



The Implementation of the Integrative Cognitive Rehabilitation Psychotherapy Model in a Pediatric Concussion Clinic

Mark Pedrotty*

Professor Emeritus, Pediatrics, Carrie Tingley Hospital, University of New Mexico, USA

*Corresponding author: Mark Pedrotty, Professor Emeritus, Pediatrics, Carrie Tingley Hospital- University of New Mexico, 1127 University Blvd NE, Albuquerque, NM 87103, USA

Received: 📅 September 29, 2022

Published: 📅 October 12, 2022

Abstract

Introduction: The Integrative Cognitive Rehabilitation Psychotherapy (ICRP) model is essential in treating co-occurring issues in pediatric concussions. Knowledge of this model allows clinicians to identify co-occurring issues that can complicate recovery and refer to appropriate treatment team members to appropriately set treatment goals and maximize outcome.

Discussion: The ICRP model is described and application to different types of patients provided. Three cases with different complexity are reviewed.

Conclusion: The majority of pediatric concussions resolve quickly. However, the symptoms for many pediatric concussions can linger for a year or more. Identifying co-occurring issues and applying the ICRP model results in participation in treatment and positive outcome.

Introduction

Pediatric concussions are common and typically resolve quickly. However, many pediatric concussions are not simple, and symptoms can continue to be present up to a year post injury. Identifying co-occurring issues and treating accordingly can engage the patient and family in treatment and maximize outcome. The Integrative Cognitive Rehabilitation Psychotherapy (ICRP) model [1] provides a format to treat complex pediatric concussions.

The ICRP model assesses the quantity and quality of co-occurring elements (cognitive, psychosocial, biological, and substance use) to develop goals and objectives that are culturally sensitive and specific to the stage of recovery (i.e., surviving, healing, thriving, and maintaining). The goals and objectives include eight interventions (medical, complementary and alternative medicine, healthy lifestyle, medication, environmental strategies, external compensatory strategies, internal compensatory strategies, and cognitive retraining or training). The goals and objectives include any of the seven cognitive areas (alertness and stamina, attention and problem solving, working memory, memory, communication, fluency, and executive functioning) that might be impaired and

accommodate treatment of co-occurring issues to integrate the cognitive issues into care. Readiness to change is assessed in determining level of awareness and insight into issues and creating client-centered and culturally sensitive goals and objectives. An interdisciplinary or transdisciplinary team provides ongoing assessment and cross communication in creating and implementing treatment strategies. Emergent issues and engagement in treatment issues are managed by the team through ongoing communication. Initial assessment establishes which experts on the team focus on what issues. The primary care provider (PCP) or sports medicine provider (SMP) identifies what co-occurring issues are present and refers to the appropriate experts to treat related co-occurring issues. The complexity of the case drives the involvement of experts on the team. A review of different complex cases will be discussed.

Readiness to change is assessed in determining level of awareness and insight into issues and creating client-centered and culturally sensitive goals and objectives. (add in here See Figure 1). An interdisciplinary or transdisciplinary team provides ongoing assessment and cross communication in creating and implementing treatment strategies.

