A SYSTEMATIC REVIEW OF EMPLOYMENT OUTCOMES OF ADULTS WITH CHILDHOOD-ONSET SYSTEMIC AUTOIMMUNE RHEUMATIC DISEASES

K. Gu, T. Gottschalk, L.S.H. Lim. University of Manitoba, Winnipeg, Canada

Background: Childhood-onset systemic autoimmune rheumatic diseases (ChildCRD) include: systemic lupus erythematosus (SLE), Sjogren’s syndrome, systemic sclerosis, inflammatory myositis, and chronic systemic vasculitides (Takayasu arteritis, polyarteritis nodosa, anti-neutrophil cytoplasmic antibodies [ANCA] associated systemic vasculitides). These conditions had mortality rates of up to 50%, but most patients now live into adulthood. Employment is an important milestone in adulthood: it has direct effects on one’s socioeconomic status and access to health insurance, which could in turn affect disease outcomes.

Objectives: To perform a systematic review of the employment outcomes of ChildCRD individuals. To identify gaps of knowledge and methodological issues in this field so as to inform future studies.

Methods: ChildCRD patients have disease-onset <18 years old and adulthood outcomes reported at ≥18 years old. We developed a search strategy for employment outcomes of ChildCRD with an academic librarian; this was iteratively refined and finalised after peer-review by other librarians. We included English language articles published from Jan 1990 Oct 2017 in MEDLINE, EMBASE, and Scopus. Case reports, case series, editorials, letters, or short reports were excluded. We supplemented our search by hand-searching references in review articles. Information on outcomes, prognostic factors, and study designs was recorded. Studies were graded independently by 2 reviewers (after prior training for agreement) using the Quality in Prognosis Studies (QUIPS) risk-of-bias tool which examined validity in 8 study domains. Authors were contacted as necessary for further information or clarification.

Results: Of 2109 studies, we identified 3 publications (G1) studying SLE patients. None studied other ChildCRD. Two papers were from a single study and studied both SLE and juvenile arthritis; we only used SLE patients’ information. Three additional manuscripts (G2) studied childhood- and adult-onset patients but did not report outcomes separately. All G1 studies were from North America (3 Canada, 1 USA). 193 patients in 2 studies were examined; 1 study had longitudinal (non-inception) design. Only G1 studies have data for report. Patients’ disease durations were a mean of 7.6–15 years and the mean ages at study were 23±10.1136/annrheumdis-2018-eular.4347

Disclosure of Interest: None declared

Conclusions: The employment outcomes in adulthood of ChildCRD patients have disease-onset <18 years old and adulthood outcomes reported at ≥18 years old. We developed a search strategy for employment outcomes of ChildCRD with an academic librarian; this was iteratively refined and finalised after peer-review by other librarians. We included English language articles published from Jan 1990 Oct 2017 in MEDLINE, EMBASE, and Scopus. Case reports, case series, editorials, letters, or short reports were excluded. We supplemented our search by hand-searching references in review articles. Information on outcomes, prognostic factors, and study designs was recorded. Studies were graded independently by 2 reviewers (after prior training for agreement) using the Quality in Prognosis Studies (QUIPS) risk-of-bias tool which examined validity in 8 study domains. Authors were contacted as necessary for further information or clarification.

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Conclusions: Currently, there is minimal information on employment outcomes in ChildCRD adults except for few studies on SLE; information about other ChildCRD is needed. Study populations and confounding are at moderate-high risks-of-bias, limiting the generalizability. More information on employment outcomes, the specific aspects of employment, disease and non-disease related prognostic factors affecting employment are needed.

Disclosure of Interest: None declared


PAIN INTERFERENCE ASSOCIATED FACTORS IN A COHORT OF FINNISH YOUNG ADULTS WITH JUVENILE IDIOPATHIC ARTHRITIS

K. Rebane1, T. Orenius2, R. Ristolainen2, H. Relas3, H. Kautiainen4, R. Luosujärvi3, A.T. Ortin3, O. Torron1, M. Sankkula1, P. Hurslov1, J. Pakrasi1, M. Taimela1, A. Jokiranta1, J. Rissanen1, P. Kuitunen2, K. Aalto1.1Children’s Hospital, University of Helsinki and Helsinki University Central Hospital; 2Department of General Practice and Primary Health Care, University of Helsinki and Helsinki University Central Hospital, Helsinki, Finland

Background: Pain is one of the most distressing and persisting features of JIA and frequently interferes with everyday life.

Objectives: This study was conducted to find out the factors associated with pain interference in young adults (aged 18 to 30 years) with JIA.

Methods: 195 adult patients with JIA who were eligible for the study. Associations between patients reporting outcome data and pain interference were examined. Sociodemographic and clinical data were analysed. Pain interference was measured by a single item from the RAND 36 questionnaire. Five response categories were coded into different groups: patients reporting "extremely" and "quite a bit" or "moderate" were classified having significant pain interference; “a little bit” as having minor pain interference; and "not at all" as having no pain interference. Functional disability was measured by HAQ, depressive symptoms were measured by Beck Depression Inventory-II, self-esteem was assessed by Rosenberg Self-Esteem Scale, and anxiety was assessed by PASS-20. Leisure time physical activity (LTPA) metabolic equivalent (MET) score was calculated.

Results: Pain interference scores were higher in patients expressing significant pain interference (mean 5.3, SD 2.1) and minor pain interference (mean 2.8, SD 2.09), p for linearity ˂0.001, thus the mean pain interference for the whole study group was quite low (mean 2.3, SD 2.3). Of the 195 patients 98 (50.3%) reported no pain interference, 59 (30.3%) reported minor pain interference, and 39 (20%) reported significant pain interference. We found that pain interference was associated with older age (p=0.029) and being long-term antirheumatic treatment medication (p=0.032), analgesics (p<0.001), antidepressants (p=0.008), and opioids (p<0.001). Also cohabiting (p=0.003), LTPA MET (p=0.032), smoking (0.006) being more disabled (p<0.001), having fewer leisure time activities (p<0.001) or having co-morbidities (p=0.006), and headache (p<0.001) were associated with having pain interference. Higher anxiety scores were associated with more pain interference (p<0.001). When controlling for gender, age, depression, LTPA MET, disability, life situation, disease remission, analgesics, antidepressants, and pain intensity, all subscales in PASS-20 were significantly associated with higher pain interference levels: cognitive anxiety (p<0.004), escape/avoidance (p<0.001), fear (p<0.001), psychological anxiety (p=0.016).

Conclusions: Half of the JIA patients reported pain interference, and they also expressed higher pain scores. Age, gender, using antirheumatic drugs, antidepressants, analgesics or opioids, cohabiting, lower LTPA MET score, disability, smoking, co-morbidities, lack of activities, and suffering anxiety were most significantly related to pain interference. Our study highlights the need to develop better strategies for pain-relieving interventions and for supporting patients’ health behaviour in order to achieve better pain outcome in young adults with JIA.