

Work Participation: Arthritis and Rheumatological Conditions

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Participation in the Workplace





Participation Restriction in the Workplace



Learning Objectives

- Discuss employment outcomes
- Discuss the prevalence of work disability
- Discuss best practice approaches for enhancing employment outcomes among adults with arthritis
- Discuss important gaps/next steps in the field



Definitions: Work Disability

- **Work loss:** “Premature work cessation due to a health condition”

- **Work productivity:**
 - **Absenteeism:** “Time missed from work due to health reasons”
 - **Presenteeism:** “Time of impaired performance while at work due to health reasons resulting in productivity loss”



Measurement

- Work Loss

- Absenteeism

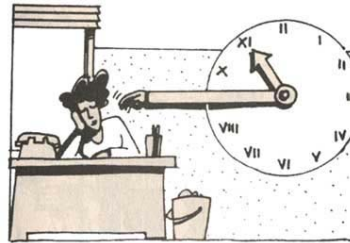
- Presenteeism





Measurement: Work disability

- Work Loss/Employment status:
 - Full time employment
 - Part time employment
 - Unemployment, long term disability leave



Measurement: Work disability

- Absenteeism:
 - Time lost from work
 - Short term leave





Measurement: Work Disability

- Presenteeism
 - Numerous work outcome measures referred to in rheumatology (over 21)
 - No gold standard to date on presenteeism despite strong interest in the field



Measurement: Work Disability

- Presenteeism: OMERACT efforts (www.omeract.org)
 - Work Limitations Questionnaire (WLQ)
 - Workplace Activity Limitations Scale (WALS)
 - Work Instability Scale for Rheumatoid Arthritis (RA-WIS)
 - Work Productivity Survey (WPS-RA)
 - Work Productivity and Activity Impairment Questionnaire (WPAI)

- Tang et al. 2011. Arthritis Care & Research ; 63(S11):S337-S349.
- Beaton et al. 2009. Journal of Rheumatology; 36(9):2100-2109



Impact of arthritis on work participation



Impact: Prevalence of Premature Work Cessation

- 23%-45% of people with arthritis are unemployed within 10 years of diagnosis
 - Rheumatoid arthritis (Sullivan et al. 2010)
 - Psoriatic arthritis (Tillett et al. 2012)
 - Ankylosing spondylitis (Backland et al. 2011, Ariza-Ariza et al. 2009)
 - Lupus (AIDhanhani et al. 2009)



Impact: Productivity

- 2001-2002 National Health Interview Survey (NHIS) (Theis et al. 2007)
 - 5% of the US employment aged population reported limitations in work due to arthritis
 - 31%--8.3 million people—with arthritis reported a work limitation related, at least in part, to a musculoskeletal condition



Impact: Productivity

- Financial impact on the individual and the society





**Impact:
Work loss and productivity loss
are substantial**



The Rheumatological Population

- 50% of people with arthritis are employment age
- Disease onset common in working age
 - Onset in older working age particularly problematic
- Limited resources for employment retention
- Disclosure of disease is a common concern



How can we foster employment retention?



Evidence:

1. Vocational rehabilitation
2. Ergonomics and job accommodation
3. Comprehensive clinical care



Evidence: Vocational Rehabilitation

1. Reduction of job loss in persons with rheumatic diseases receiving vocational rehabilitation: A randomized controlled trial. (Allaire et al. 2003)
2. Effect of job maintenance training program for employees with chronic disease - a randomized controlled trial on self-efficacy, job satisfaction, and fatigue. (Varekamp et al. 2011)



Evidence:

1. Vocational Rehabilitation



- **RTC 242 U.S. employed adults with rheumatological condition** (Allaire SA et al. 2003)
 - 4-year follow-up: Intervention group less work loss (OR 0.58, p=.03)
 - Intervention: job accommodation, vocational counseling, education and self-advocacy



Evidence:

1. Vocational Rehabilitation



- RCT 122 Dutch employed adults with chronic conditions 2 year follow-up (Varekamp et al. 2011)
- Job satisfaction increased in intervention group but not statistically different than control; employment retention rates similar between groups
- Limitations: sample size, length of follow-up



Evidence

2. Ergonomic and job accommodation



- RCT 89 US employed adults with rheumatoid arthritis and osteoarthritis followed for 2 years (Baldwin et al. 2012)
- 2 X 2.5 hour work place sessions conducted by an occupational therapist
- 24 months: AIMS2 work score: 1.49 (I) - 2.16(C)
 $p < 0.03$
- Limitations: Small sample



Evidence

2. Ergonomic and job accommodation

- 85 Italian employed adults with RA followed for 8 months (Masiero et al. 2007)
- 4 X 3 hour group meetings
- AIMS2 work subscale showed no significant results
- Limitations: Sample size and follow up period



Evidence

2. Ergonomic and job accommodation



- RTC 32 British employed adults with rheumatoid arthritis (Macedo et al. 2007)
- Comprehensive occupational therapy Vs. usual care
- Results: Intervention group less productivity loss (COPM $p > 0.001$)
- Limitations: Not clear if the intervention was standard OT clinical care; No attention control



Evidence: 3. Comprehensive Clinical Care



- 140 employed adults with arthritis (de Buck et al. 2005)
- Comprehensive multidisciplinary clinical care
 - individualized assessment, case conference, and individualized plan of care
- Usual care
- Results: No difference in job loss; positive trend for job satisfaction



Summary

- Some evidence that a vocational rehabilitation approach minimizes work loss: 1 large, well conducted study with long-term follow-up (Allaire et al. 2003) and smaller, shorter follow-up study with trends
- Some evidence that ergonomic and job accommodations approach may minimize work productivity loss



Where are we going?



Where are we going?

- Several ongoing clinical trials

- Current approaches: Delivery of employment retention educational programs at the community level:
 - Health professionals
 - Technology resources to leverage scarce vocational rehabilitation resources



Community-Based Health Professionals

- **Ongoing RCT**: Can an educational approach consisting of work barrier identification and problem-solving (job accommodations, behavior and environment change) delivered by physical or occupational therapists minimize work disability?
 - Keysor JJ, Allaire SA, Boston University, USA



Community-Based Health Professionals

- **Ongoing Pilot RCT**: Can an offsite ergonomic educational program delivered by occupational therapists minimize presenteeism and work loss?
 - Alison Hammond: University of Salford, United Kingdom



Technology: Linking Scarce VR Services with Occupational Therapy

- **Ongoing RCT:** Can online web-teleconferencing technologies supporting group educational program and online VR services in conjunction with ergonomic in-person evaluation minimize presenteeism and work loss?
 - Diane Lacaille, MD. Arthritis Research Center, Vancouver, Canada



Next Steps: Critical Issues for the Field

- Measurement
 - Still no gold standard to measure work **participation**
 - Inconsistency of measures across studies
- Interventions:
 - When to intervene?
 - Who is to conduct the intervention?
 - How should the intervention be conducted?
 - Mechanisms of what works
- Limited research looking at the work environment



Thank you!