

第一大題：依據下列系統回顧研究摘要，針對類風溼性關節炎成人個案的職能治療，哪些介入具有強的實證力(strong evidence)? (請用中文簡述) (10%)

Effectiveness of Occupational Therapy Interventions for Adults With Rheumatoid Arthritis: A Systematic Review

OBJECTIVE. We reviewed the efficacy of occupational therapy-related interventions for adults with rheumatoid arthritis.

METHOD. We examined 51 Level I studies (19 physical activity, 32 psychoeducational) published 2000–2014 and identified from five databases. Interventions that focused solely on the upper or lower extremities were not included.

RESULTS. Findings related to key outcomes (activities of daily living, ability, pain, fatigue, depression, self-efficacy, disease symptoms) are presented. Strong evidence supports the use of aerobic exercise, resistive exercise, and aquatic therapy. Mixed to limited evidence supports dynamic exercise, Tai Chi, and yoga. Among the psychoeducation interventions, strong evidence supports the use of patient education, self-management, cognitive-behavioral approaches, multidisciplinary approaches, and joint protection, and limited or mixed evidence supports the use of assistive technology and emotional disclosure.

CONCLUSION. The evidence supports interventions within the scope of occupational therapy practice for rheumatoid arthritis, but few interventions were occupation based.

(來源：Siegel, P., Tencza, M., Apodaca, B., & Poole, J. L. (2017). Effectiveness of occupational therapy interventions for adults with rheumatoid arthritis: A systematic review. *American Journal of Occupational Therapy*, 71, 7101180050. <https://doi.org/10.5014/ajot.2017.023176>)

第二大題：依據以下摘要，請問作者所舉五大主要介入途徑為何? (15%)

Enabling Work: Occupational Therapy Interventions for Persons with Occupational Injuries and Diseases: A Scoping Review.

Abstract

Purpose: This review aims to map the scope of published research on occupational therapy (OT) interventions and pertinent work and work-related outcomes for persons with occupational injuries and diseases. **Methods:** The scoping review adapted Arksey and O'Malley's framework. Six electronic databases were searched. Ancestral search was also done on five systematic reviews. The search was conducted from September 2015 to October 2015. Interventions and outcomes were coded using the International Classification of Functioning, Disability and Health Core Set for Vocational Rehabilitation to plot trends. **Results:** Forty-six articles were included in the review. The top five intervention approaches included: acquiring skills (12.27%), health services, systems, and policies (10.43%), products and technology for employment (9.20%), handling stress and other psychological demands (7.98%), and apprenticeship (6.74%). The top five outcomes targeted included: remunerative employment (15.71%); sensation of pain (10.99%); emotional functions (5.76%); handling stress and other psychological demands (5.76%); economic self-sufficiency (4.71%); muscle endurance functions (4.71%); exercise tolerance functions (4.71%); undertaking multiple tasks (4.19%); acquiring, keeping, and terminating a job (4.19%); and looking after one's health (4.19%). **Conclusion:** The trend in interventions show the use of activities and environment facilitators which are attuned to the conceptual nature of OT. Furthermore, the trend in outcomes show that there is substantial evidence that supports the use of OT to target work. This review may provide a platform for collaboration with other professionals and also help identify research directions to strengthen the evidence base for OT in work-related practice.

出處：J Occup Rehabil. 2018 Jun;28(2):201-214. Blas AJT, Beltran KMB, Martinez PGV, Yao DPG.

第三大題：依據下文，請回答以下問題：（20%）

1. 上述內容最可出現於論文的那個 section: 前言、方法、結果或討論？
2. 請說明此論文之研究目的大致為何？
3. 傳統篩檢 Autism 之方法為何？
4. 作者所提出的新方法為何？

Most autism screeners in use today are based on questions for the parent or the medical practitioner, that produce results by comparing summed answer scores to predetermined thresholds. Notable examples are the Modified Checklist for Autism in Toddlers, Revised (M-CHAT), a checklist-based screening tool for autism that is intended to be administered during developmental screenings for children between the ages of 16 and 30 months, and the Child Behavior Checklist (CBCL). Both are parent-completed screening tools. For both instruments, responses to each question are summed with each question given equal weighting, and if the total is above a pre-determined threshold the child is considered to be at high risk of autism. In the case of CBCL there are multiple scales based upon different sets of questions corresponding to different conditions. The "Autism Spectrum Problems" scale of CBCL is used when comparing its performance to the performances of our algorithms in this paper.

