICINE FOR KNEE OSTEOARTHRITIS IN DISEASE MANAGEMENT: A RANDOMISED CONTROL TRIAL

Zhengping Huang¹, Xiaoyan Zhong², Zhimin Xie², Li. Tianwang¹. ¹Guangdong Second Provincial General Hospital, Guangzhou, China; ²Guangdong Online Hospital, Guangzhou, China

Background: Osteoarthritis (OA) is a serious health concern worldwide, and patients with OA are in urgent need of proper long-term disease management to prevent disability and improve the quality of life. Research has started to investigate the feasibility and effectiveness of telemedicine in providing disease management for patients with chronic diseases. Guangdong Online Hospital (GOH) is the first officially recognized web-based hospital that widely provides telemedicine services in southern China.

Objectives: This study aimed to establish the feasibility and effectiveness of GOH in providing long-term disease management for patients with knee OA via a 6-month, randomised control trial (RCT).

Methods: 40 patients with knee OA were randomly assigned to receive conventional therapy (CT) in the clinic or conventional therapy plus a brief GOH-based intervention (CT-GOHT). GOH-based intervention included educational lectures, medical suggestions and psychotherapy. The primary outcome was the drop-out rates and the secondary outcomes included the mean change of the self-reported total score of the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), the Multidimensional Fatigue Inventory (MFI), the Hospital Anxiety and Depression Scale (HADS) and the Pittsburgh Sleep Quality Index (PSQI) from baseline to endpoint.

Figure 1. Flow chat of trial participation

Figure 2. A telemedicine intervention to patients with knee OA

Results: The baseline characteristics were comparable between the two groups. 3 patients in CT group and 1 patient in CT-GOHT group lost to follow-up during the study ($P = 0.598$). A statistically significant difference was observed in the mean change of WOMAC recommended index of joint pain (8.82 ± 5.02 vs. 13.90 ± 7.63 , $P = 0.026$), morning stiffness (3.12 ± 1.50 vs. 4.42 ± 2.06 , $P = 0.039$), functional limitation (27.65 ± 9.91 vs. 38.84 ± 17.28 , $P = 0.025$), HADS-Anxiety (3.24 ± 2.41 vs. 5.32 ± 3.23 , $P = 0.037$), and PSQI global score (2.35 ± 1.54 vs. 4.21 ± 3.34 , $P = 0.043$) from baseline to endpoint when comparing the CT group to the CT-GOHT group. In addition, Guangdong Online Hospital was widely accepted by the including OA patients for their disease management.

Conclusion: Delivering a telemedicine intervention to patients with knee OA via GOH is a feasible and potentially effective method in long-term disease management, especially for patients living in remote areas. The results provide preliminary experiences and guidance for an upcoming full-scale RCT in disease management via telemedicine.

Trial registration: ChiCTR1800014465.

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Table 1. Baseline characteristics of the two study groups

Variable	CT group (n = 20)	CT-GOHT group (n = 20)
Age	72.25 ± 8.84	67.25 ± 10.97
Female, n	15	15
Education, n	12	14
Primary school	8	6
High school		
Han Chinese, n	20	20
Income, n	8	5
<¥2000	10	13
¥2000 - ¥5000	2	2
>¥5000		
BMI, kg/m ²	25.85 ± 3.87	26.29 ± 2.96
Distance to hospital, kilometre	105.83 ± 100.35	111.33 ± 92.54
Kellgren-Lawrence grade, n	8	6
Grade I	10	13
Grade II	2	1
Grade III		
WOMAC pain, 0-10	18.90 ± 10.08	21.00 ± 8.38
WOMAC morning stiffness, 0-10	8.45 ± 4.89	9.25 ± 4.68
WOMAC function, 0-10	58.05 ± 20.55	63.30 ± 25.31
MIF	43.55 ± 19.77	45.70 ± 20.43
HADS-A	8.90 ± 5.55	8.30 ± 4.64
HADS-D	7.10 ± 5.28	6.85 ± 4.55
PSQI global score	7.35 ± 4.56	7.70 ± 5.13

Table 2. Mean change of outcome measures from baseline to endpoint

Results	CT group (n = 17),	CT-GOHT group, (n = 19)	P value
WOMAC pain	8.82 ± 5.02	13.90 ± 7.63	0.026
WOMAC morning stiffness	3.12 ± 1.50	4.42 ± 2.06	0.039
WOMAC function	27.65 ± 9.91	38.84 ± 17.28	0.025
MIF	17.53 ± 7.73	20.95 ± 8.75	0.225
HADS-A	3.24 ± 2.41	5.32 ± 3.23	0.037
HADS-D	2.12 ± 2.06	2.36 ± 2.01	0.714
PSQI global score	2.35 ± 1.54	4.21 ± 3.34	0.043

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.6474

OP0157-HPR EUROPEAN PATIENT VOICE IN GOUT SURVEY – SUBJECTIVE SATISFACTION IN GOUT PATIENTS VERSUS OBJECTIVE SUBOPTIMAL GOUT CARE

Marc De Meulemeester¹, Tim Jansen², Gudula Petersen³, Fernando Perez-Ruiz⁴.