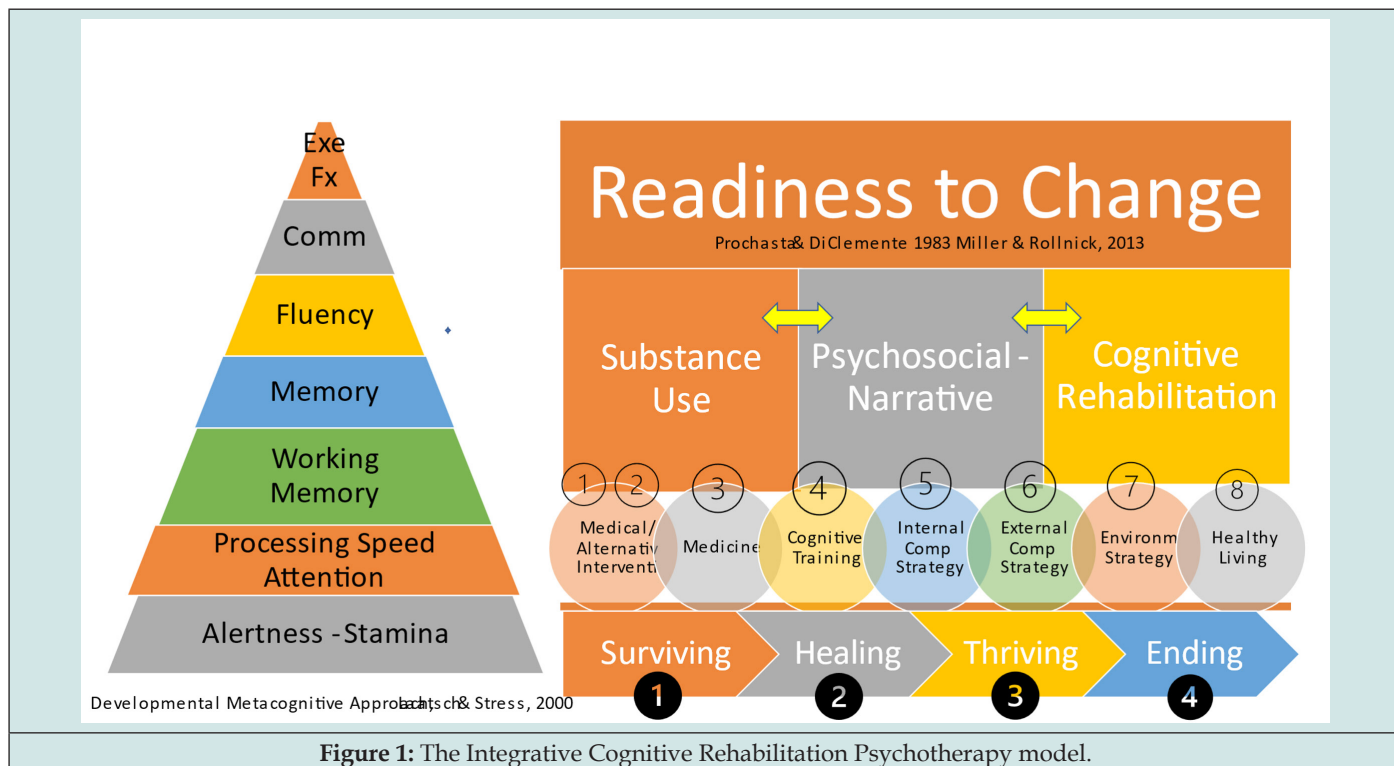


Figure 1: The Integrative Cognitive Rehabilitation Psychotherapy model.

Discussion

Case I

Adolescent suffers a third concussion within the year playing sports, and recovery is slower than recovery from previous concussions. Vestibular, ocular and motor issues, cognitive slowness, memory issues, light and sound sensitivity, and headaches are present. The sports medicine physician (SMP) or primary care physician (PCP) manages the headaches and sleep issues and refers to physical therapist (PT) who treats the vestibular ocular and motor issues. Cognitive, memory, and sensitivity to light and sound issues resolve as treatment progresses. Return to learn protocol was implemented, and over time, the adolescent returned to school with accommodations and then without accommodations. Return to play was discussed with patient and family by SMP or PCP.

Case 2

Latency age child with mild TBI was treated by SMP, PCP, PT, occupational therapy (OT) and speech therapy (SLP). Rehabilitation psychologist was added to the treatment team as psychological and cognitive issues continued and treatment goals and objectives were integrated across disciplines Cognitive issues are identified and worked on simultaneously with psychological issues to incorporate emotional regulation, trauma resolution and compensatory

strategies into managing symptoms. Headaches and nausea persist, so vision evaluation and treatment of persistent visual issues are integrated into treatment. Resolution of vision issues resulted in resolution of headaches and nausea and improvement in academic, cognitive, and psychological functioning. Student was able to participate in school without accommodations and engage in extracurricular and community activities without issues.

Case 3

Young adult suffers multiple concussions as an adolescent engaging in recreational activity and then in return to play in a school sport. One year post initial concussions, the symptoms continue. The SMP or PCP, PT, optometrist, and rehabilitation psychologist work on co-occurring issues. Symptoms improve initially. Psychosocial and cognitive issues worsen resulting in reduced engagement in other therapies and emergent care. Psychiatric care is added to the treatment team to manage serious psychiatric issues, while rehabilitation psychologist and counselor focus on accommodations for cognitive and psychological issues to improve engagement in other therapies and develop appropriate coping skills and compensatory strategies. Concussion symptoms begin to resolve, and management of the psychiatric symptoms with accommodations for cognitive and psychological issues become the focus of care (Table 1).