In this paper, we present two new machine learning screeners that are reliable, cost-effective, short enough to be completed in minutes, and achieve higher accuracy than existing screeners on the same age span as existing screeners. One is based on a short questionnaire about the child, which is answered by the parent. The other is based on identification of specific behaviors by trained analysts after watching two or three short videos of the child within their natural environment that are captured by parents using a mobile device.

出處: Abbas H, et al. Machine learning approach for early detection of autism by combining questionnaire and home video screening. *Journal of the American Medical Informatics Association*, 2018;25:1000–1007.

第四大題：依據下文，請用中文回答以下問題：（15%）

1. 請說明本研究主要目的
2. 請列點說明主要研究結果與臨床應用

Validation of reaching in a virtual environment in typically developing children and children with mild unilateral cerebral palsy.

Aim: To compare three reaching movements made in two planes between a low-cost, game-based virtual reality and a matched physical environment in typically developing children and children with cerebral palsy (CP). To determine if differences in kinematics are related to sensory deficits. **Method:** An observational study in which 27 children (typically developing, n=17, mean age 13y, [SD] 2y 2mo, range 9y 3mo-17y 2mo; CP, n=10, mean age 13y 8mo, [SD] 1y 8mo, range 11y 1mo-17y 1mo, Manual Ability Classification System levels I-II) performed 15 trials of three gestures in each of a virtual reality and a matched physical environment. Upper-limb and trunk kinematics were recorded using an electromagnetic system (G4, Polhemus, six markers, 120Hz). **Results:** Compared to the physical environment, movements in virtual reality made by typically developing children were slower (p=0.002), and involved less trunk flexion (p=0.002) and rotation (p=0.026). Children with CP had more curved trajectories (p=0.005) and used less trunk flexion (p=0.003) and rotation (p=0.005). Elbow and shoulder kinematics differed from 2.8% to 155.4% between environments in both groups. Between groups, there were small, clinically insignificant differences with only the vertical gesture being longer in typically developing children. Children with CP who had greater tactile impairment used more trunk displacement. **Interpretation:** Clinicians and researchers need to be aware of differences in movement variables when setting goals or designing protocols for improving reaching in children with CP using low-cost, game-based virtual reality systems. **What this paper adds:** Upper-limb kinematics differed in each group when reaching in physical versus virtual environments. There were small differences in movements made by children with mild unilateral cerebral palsy (CP) compared to typically developing children. Differences in reaching kinematics should be considered when goal setting using virtual reality interventions for children with mild unilateral CP.

出處: *Dev Med Child Neurol*. 2018 Apr;60(4):382-390. doi: 10.1111/dmcn.13688. Epub 2018 Feb 10. Robert MT, Levin MF

第五大題：請扼要敘述本研究之研究方法、結果、以及臨床的應用 (15%)

DISABILITY AND REHABILITATION, 2017
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ORIGINAL ARTICLE



Occupational therapists' and physiotherapists' perceptions of implementing Occupational Performance Coaching

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ABSTRACT

Purpose: Occupational Performance Coaching (OPC) has been proposed as an intervention for working with caregivers towards achievement of goals for themselves and their children. Preliminary studies indicate the effectiveness of OPC; however, translation into practice requires an understanding of therapists' perceptions of applying OPC in their service delivery settings. This study explored physio- and occupational-therapists' experiences of using OPC and their perceptions of the contextual factors which influence its implementation.

Method: Interviews and a focus group were used to gather physio- ($n=4$) and occupational- ($n=12$) therapists' perspectives of applying OPC in their work with caregivers of children with disabilities. Data were analysed thematically.

Results: One overarching theme and three major themes emerged. The overarching theme, "Listening better" pervaded all other themes. Three major themes, each with subthemes, were: (1) Sharing power, (2) Reprioritising processes, and (3) Liberating but challenging. Implementing OPC drew on skills that were familiar to therapists and aligned with existing values when working with families but challenged some aspects of their practice.

Conclusions: From physio- and occupational-therapists' perspectives, OPC is applicable in a range of paediatric service environments. However, therapist and service-level flexibility appeared to be key contextual factors in adhering to intervention principles.

ARTICLE HISTORY

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KEYWORDS

Paediatric rehabilitation; coaching; family-centred practice; physiotherapy; occupational therapy; interprofessional; feasibility

► IMPLICATIONS FOR REHABILITATION

- Occupational Performance Coaching (OPC) is a strengths-focused intervention in which caregiver engagement and active involvement is prioritised.
- Therapists reported distinct changes to the process of therapy and outcomes achieved following OPC training and implementation.
- Most therapists indicated that OPC enabled them to operationalise person-centred principles to a greater extent which they perceived enhanced the way therapy was delivered and the benefit to services users.
- Some flexibility in service structures may be needed to implement OPC in the way it was intended.

