Thinking beyond impairment

Recommendations from contemporary models of care for working with children and disability

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Background
The National Disability Insurance Scheme emphasises the use of models that move beyond an impairment focus to a holistic and individualised approach to disability. Application of specific biopsychosocial models supports general practitioners (GPs) to advance best practice in disability care within these schemes by meeting the complex care needs of their clients.

Objective
The aims of this article are to: 1) review current biopsychosocial models that underpin the health and functioning of children living with a disability in order to identify common elements of relevance to the paediatric sector, and 2) provide considerations for applying a biopsychosocial approach to paediatric care in practice.

Discussion
A succinct summary of common concepts within biopsychosocial models used in the paediatric setting, and recommendations for how these models can be best applied in practice, are presented in this article. The GP plays a crucial part in initiating and supporting children and adolescents who have complex care needs. Understanding these key concepts is fundamental to this process.

DISABILITY can be defined through the parameters of intellectual, physical, sensory, cognitive and psychosocial impairments that have an impact on individual health and functioning. While working to reduce these impacts, there has been substantial growth in the use of multidimensional models for evaluating disability, with various models adopted and adapted by health professionals to suit their needs. Further, interactions with individuals might vary based on the model or approach to disability used by practitioners. A medical model of disability views disability as inherent to an individual, with approaches primarily focused on the remediation or treatment of identified impairments.[1] Conversely, social models of disability recognise the sometimes disabling role of the environment and social contexts, with intervention approaches aimed at responding to these external factors.[2] The influence of social context is important, especially for children, as family members and other people close to the patient (eg support staff in supported accommodation settings) are likely be very important conduits and advocates. Biopsychosocial models integrate both social and medical perspectives, recognising the complex interactions between the individual and their environment that should be considered.[3] Given their holistic approach, biopsychosocial models have gained traction in clinical practice and are the focus of this article.[4] We acknowledge the expertise of general practitioners (GPs) regarding the application of biopsychosocial models in practice and the integration of these models into medical curricula and core training. Ongoing discussion of these models, however, remains relevant to advancing best practice in disability care, especially in the context of the National Disability Insurance Scheme (NDIS).[5]

In an Australian context, biopsychosocial frameworks, in particular the World Health Organization's International Classification of Functioning, Disability and Health (WHO ICF),[6] underpin the goals of the NDIS to support the independence and social and economic participation of individuals with a permanent and significant disability that considerably affects functional capacity for participation.[7] The scheme is available to Australians aged 7–65 years, with early intervention available for children under the age of seven years under separate eligibility criteria. More information about the scheme can be found on the NDIS website (www.ndis.gov.au). As children and young people represent approximately half (48.6%) of active participants within the NDIS, the focus of this discussion is on the use of biopsychosocial models in paediatric populations by GPs. The changing field of paediatric care has an emphasis on participation and quality of life; therefore, it is important that GPs understand the domains of participation and how GPs can optimise the use of biopsychosocial models. This is particularly relevant when navigating the complexities of the NDIS alongside children and their families who may be eligible to access it.

Within a biopsychosocial framework, three models that are frequently adopted by health professionals include the ICF,[6,8] the F-words[9] and Newell's constraints model;[10] refer to Table 1 for further details. With paediatric practice in mind, the aims of the current article are to: 1) review these models that underpin the health and functioning of children living with a disability in order to identify common elements of relevance to the paediatric sector, and 2) provide considerations for applying a biopsychosocial approach to paediatric care in practice.

Common elements across selected frameworks

In reviewing the three models (ICF, F-words, Newell's constraints model), four elements common to each model were identified that, while not exhaustive, collectively represent key features of the biopsychosocial approach. Each model places the individual in a central role of importance, with a directive to focus beyond one's impairment to consider the whole person. Further, each model highlights the importance of function (ie what people do). These models once again promote moving beyond impairment only, to encourage understanding impairment in relation to its impact on an individual's functioning. All models further highlight the necessity of understanding and working with the client in the context of the environments that surround them. When combined, the models provide a spectrum of environmental considerations that span the micro (family) to the macro (societal attitudes, systems and structures). Finally, and although not immediately obvious at face value, each model recognises the role of time. Time is considered with