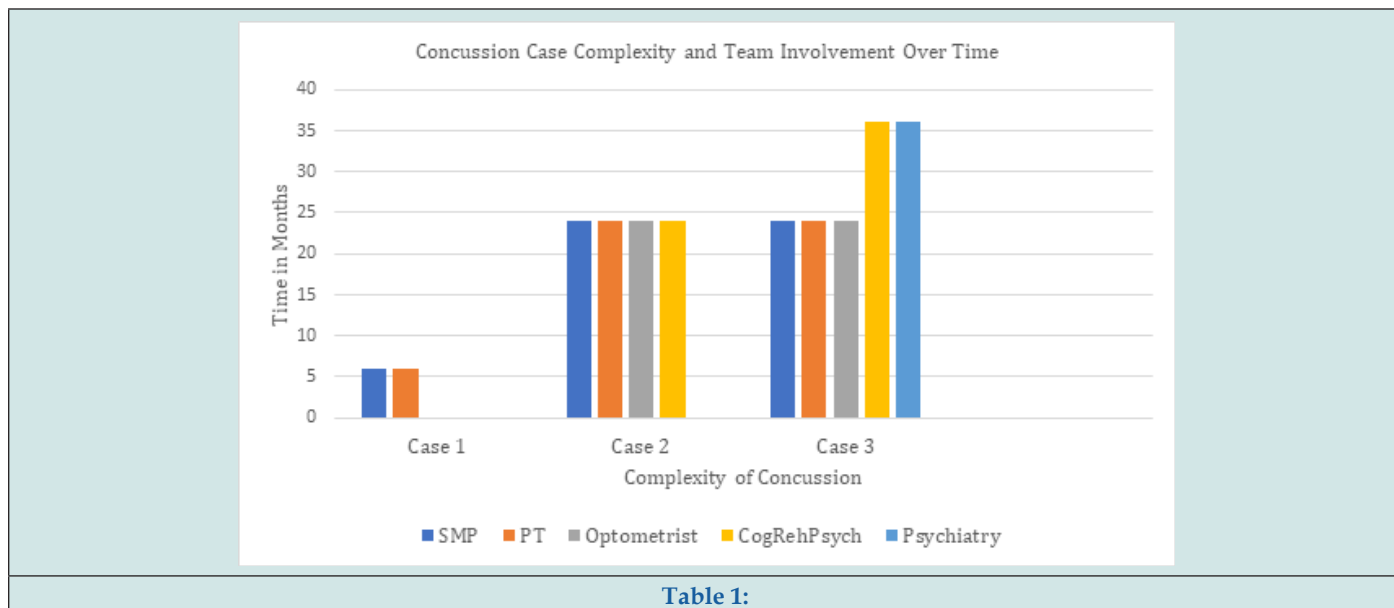


Table 1:

Conclusion

These case studies support the benefits of applying the ICRP model to the care of pediatric and young adult concussion. The essential element to the model is the integrative treatment of co-occurring issues that would be ignored or inadequately treated using traditional care that does not accommodate for the cognitive issues and the relationship of those issues to treatment of co-occurring issues. An important component of ICRP is the application of an interdisciplinary or transdisciplinary model in setting goals and objectives across co-occurring issues and the simultaneous care of several co-occurring issues. Working through stages of recovery in

developing appropriate goals and objectives and accommodations across interventions for cognitive issues is essential to engagement in therapy and good outcome.

Thanks to Drs. T. Sim-Wong and E. Wilde for helpful comments on manuscript and staff and families in the pediatric concussion clinic for their teamwork.

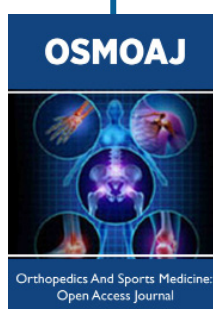
References

1. Pedrotty, M, Wong TS, Wilde EA, Bigler ED, Laatsch LK (2021) Application of neuropsychology and imaging to brain injury and use of the integrative cognitive rehabilitation psychotherapy model. *Neurorehabilitation* 49(2): 307-327.

This work is licensed under Creative Commons Attribution 4.0 License

To Submit Your Article Click Here: [Submit Article](#)

DOI: [10.32474/OSMOAJ.2022.06.000232](https://doi.org/10.32474/OSMOAJ.2022.06.000232)



Orthopedics and Sports Medicine Open Access Journal

Assets of Publishing with us

- Global archiving of articles
- Immediate, unrestricted online access
- Rigorous Peer Review Process
- Authors Retain Copyrights
- Unique DOI for all articles