

## Engaging with clinicians to implement and evaluate the ICF in neurorehabilitation practice

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### **Abstract**

Although deemed a globally accepted framework, there remains scarce evidence on the process and outcome of implementing the International Classification of Functioning, Disability and Health (ICF) within neurorehabilitation. This review briefly explores the existing, broader literature then reports on two action research projects, undertaken in England, specifically within stroke and neurorehabilitation. Working with participants, including clinicians from in-patient and community settings, patients and their families, there are now 35 different ways identified for the use of the ICF. The outcome of the first project highlights that using the ICF enhances communication within and beyond the acute stroke service; fosters holistic thinking and clarifies team roles. To adopt it into practice, the ICF must be adapted to meet local service needs. The use of action research has facilitated the knowledge translation process which has enabled the ICF to become a clinical reality in neurorehabilitation.

### **Background**

The International Classification of Functioning, Disability and Health (ICF: World Health Organisation [WHO], 2001) has been endorsed for use by multidisciplinary teams to aid communication within stroke care (Intercollegiate Stroke Working Party [ISWP], 2012) although endorsement does not necessarily guarantee its use within the clinical setting. Yet, the success of the ICF depends on its uptake in clinical practice (Geyh et al., 2004). A procedural manual and guide for standardised application of the ICF has been developed to assist practitioners (WHO, 2013), but

this process has identified problematic areas within the ICF; in particular, the overlap of some of the codes and qualifiers as well as difficulties distinguishing between activities and participation (Reed et al., 2005).

A comprehensive literature review in 2009 concluded that the ICF was a globally accepted framework (Jelsma, 2009), yet the majority of the articles in the review focused on explaining the conceptual framework or applying it to the management of data collection, rather than using it in clinical practice with healthcare professionals and multidisciplinary teams. In 2011, a systematic review also concluded the majority of the 670 ICF papers examined were conceptual in nature (Cerniauskaite et al., 2011). Nonetheless, 173 papers focused on using it in clinical practice but these were mainly anecdotal reflections, or applying it in theory. The main conclusions from the clinically focused papers were that the ICF has the potential to improve team communication (e.g. Rentsch et al., 2003; Steiner et al., 2002); enhance inter-agency communication (e.g. Martinuzzi et al., 2008; Darzins, Fone and Darzins, 2006); help clinicians construct a broader view of disability (e.g. O'Donovan, Doyle and Gallagher, 2009; Raggi, Leonardi, Cabello and Bickenback, 2010) and clarify team roles (Tempest and McIntyre, 2006; Mitchell, 2008).

None of the papers from the two reviews engaged, in a systematic manner, with neurorehabilitation clinicians in order to identify the process and outcome of the implementation process. Yet, clinicians still need to be convinced of the worth of investing time and finances into adopting the ICF into practice (Farrell, Anderson, Hewitt, Livingston and Stewart, 2007) partly, as they may lack in-depth knowledge and experience in using the framework (Farrell et al. 2007; Heinen, van Achterberg, Roodbol and Frederiks, 2005).

Empirical evidence regarding the process of implementing the ICF in practice is scarce (Verhoef, Toussaint, Putter, Zwetsloot-Schonk and Vliet Vlieland, 2008). Explicit use of change management theory has been suggested (Appleby and Tempest, 2006) and training programmes have been established, which are considered an effective way to teach health and social care professionals about the ICF (Francescutti, Martinuzzi, Leonardi and Kostanjsek, 2009; Bjorck-Akesson et al., 2010). However, the challenge of understanding the benefits of training is that it

remains unclear if the ICF subsequently transfers into the clinical setting (Francescutti et al., 2009).

There is also scarce empirical evidence on the outcome of implementing the ICF into clinical practice. However, a study of two multidisciplinary teams in rheumatology (Verhoef et al., 2008) concluded that health care professionals held mixed opinions on the benefit of the implementation of the ICF. While staff satisfaction with team conferences increased in a day-patient setting, this effect was absent with staff in an inpatient setting. This study offers an insight, into staff perceptions, on the use of the ICF in clinical practice but, as the data was quantitative in nature, it is not known why staff held these opinions. Furthermore, the opinions from patients, carers and those beyond the multidisciplinary teams were not sought and these could have enhanced a fuller understanding of the outcomes. The research team concluded that the outcome of introducing ICF-based tools should be studied at the level of individual teams, to gain a greater understanding of the effects of using it in practice (Verhoef et al., 2008).

Therefore, despite the general endorsement and acknowledgement of the potential use of the ICF in clinical practice (Cerniauskaite et al., 2011) there has been no systematic attempt to explain or evaluate the means by which it can be implemented. There has been only one paper (Verhoef et al., 2008), using quantitative data to measure the outcome of so doing, which sought to assess staff satisfaction with the ICF, however this was in the field of rheumatology and not neurorehabilitation. These were some of the drivers for the body of action research currently being undertaken in England.