Table 1. Biopsychosocial models with proposed relevance to paediatric care

Model name	Domains included	Guiding principles
International Classification of Functioning, Disability and Health (ICF)	Disability and functioning are the outcomes of interactions between health conditions and contextual factors (environmental or personal). Three levels of functioning: • Body functions and structures (specific body function or part) • Activity (the whole person) • Participation (the whole person within a social context) Disability is defined as a dysfunction at one or more of these levels.	The ICF is a validated, universal framework used to describe and document health status.
F-words	Six domains: • Function – what people do; how this is done is not important • Family – a child's essential 'environment'; they know the child best • Fitness – how children stay physically active, something everyone needs to do • Fun – particular activities children are involved in or enjoy participating in; childhood is about fun and play • Friends – friendships with peers are important, and social development is an essential aspect of personhood • Future – what child development is all about; it refers to parents' and children's expectations and dreams for their future	Building on the ICF, the F-words are key strengths-based themes that are designed to be fun and easy for children, young people, families and service providers to remember and use.
Newell's constraints model	Three interacting categories of constraints: • Individual – physical (strength, size) and functional (motivation, anxiety, intentions) characteristics of the individual • Environment – physical (weather conditions, objects) and sociocultural (values, pressures, expectations) characteristics of the broader environment • Task – specific parameters (equipment, objectives, rules) of the task to be performed in an environment	Goal-directed behaviour emerges under the influence of interacting constraints. Constraints provide boundaries that shape and guide the dynamic self-organisation of behaviour.

respect to both developmental changes that occur with the passing of time and a future-focused optimistic outlook for 'times to come'. Identifying the elements common to all three models supports the application of multiple specific biopsychosocial models best suited for use with children with disabilities.

Considerations for applying a biopsychosocial approach to paediatric care in practice

Whole person

A whole-person approach to healthcare addresses the multiple factors of the individual and their context rather than the biomedical factors that inform care; that is, the whole of a person is seen as greater than a sum of the parts.[11,12] This interrelates with the need to recognise the individual personhood or multidimensional aspects of an individual, primarily that best-practice healthcare acknowledges biological, psychological, social, environmental and emotional contextual factors that influence an individual's health and treatment.[11,13] Therefore, the integration of a wide range of treatment modalities, with an emphasis on interdisciplinary models of care, is required.[14]

Effective whole-person approaches to healthcare centre on the therapeutic relationship between the individual and their GP. Collaborative approaches are required that emphasise the engagement of the client in the process to facilitate increased GP knowledge of the client, trust and opportunities for improved care.[5,12,13] This approach also emphasises the personal attributes of the GPs to foster the therapeutic relationship, providing opportunities for increased self-awareness and avenues for personal growth.[12]

Function

Facilitating function is the central premise of the NDIS – to enable people to live an ordinary life.[7] The ICF[8] highlights a shift away from one's diagnosis, instead focusing the impact of the diagnosis on everyday life. Furthering this, the F-words model[9] advocates a shift away from focusing primarily on treating the impairment, as this does not automatically result in changes in function. Instead, the focus is increasing opportunities for function as a therapeutic intervention, regardless of whether such function is within the realms of 'normal'. This can, in turn, contribute to positive physical, emotional and psychological changes and increases in future function, a point also reflected in the constraints model.[15] While function is reflected in the ICF domains of participation (involvement in a life situation) and activity (the tasks within those life situations),[8] the constraints model itself is a model of function, a lens to interpret how the constraints of the task, environment and person guide peoples' function.[10] GPs are therefore encouraged to ask their clients how their impairment affects their function and what their functional goals are, and prioritise opportunities to achieve these goals, regardless of the way in which they do so.

Environment

Moving the focus away from diagnosis/impairment illuminates the often overlooked environmental factors that have a profound impact on functioning. Environment can include the physical (technology, built environment, natural environment), social (the people – family, friends, health professionals) and attitudinal (the attitudes, values and cultural norms of these people and greater society) contexts in which people live. Both the ICF[8] and the constraints model[10] recognise the influence of these environmental factors on a person's functioning. Of particular relevance in a paediatric setting is family, which the F-words model[9] highlights as a child's central environment. It subsequently stresses the importance of family-centred care in which GPs actively seek to understand the complexities, challenges and strengths of each family and provide them, as a whole, with the necessary resources and supports.[9] Such care has been proven to provide improved client satisfaction and therapy outcomes.[16] Consideration should be given to these environmental factors, as health professionals can play a direct role in influencing these constraints to support a child's participation and goal attainment over time. In situations where these constraints cannot be modified/influenced, considering the impact of environmental barriers at least provides a more holistic, and hopefully empathetic, understanding of clients' lived realities.[17]

