Use of the international classification of functioning, disability and health as a framework for transition from paediatric to adult healthcare

T. Nguyen and J. W. Gorter

School of Rehabilitation Science, McMaster University, Hamilton, Ontario, Canada

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Introduction

With advances in medical technology and healthcare, an increasing number of adolescents with chronic health conditions, including childhood onset disabilities, are now surviving into adulthood (Blum et al. 1993). For adolescents with chronic health conditions growing up and becoming an adult, this important developmental stage represents a challenging period as they are at risk of delayed developmental trajectories, and face numerous barriers in achieving independence and autonomy (Stewart 2009). A recent study by Verhoof and colleagues (2011) shows indeed that adult outcomes for youth with a range of chronic conditions are in need of improvement.

It must be recognized that a new generation of adolescents with chronic health conditions have conditions that can have a negative impact on their health and functioning of all the life domains, most of which are preventable.

Institutional transition from paediatric to adult services, in particular from paediatric to adult health care for youth can be complex and often requires an integrated effort from the paediatric, adolescent and adult healthcare communities. According to the Society for Adolescent Medicine ‘medical transition’ is defined as a multifaceted, active process that attends to the medical, psychosocial and educational needs of adolescents as they transfer from paediatric to adult care (Betz 2007). Usually a range of healthcare providers, including physicians and allied professionals, interact with adolescents with chronic health conditions at various levels of care throughout their medical transition, requiring clear communication among the young people, their families and among their colleagues (Callahan et al. 2001). Although there is a growing literature on transition issues and models of care, individual clinicians working with adolescents with chronic health conditions may find it difficult to address this dynamic process effectively. Many current transition programs lack of a universal language and approach to care. It is a challenge for clinicians to oversee medical transition, so it is understandable that adolescents and their families find it difficult to navigate through this process (Callahan et al. 2001).

Through a recent article by Gorter (2011), it is suggested that paediatricians adopt a holistic perspective and approach to transitional care by utilizing the concepts in the World Health Organization’s International Classification of Functioning, Disability, and Health (ICF) and its Child and Youth version (ICF-CY) framework (Fig. 1) (World Health Organization 2001, 2004).

The international classification of functioning, disability and health

The ICF is a universal conceptual framework for health and a classification system that describes human functioning and
disability in terms of body functions and body structures, activities and participation in society and contextual factors (McDougall et al. 2001). The ICF framework allows clinicians to understand a person’s functioning by addressing the complex interaction between the person and their environment (e.g. social attitudes, environment accessibility, social relationships, service availability, etc.) (McDougall et al. 2001). In contrast to a medical diagnostic process that involves ‘ruling out’ various possibilities (based on the history and the test results) until we get to the ‘right’ one, the ICF ideas encourage a ‘rule in’ approach in which we include all relevant elements across several domains of the ICF. It also allows us to ‘rule in’ strengths and personal factors – something that is missing in a traditional biomedical approach to understand symptoms and to obtain a diagnosis. Leonardi and Martinuzzi (2009) demonstrated that ICF-based functional profiles, rather than the medical diagnosis alone, are useful in designing better interventions by addressing activities clients consider important in their daily living. ICF-based functional profiles can also identify environmental factors that may act as barriers or facilitators to the clients’ well-being and participation in society. These results are reflective of the increasing evidence that application of the ICF framework may assist clinicians in developing comprehensive care plans that are based on the youths’ needs in transitional care and beyond (McDougall et al. 2001; Leonardi & Martinuzzi 2009).

**Figure 1.** The International Classification of Functioning, Disability and Health (ICF) Conceptual Framework. In the ICF framework, ‘health condition’ represents disorder or disease, ‘functioning’ encompasses all body functions and structures, activities and participation, and ‘disability’ is defined as impairments (problems in body function or structure), activity limitations (difficulties in carrying out daily activities) and participation restrictions (problems involved in social situations). The interactions among the different domains are represented by bidirectional arrows reflecting the ongoing influence of environmental factors on body functions, activities and participation, and vice versa (World Health Organization 2001).