Introduction

Occupational Performance Coaching (OPC) aims to improve children's participation by employing coaching with caregivers in order to create more enabling environments [1–3]. This approach, which focuses on parent empowerment, is consistent with recent developments in paediatric rehabilitation [4–6]. The strengths-based and relational emphasis of these interventions provides a distinct shift from the traditional "problem-oriented, therapist-directed approach" [4, p. 1]. Like many of these interventions, the objective of OPC is to first, enable children's and families' performance in the roles and activities they value, and second, to build caregivers' confidence and competence to independently manage future challenges.

Techniques within OPC include building collaborative relationships with caregivers in which respect and empathy for their experiences are emphasised [1,7]. OPC typically involves reflective

goal-oriented conversations exploring the most meaningful improvement for caregivers with greater emphasis on caregivers' desired (rather than current) performance; exploration of performance contexts and explicit attention to caregivers' needs. Strategies or techniques may be trialled or demonstrated but only for the purpose of caregivers deciding if, how, and when they would apply these during performance of activities within daily routines.

Preliminary research indicates that OPC leads to achievement of caregivers' and teachers' goals for children [3,8,9] and improvement in caregiver sense of competence [3]. However, each of these studies has occurred in controlled research conditions.

The context of service delivery is increasingly being recognised as having a significant effect on how interventions are implemented [10]. This is particularly true for "complex" interventions, comprised of multiple interacting components [11], such as OPC.

第六大題：請將以下段落翻譯成中文 (15%)

Occupational Therapy in Integrated Behavioral Health Care: A Visual Service Framework

Collaborative Care Current research and health policy initiatives have shifted priorities to integrated care, with partnerships across all aspects of health (U.S. Department of Health & Human Services, 2018). People with serious mental illness have been found to experience co-morbidities, chronic diseases, chronic pain, and premature morbidity at a higher rate than their peers (Brekke et al., 2013; Tepper et al., 2017). Thus, the integrated setting offers a unique opportunity to address the physical and mental health problems affecting their overall health, well-being, and ability to engage in meaningful activities. A collaborative care model is suggested to be more effective for this client population than traditional care in targeting functional outcomes, but research studies on this model have yet to include occupational therapy (Schmit et al., 2018). I saw this as a huge opportunity, in which occupational therapy can fill the current service gap to contribute to true collaborative care that addresses the whole person—both their physical and mental health conditions as well as their functional abilities within their natural environment. Adding occupational therapy services in this setting supports the ultimate goal of facilitating healthy, meaningful life in recovery for those with serious mental illness. It is imperative to respect each member of the integrated care team's expertise and how they can collaborate to best serve each client—the most crucial and complex component when implementing occupational therapy services in this setting.

出處: Retrieved from <https://www.aota.org/Publications-News/otp/Archive/2018/integrated-behavior-OT-practice> (Dec 2018) Alli Ferlin, Heidi Fischer, Celeste Januszewski, and Bridget Hahn
12/24/2018

第七大題：請為此論文訂一個適合的英文題目 (10%)

OBJECTIVE. We investigated factors that influenced occupational therapists' beliefs about and use of sensory-based approaches for children with autism spectrum disorder (ASD).

METHOD. Occupational therapists working with children with ASD ($N = 211$ from 16 countries) completed an online survey addressing their work experience, training, use of sensory-based approaches, and beliefs and perceptions about the effects of the approaches. Linear regression was used to determine predictors of use of and beliefs about sensory-based approaches.

RESULTS. Most respondents (98%) used sensory-based approaches for children with ASD and would recommend the approaches for 57% of the children they treated. Having a mentor who promoted sensory-based approaches and practicing outside North America and Australia predicted greater use and perceived effectiveness of these approaches. Less than 5 yr of occupational therapy experience predicted less use of the approaches.

CONCLUSION. Respondents selectively used sensory-based approaches for children with ASD and were influenced by country of residence, clinical experience, and mentorship.

Thompson-Hodgetts, S., & Magill-Evans, J. (2018). Sensory-based approaches in intervention for children with autism spectrum disorder: Influences on occupational therapists' recommendations and perceived benefits. *American Journal of Occupational Therapy*, 72, 7203205020. <https://doi.org/10.5014/ajot.2018.024729>