

Using operative models (ICF and CBR) within an interprofessional context to address community needs

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Background. The use of conceptual frameworks has been advocated when implementing interprofessional initiatives.

Objective. To present the use of the International Classification of Functioning Disability and Health (ICF) and the community-based rehabilitation (CBR) matrix for identifying and addressing the health needs of the community.

Methods. The ICF care plan and the CBR matrix were used to conduct a retrospective document analysis. The documents were completed by interprofessional groups of students who were involved in an interprofessional community-based intervention. Data were captured on a sheet and analysed descriptively using the domains of the ICF and the CBR matrix. Ethical clearance was obtained from the University of the Western Cape, Cape Town, South Africa.

Results. A total of 30 senior nursing, physiotherapy and biokinetics students were divided into groups and interacted with five community-based groups. Each group of students completed one ICF care plan and one CBR matrix. The needs documented in the ICF care plans included impairments, activity limitations, participation restrictions and environmental challenges. Impairments included sensory, motor and psychological impairments, while activity limitations included limitations in activities of daily living and mobility. Limited social interaction and physical environment were identified as experienced environmental challenges. The interventions documented to address these needs included health promotion, prevention, medical care, skills development and facilitation of access to justice.

Conclusion. The ICF and CBR matrix can be used to facilitate students' identification of the needs of communities and the implementation of interventions to address these needs in an interprofessional manner.

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Identifying educational strategies to assess and address the health needs of communities is a high priority, both nationally and internationally.^[1] Clinical training of healthcare professionals occurs in different settings using different learning strategies and activities. One such setting is the community, as community-based education (CBE). According to Villani and Atkins,^[2] 'CBE is centred on the student's ability to recognise and support the needs of the surrounding community. In this way, students become accountable for providing values which stem from their freedom to express, develop, and solve the inherent problems or concerns they have for their community.' Community members, lecturers and individuals from different sectors are all involved in this learning process, which is primarily based on the needs of the community. As interprofessional education (IPE) occurs among students from more than one profession,^[3] interprofessional CBE could be considered as an educational approach, where learning strongly occurs within communities and with consideration of the needs of communities, with two or more professional groups of students. When implementing community-based IPE initiatives, the use of frameworks has been found beneficial^[4,5] and may facilitate the development of IPE competencies such as communication and student learning.^[6]

In the context of IPE, the International Classification of Functioning, Disability and Health (ICF) may assist students in identifying the needs or challenges experienced by individuals and communities.^[7] The ICF^[8] conceptualises functioning in terms of activities and participation, and considers contextual factors, such as environmental and personal factors. The ICF can therefore be used as a tool to assess functioning.^[8] Community-based rehabilitation (CBR), which is encompassed within community

development, facilitates the rehabilitation, equalisation of opportunities and social inclusion of persons with disabilities, and can be used to address the needs of communities. The CBR matrix provides a visual illustration of CBR and consists of five components (health, education, livelihood, social and empowerment), each consisting of five elements. The elements of the different components are as follows: health – prevention, promotion, medical care, rehabilitation and assistive devices; education – early childhood, primary, secondary and higher, non-formal and life-long learning; livelihood – skills development, self-employment, financial services, wage employment and social protection; social – relationships, marriage and family, personal assistance, culture and arts, recreation, leisure and sports, and access to justice; and empowerment – communication, social mobilisation, political participation, self-help groups and disabled people's organisations.^[5]

This short report highlights how a group of interprofessional students can collaboratively identify the needs of individuals and community-based groups using the ICF, and also highlights possible interventions conceptualised within the CBR matrix.