**Purpose**

This paper explores the use of the concepts in the ICF framework as a tool to guide practice to support and improve transitional care for adolescents and their families. We aim to raise awareness about the ICF and describe its potential application in chronic care. In the process of transition to adulthood three phases can be identified: the preparation, the journey itself, and the landings in the adult world (Stewart et al. 2009). We will discuss the use of the ICF for each phase.

**Phase I: preparation**

The ‘preparation’ phase takes place during a youth’s late childhood and early adolescence as they begin to look ahead and prepare for adult life (Stewart et al. 2009). Application of the ICF framework in the preparation phase can help clinicians and adolescents to think about current and future functioning and how a change in one domain of health can potentially alter their whole healthcare plan. For example, if an adolescent with cerebral palsy wishes to attend university, their healthcare plan needs to reflect and accommodate for changes in their environment (new educational institution), activities (independent living), and participation (interacting with new peers), in addition to personal and developmental changes that the adolescent is experiencing (move away from home). Likewise, a paediatric or adolescent medicine specialist could make a similar analysis with an adolescent with diabetes mellitus, cystic fibrosis or eating disorder, to name just a few conditions. Although the medical issues may vary, the challenges and life issues in the preparation for transition usually are similar.

In using the ICF framework, age-appropriate services for adolescents with chronic health conditions can be identified and integrated into their healthcare plan to reflect their present and future goals and needs. With the ICF the healthcare team can recognize the adolescent’s goals for transition and strive to address those goals. A current study by Kraus de Camargo (2011) provides evidence that the ICF may facilitate the planning of successful transitions by encouraging clinicians to become aware of the many transition in systems of care beyond the health system, including education and social welfare.

**Phase II: the journey**

The ‘journey’ phase takes place during the transition itself, and represents a period in which the adolescent is experiencing changes from one developmental stage, environment or role to another (Stewart et al. 2009). As the adolescent moves from
paediatric to adult care, they experience changes in environments or ‘cultures’ (Stewart et al. 2009). They must learn to adapt to the adult care environment with new services, new customs and possibly different ‘lingo’ of professionals. In addition to a summary of the medical situation (discharge summary or referral) it is important to work with an integrated, actualized, mobile and accessible transition plan for every young person (Gorter et al. 2011), including a transfer document from the paediatric healthcare team to the potential adult healthcare providers. The ICF framework and content may provide a basis to develop such a plan.

**Phase III: the landing**

The phase of ‘landing’ in the adult world recognizes that adolescents will reach a destination, with outcomes and goals being met, and time taken to ‘refuel’ before starting on another journey along their life course (Stewart et al. 2009). Because the multidisciplinary team approach is often less developed in the adult health system – for example there usually is no adult equivalent for a paediatric spina biﬁda team – it may be diﬃcult for adolescents with chronic health conditions to plan and co-ordinate services, and to maintain consistent and eﬀective communication with all the healthcare professionals they need in their circle of care. A strength of the ICF framework is the common language that can encourage collaboration among healthcare professionals and clients. For example, Stucki and colleagues (2003) described how the language offered by the ICF may change multi-professional communication and relationships between clinicians and clients. The ICF may show more clearly a proﬁle of the young person’s situation – both their strengths and interests and the impact of the chronic health condition on their life. It is hoped that the ICF will contribute to a more comprehensive and less fragmented and redundant services in adult health care.

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**Key message**

In summary, given the universal concepts and language of the ICF, we believe it is timely for clinicians, educators and everyone working with adolescents with chronic health conditions to incorporate its framework in transitional care assuming that its usefulness will be evaluated. The ICF has potential to improve communication and collaboration between health professionals to ensure adult health outcomes that are meaningful to adolescents with chronic health conditions.

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**References**


