Rehabilitation Processes following Traumatic Brain Injury

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All blessings are divine in origin, but none can be compared with this power of intellectual investigation and research, which is an eternal gift producing fruits of unending delight.

‘Abdu’l-Bahá, The Promulgation of Universal Peace, p. 50
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Statement of Ethical Conduct

The research associated with this thesis abides by the international and Australian codes on human and animal experimentation, the guidelines by the Australian Government’s Office of the Gene Technology Regulator and the rulings of the Safety, Ethics and Institutional Biosafety Committees of the University.

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Abstract

Traumatic brain injury (TBI) may result in significant impairment in an individual’s physical, cognitive and psychosocial functioning, and is acknowledged to be the leading cause of long-term disability in young adults (DSM III; 1999). An increasing body of high-quality evidence now exists for the effectiveness of rehabilitation interventions for TBI of all severities (Powell, Heslin, & Greenwood, 2002; Turner-Stokes, 2008; Wade, Crawford, Wenden, King, & Moss, 1997). However, there is a need for a more comprehensive description of the types of care allocated at the end of the acute phase of TBI, and the factors that influence variation in referral and access to services. Much of the literature focuses on people with severe TBI receiving specialist rehabilitation, and considers only hospitalised cases.

The aims of the present research were to investigate patterns of referral to outpatient rehabilitation services in a population-based sample, to describe factors related to progress in rehabilitation for those referred to public community rehabilitation, and to increase understanding of TBI and its management, by developing a model of rehabilitation pathways. Study 1 looked at some demographic, injury-related, and post-injury characteristics of the participants of the Tasmanian Neurotrauma Register (TNTR) research project (N = 1226), and examined differences in the groups referred to public and private rehabilitation. Studies 2, 3 and 4 looked at the sub-sample of individuals (n = 175) referred for public multidisciplinary rehabilitation at the Community Rehabilitation Unit (CRU). These three studies considered how a range of variables were related to referral to CRU’s clinical disciplines, to the likelihood of being offered appointments, and to attendance or non-attendance at initial appointments, when offered them. Study 5 looked further at how
rehabilitation services contribute to TBI patients’ recovery by considering the amount and nature of therapy participants received at CRU.

This research provides clinicians and researchers with a clearer picture of some of the factors that affect the post-acute rehabilitation process, in a sample of TBI patients that is more representative of adult TBI than those found in the overwhelming majority of studies, which typically consider only moderate to severe TBI and/or hospitalised cases. The rehabilitation pathways and processes outlined will be valuable for rehabilitation clinicians who wish to identify people at risk of poor outcomes. The findings of this research provide a foundation upon which a number of avenues for further research can be based. These include looking at different measures of outcome in TBI samples referred for community rehabilitation, identifying effective interventions that are compatible with existing rehabilitation services, and comparing outcomes in matched samples referred and not-referred for rehabilitation.
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The research reported in this thesis resulted from collaboration between the Community Rehabilitation Unit (CRU), an agency of the Department of Health and Human Services in Tasmania, and the University of Tasmania. My thanks are due to all the CRU staff—too numerous to mention individually—who helped me with this research, and who were always open and welcoming. In particular I would like to thank Ms Jenny Langley, Dr. Maryanne Davis, Dr Iain Montgomery, and Dr. Peggy Foreman who each assisted me in many ways over the life of the project. I also thank Mr. Paul Shinkfield, who was the manager at CRU when I began the research, for his help negotiating the agreement between the two agencies, and Ms Kerry Williams, the current manager, for her support and willingness to read and comment on some of my early write-ups about CRU’s clinical services.

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