Methods

The study sample consisted of a convenient cohort of 30 students from the Departments of Physiotherapy, Nursing and Biokinetics at the University of the Western Cape (UWC), Cape Town, South Africa, who participated in an IPE activity while rotating through a community-based clinical practice placement in 2013. As part of the activity, the students were placed in groups, and engaged with specific community-based organisations (CBOs). The CBOs consisted of a day-care centre for children without disabilities,

Table 1. ICF domains, CBR domains and CBR elements

CBO/group	Needs of CBO/group	ICF domains	CBR component (CBR elements)
		Assessment	Intervention
Day-care centre for children without disabilities	Developmental screening Stimulation of children	Impairments	Health
		None identified	Promotion
		Activity limitations	Prevention
		None identified	Medical care
		Participation restrictions	Education
		None identified	Early childhood
		Environmental factors	Livelihoods
		Facilitators	Skills development
		Supportive principal and family	
		Barriers	
		Physical environmental – limited space	
		Attitudinal	
		Limited space and unfriendly (space and location)	
Day-care centre for children with disabilities	Constant care of children Increased resources Qualified staff	Impairments	Health
		Sensory	Promotion
		Motor	Prevention
		Psychological	Rehabilitation
		Activity limitations	Education
		Limitations in activities of daily living and mobility	Primary
		Participation restrictions	Life-long learning
		Limited social interaction	Livelihoods
		Environmental factors	Skills development
		Barriers	Social
		Recreation	
		Leisure	
		Sport	
		Personal assistance	
		Empowerment	
		Communication	
Frail-care centre (carers)	Understanding conditions of the elderly Training	Impairments	Health
		None	Promotion
		Activity limitations	Prevention
		None	Empowerment
		Participation restrictions	Communication
		None	
Home-based carers	Access to information Access to health professional team	Environmental factors	
		Barriers	
		Caregiver knowledge of conditions	
		Impairments	Health
		None	Promotion
		Activity limitations	Prevention
		None	Education
		Participation restrictions	Life-long learning
		None	Skills development
		Environmental factors	Livelihoods
Facilitators	Self-employment		
Building	Social		
Barriers	Culture and arts		
Language	Empowerment		
	Access to justice		

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a day-care centre for children with disabilities, a frail-care centre, a home-based care organisation, and a community-based skills development group. The students used the ICF care plan^[9] to document the needs of individuals

who were part of these organisations. Additionally, the students indicated on the CBR matrix which components and elements were relevant when addressing the identified needs. A document analysis was, therefore, used

Table 1. (continued) ICF domains, CBR domains and CBR elements

CBO/group	Needs of CBO/group	ICF domains	CBR component (CBR elements)
		Assessment	Intervention
Skills development group	Financial support Biokinetics input	Impairments	Health
		Blindness	Promotion
		Muscle pain	Prevention
		Activity limitations	Medical care
		None	Education
		Participation restrictions	Life-long learning
		None	Skills development
		Environmental factors	Livelihoods
		Barriers	Self-employment
		Language	Social
		Financial	Culture and arts
		Transport	Empowerment
			Access to justice

to determine both the identified community needs and the interventions suggested by the students. The documents were reviewed by one of the authors (AR) and peer reviewed by another author (JF). The information collected from the documents was captured on a data sheet. Captured data included the CBO needs of the organisations, the ICF domains, the CBR domains and the CBR elements. Names of students and institutions were not identified during the analysis and presentation of the data. Ethical clearance was obtained from UWC (ethics No. 13/3/9).

Results

The sample of 30 students consisted of 22 nursing, 4 physiotherapy and 4 biokinetics students who had the opportunity to collectively interact with five different community-based groups. When documenting the needs according to the ICF, the students identified mainly environmental barriers experienced by the organisations or groups. Within the context of the CBR matrix, the students highlighted a need for access to justice for the home-based care group that was not documented for the other community-based groups. The ICF domains, CBR domains and CBR elements, as documented by the students, are presented in Table 1.

Discussion

The use of frameworks and models is recommended to facilitate student interaction regarding management during IPE initiatives.^[6] The ICF and CBR matrix, both developed by the World Health Organization, are two such models. These frameworks were used to facilitate the students' identification of community needs and the suggested interventions to address these needs.

When contextualised within the ICF, the students identified limitations that went beyond identification of impairments. Environmental barriers, which included a lack of physical space and finances, were identified. Lack of skills and social interaction was also highlighted a limitation.^[8] To address these challenges, the students highlighted the need for life-long learning, skills development and the facilitation of access to justice.^[4]

Conclusion

The ICF and CBR matrix can be used to facilitate students' identification of the needs of communities and the implementation of interventions that are appropriately based on these needs, in an interprofessional manner.

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