¹MEDIF sprl, Gozée, Belgium; ²VieCuri Medisch Centrum, Venlo, Netherlands;

³Grünenthal GmbH, Aachen, Germany; ⁴Hospital de Cruces, Barakaldo, Spain

Background: Gout is the most common form of inflammatory arthritis with an increasing prevalence and incidence in many countries (1). Few information is available about current management of gout and satisfaction of patients living with gout.

Objectives: To evaluate diagnosis and treatment of gout from patient perspective to improve treatment outcomes for gout patients in Europe.

Methods: A 15 minute online survey with gout patients from 14 European countries (Austria, Belgium, France, Denmark, Germany, Italy, Ireland, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland) was conducted in 2018. The design and content of the survey has been developed together with several patient and clinical experts

Results: 1,100 gout patients (78% males, mean age 55 years) with a mean number of 2.9 flares in the past 12 months completed the survey. 77% percentage of patients are suffering from co-morbidities (hypertension 52%, dyslipidemia 41%, overweight 40%, type 2 diabetes 23%, long-term illness of kidney/renal insufficiency 17%). It was reported that mainly general practitioners are involved in the diagnosis of the disease (73%), discussion of gout (68%) and treatment of last gout flare (59%), whereas rheumatologists are less involved in diagnosis (8%), discussion (15%) and treatment (11%) of last gout flare. 22% of patients were not diagnosed until they have had 4 or more flares. 71% of patients had flares in the past 12 months (thereof 33% ≥3 flares) which seemed to be particularly an issue for younger patients. 58% of patients receive uric acid lowering therapies, 43% pain killers, 25% colchicine, 13% non-medical pain relief and 12% corticosteroids. 59% of patients do not have regular follow up appointments for their gout and 53%

are monitored for serum uric acid less than twice per year. But 79% of patients claim to be satisfied with their current treatment and do not expect better management of their disease.

Conclusion: The results of the survey demonstrate that gout patients in Europe are diagnosed late, their disease is not well controlled and not regularly monitored. It seems that their doctors are not aware of the pain and impact of gout on their patients' quality of life as patients are not telling them about it. Nevertheless, most of the patients feel their current treatment is the best they can get. There is a clear need to educate patients and their doctors about adequate management of gout.

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Acknowledgement: The survey was conducted by Hall & Partners and funded by Grünenthal.

Disclosure of Interests: Marc De Meulemeester Consultant for: Grünenthal, Speakers bureau: Novartis, Astra Zeneca, Tim Jansen Grant/research support from: Olatec, Consultant for: Abbvie, Celgene, Menarini, Novartis, Speakers bureau: Grünenthal, Gudula Petersen Employee of: Grünenthal, Fernando Perez-Ruiz Grant/research support from: Cruces Rheumatology Association, Consultant for: Grünenthal, Menarini, Horizon, Speakers bureau: Menarini, Grünenthal; Spanish foundation for rheumatology

DOI: 10.1136/annrheumdis-2019-eular.4873

OP0158-HPR THE BARRIERS AND FACILITATORS TO REQUESTING AND RECEIVING PSYCHOLOGICAL SUPPORT FOR PEOPLE WITH RHEUMATOID ARTHRITIS AND ADULTS WITH JUVENILE IDIOPATHIC ARTHRITIS

Hayley McBain¹, Matthew Bezzant², Ailsa Bosworth². ¹City, University of London, London, United Kingdom; ²National Rheumatoid Arthritis Society (NRAS), Maidenhead, United Kingdom

Background: UK guidelines¹⁻³ state that psychological interventions should be offered to people with rheumatoid arthritis (RA) to help them adjust. Although rheumatology units recognise that providing psychological support is part of their role, 3 in 4 rate their overall provision as inadequate.⁴ The reasons being a lack of time, a lack of trained clinicians and available training and the costs of delivering this type of service. However, little is known about the barriers to requesting psychological support from the patient perspective.

Objectives: To establish the full range of barriers and facilitators to requesting psychological support.

Methods: The 2018 National Rheumatoid Arthritis Society (NRAS) 'Emotional Health and Well-being Matters' survey was designed by patients and researchers. This included a questionnaire designed to capture the barriers to accessing psychological support, using an established theoretical framework.⁵ The questionnaire consisted of 41 items covering a range of barriers, with responses on a 5-point Likert scale. Participants were recruited by NRAS via their social media platforms, membership and non-membership lists through direct mail and in newsletters and the NRAS HealthUnlocked forum. The survey was open from May-July 2018. Recruitment was those diagnosed with RA and AJIA, aged 18 years and over and living in the UK.