Time

Within the context of childhood health and development, the concept of time is a critical yet often overlooked consideration. Irrespective of a service provider's discipline, a child's individual characteristics and the wider sociocultural environment, the primary goal of any healthcare plan is to best prepare a child for the opportunities and challenges they may experience in the future.[18] Grounded in the ICF, one of Rosenbaum and Gorter's six F-words, 'future', represents the dynamic aspect of time in the respect that 'children are in a constant state of becoming'.[9] Therefore, 'future' provides direction for the five allied F-words by encouraging GPs, families and other stakeholders to acknowledge the present but not lose sight of the goals and challenges to come. Newell's constraints model[10] also incorporates the role of time by distinguishing time-dependent from time-independent individual constraints in the regulation of goal-directed behaviours. Specifically, physical constraints (eg body structure and function) are expected to change with reference to time, while functional constraints (eg motivation, intentions) are largely situation dependent.[10,15]

Regardless of the model, a key implication for GPs is to respect the dynamic nature of change across different timescales.[19,20] Recognising both the influence of 'real-time' goal-directed behaviour on future development and the constraints presented by developmental changes on real-time behaviour are critical to ensure healthcare plans are appropriate for the present as well as responsive to the needs and goals of a child in the future.

Recommendations and conclusions

There are key practical and NDIS recommendations from the three aforementioned models that complement the patient-centred clinical method promoted in general practice.[5]

Practical implications

All three models are underpinned by a common language that can be adopted by health professionals and children and their families. First, including children and families in the biopsychosocial approach to care advocated by these models can facilitate collaborative conversations that inform the development of task-specific and personalised goals across multiple domains. For example, immersing the child (and family) in the healthcare plan by asking questions such as, 'What would you like to do next that is fun?' to promote ownership and 'buy in'. It may also help to shape discussions for those in the NDIS scheme regarding reviewing supports that work towards goals for future plans. Having a consistent language also promotes clear and succinct communication between health professionals to ultimately promote best outcomes for children and their families.

These concepts can also be used to frame documentation about clients. One example is using the three subheadings (body structure and function, activity and participation) and the contextual factors from the ICF to summarise assessment findings and/or create a holistic profile of a client. Developing and documenting goals underneath these headings may also help to facilitate participation in the goal-setting process and identify what should be focused on (CanChild F-words Goal Sheet[9], www.canchild.ca/en/research-in-practice/f-words-in-childhood-disability/f-words-tools). Incorporating the constraints model can also assist in identifying and communicating the key interacting constraints that are shaping the goal-directed behaviour of a child and which of those constraints are accessible to be manipulated by a healthcare professional, with input from the child, at the time. For example, task (goals, objectives, instructions) and, to lesser extent, environmental constraints (ambient conditions, social expectations) are typically the most accessible to be modified in the moment, while individual constraints (body structure and function) are generally beyond the control of a healthcare professional, child or family, at least in the short term. As GPs are often the primary healthcare professional, they are well placed as leaders in the use of biopsychosocial models of care, evidenced by wide acceptance and implementation of these models into clinical care and medical education.

NDIS implications

GPs play an important part in facilitating access to the NDIS and providing ongoing support and information to clients already in the scheme.[21] The biopsychosocial models described in this article, and the common elements across them, may provide additional understanding and guidance when documenting the health and functioning of clients, particularly for those who may meet NDIS eligibility criteria. Models help navigate the complexities of the NDIS systems. For example, when assessing functional capacity, the NDIS recommends that these assessments take place within the ICF framework. Furthermore, the activities and social and economic participation components listed under the disability and early intervention requirements (sections 24 and 25) in the NDIS Act can be linked to the activities and participation domains of the ICF.[22,23] Use of biopsychosocial models such as the ICF, F-words and Newell's constraints model, or at least a biopsychosocial approach, is therefore recommended when facilitating the health and functioning of children with a disability and their families.

The aforementioned key practical and NDIS recommendations from the three models discussed complement the patient-centred clinical method that is the focus of general practice. While in this article we have highlighted the relevance of these models to paediatric disability, we encourage exploration of their application to broader client groups.

Key points

- Best-practice care acknowledges the biological, psychological, social and environmental factors that influence an individual's health and treatment.
- The understanding of an individual's impairment must be coupled with an understanding of what this means for someone's function, that is, their ability to do the things they need, want and have to do.
- Health professionals must look beyond impairment to also consider the plethora of environmental factors that influence both management of the impairment and participation in everyday life.
- Health professionals should consider the impact of time when working with clients and their families to develop healthcare plans (eg NDIS access reports).
- The knowledge of biopsychosocial frameworks (including the WHO ICF, the F-words and the constraints model) will allow for best practice in utilising funding structures including, but not limited to, the NDIS.

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