Results: A final sample of 1650 participants took part in the survey, 97% of the sample had RA and 3% AJIA. 1 in 5 people with RA and 1 in 10 with AJIA were unlikely or extremely unlikely to seek psychological or emotional support in the future, even if they felt they needed it. The most frequently reported barriers to requesting psychological support from their healthcare team were (i) lack of optimism about their future with RA or AJIA (ii) not knowing what support they can access (iii) finding it difficult to talk about their emotions and asking for help (iv) believing healthcare professionals lack the time and ability to help them (v) believing that discussing emotions and providing psychological support is not on their healthcare team's agenda, evidenced by a focus on physical rather than psychological health in consultations and (vi) never or rarely being asked about their emotions.

Conclusion: Exploring the potential barriers to requesting psychological support has given us unique insight into the complex journey of receiving psychological support. To overcome the most influential barriers steps need to be taken to encourage hope for the future, empower patients with RA and AJIA to talk about their emotions and instigate these discussions with their healthcare team, as well as providing more information and guidance about what support they can access and from where.

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.3686

OP0159 THE EFFECT OF HIGH-INTENSITY RESISTANCE TRAINING AND VITAMIN D SUPPLEMENTATION ON MUSCLE STRENGTH IN PATIENTS WITH KNEE OSTEOARTHRITIS: A RANDOMIZED CONTROLLED TRIAL

Arian de Zwart¹, Joost Dekker², Leo D. Roorda¹, Martin van der Esch¹, Paul Lips², Natasja van Schoor², Annetie Heijboer², Frankien Turkstra¹, Martijn Gerritsen¹, Arja Häkkinen³, Kim Bennell⁴, Martijn Steultjens⁵, Willem Lems², Marika van der Leeden². ¹Amsterdam Rehabilitation Research Center | Reade, Amsterdam, Netherlands; ²VU University Medical Center, Amsterdam, Netherlands; ³University of Jyväskylä, Jyväskylä, Finland; ⁴University of Melbourne, Melbourne, Australia; ⁵Glasgow Caledonian University, Glasgow, United Kingdom

Background: Exercise therapy is the cornerstone of knee osteoarthritis (OA) management. In particular muscle strengthening exercise, targeting the characteristic loss of muscle strength present in knee OA, is a key factor for the beneficial effects reported for exercise therapy. The optimal training intensity for resistance training in patients with knee OA, however, is not known to date. Besides resistance training, vitamin D supplementation in patients with vitamin deficiency may optimize muscle strength.

Objectives: To assess (i) whether high-intensity resistance training leads to greater improvements in muscle strength compared to moderate-intensity resistance training in patients with knee OA; and (ii) whether vitamin D supplementation in combination with strength training leads to greater improvements in muscle strength compared to placebo in combination with strength training in patients with knee OA and vitamin D deficiency (25 (OH)D level > 15 nmol/L and < 50 nmol/L (in winter) or < 70 nmol/L (in summer)).

Methods: In a randomized controlled trial, 177 patients with a clinical diagnosis of knee OA were included. All patients were randomly allocated to a high-intensity (70-80% of the Repetition Maximum (1RM)) or a moderate-intensity (40-50% of the 1RM) resistance training program of 12 weeks. Both groups were supervised by a physical therapist twice a week and performed home exercises once a week. In addition, 50 out of 177 patients had vitamin D deficiency and received supplementation of vitamin D (1200 IU vitamin D3 per day) or placebo in the 12 weeks prior to and during the resistance training program. The primary outcome measure was isokinetic (60 °/s) upper leg muscle strength (Nm/kg). In addition, the estimated 1 RM for leg press, leg curl and hip abduction were used as measures for muscle strength. Other outcome measures included severity of knee pain (NRS), self-reported and performance based activity limitations (WOMAC physical functioning (WOMAC), Get-up-and-go-test (GUG)). Measurements were performed by a blinded assessor prior to the exercise program (T0), directly after the program (T12) and at 6 months follow-up (T36). Additionally, for patients with vitamin D deficiency, measurements were also taken prior to vitamin supplementation or placebo (T-12).

Results: Both the high-intensity group and moderate-intensity group improved in upper leg muscle strength over time. No significant differences between groups were found for isokinetic upper leg muscle strength ($p = 0.646$) (see figure 1). However, when measured by the estimated 1 RM, significant differences were found between groups in favor of the high-intensity group ($p = 0.001$) (see figure 1). No between-group differences were found on pain ($p = 0.885$), or on self-reported and performance-based activity limitations (WOMAC $p = 0.968$; GUG $p = 0.800$), although both groups improved (see figure 1). An unexpected finding was that, in the (small sample of) patients with vitamin D deficiency, the placebo group showed significant greater isokinetic upper leg muscle strength over time compared to the vitamin D group ($p = 0.001$).

Conclusion: No differences between groups were found for isokinetic upper leg muscle strength. With the estimated 1 RM as a measure of muscle strength, high-