### **Using action research to evaluate the process and outcome of implementing the ICF within neurorehabilitation in England.**

The first action research project, working with participants from one acute stroke team and its associated stakeholders, identified 15 different ways the ICF would benefit their service (detailed in Tempest, Harries, Kilbride, and De Souza, 2013). They chose to focus on developing an ICF-based transfer of care report, with an ICF glossary (using the detail from the core set for stroke) to aid its completion. On reviewing the outcome from the project, it was concluded that the use of the ICF

enhanced communication within and beyond the stroke team; aided holistic thinking and helped to clarify team roles (Tempest et al 2013). However, in order to implement it into practice, the participants (including the multidisciplinary stroke team; patients; their families; and community neurorehabilitation colleagues) needed to adapt some of the language and adopt it in a way that met their local needs (Tempest, Harries, Kilbride and De Souza, 2012). To clarify, because the ICF is endorsed by the WHO and the National Clinical Guidelines for Stroke (ISWP 2012) it became a vehicle to drive through a change previously desired, i.e. a transfer of care report, which had not been formerly achieved by the participants.

On reflecting upon the experience, participants in the first project shared their experiences in the form of recommendations for others wanting to implement the ICF (see Table 1).

INSERT TABLE 1 HERE

On sharing the experiences a second project was developed, this time, with participants in a different community neurorehabilitation team. Working with the same action research approach (see Tempest et al 2012), the second author of this paper worked with participants to review the 15 original suggestions and identify additional ways to implement the ICF within neurorehabilitation. This resulted in an overall total of 35 possible ways to utilise the ICF, within this field (see Table 2).

INSERT TABLE 2 HERE

Many of these ideas resonate with those postulated in the literature. The key point here is that these ideas have been identified by those working specifically within neurorehabilitation and, in so doing, the action research approach has enabled them to learn more about the potential for the ICF while implementing it at the same time.

Following the process of exploring potential uses for the ICF, the participants in the second project selected its use 'to explore using the ICF for clinical reasoning within an interprofessional team'. Full analysis of the data from the second action research project is currently underway although preliminary findings suggest a pragmatic

approach to its use, dependent on factors such as: the complexity of the patient; the (perceived) demands on the team or individual clinician; the clinicians depth of knowledge (of the ICF) and; the perceived complexity of the ICF. These impressions broadly reflect those expressed by Farrell et al. (2007).

### **Conclusion and clinical implications**

The evidence on the process and outcome of implementing the ICF within neurorehabilitation practice is scarce. Now there are 35 different ways, identified by neurorehabilitation clinicians, for the potential use of the ICF in clinical practice. The implications for practice are that: 1) using an action research approach offers support for clinicians to learn and think about the ICF whilst implementing it at the same time; 2) clinicians, working in neurorehabilitation, can identify many ways for the uptake of the ICF into their practice; and 3) reflecting on the process of ICF implementation, there are now recommendations and pragmatic suggestions for other neurorehabilitation teams wanting to do the same.

Finally, when identifying the key learning from the outcome of developing ICF based clinical tools, it has been determined that the ICF enhances clarity and holism and aids holistic thinking. But in order to adopt the theory into practice it must be adapted to meet the local service needs. Using an action research approach has enabled the theoretical framework and classification to become a clinical reality within neurorehabilitation.

### **Future research**

The first two projects detailed here explored the use of the ICF to develop a transfer of care report and a clinical reasoning tool. Future research could explore the process and outcome of implementing the ICF for the other ways identified in Table Two. Both projects involved one action researcher working with one team at a time, thereby resource intensive. Future action research projects could explore the effectiveness of different models of practice including facilitating a number of teams who work and explore the issues together across different clinical settings.

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*Table 1. Recommendations for other people wanting to introduce the ICF into their own clinical setting from the reflective focus group and interviews*

Be prepared to pilot, pilot, pilot!

Don't worry about just having a go – you can change things from doing this.

Pick projects that are practical and the majority of people would like to change in your team.

Have one person to facilitate the project, e.g. a stroke coordinator, although an external person is better as they avoid the day to day politics and often see something with fresh eyes.

Be prepared that the project will take time.

Share what you are doing with everyone in the team – even if they don't want a big role.

Share what you are doing with people outside of the team – external feedback is useful and can also be motivating and nice.

Expect peaks and troughs throughout the project.

Don't give up if you run into problems – find a way around them.

At the start, do a team analysis of the potential driving forces and restraining forces that may occur during the project – embrace the positives and think about ways to manage the negatives.

<i>Table Two: Ways the ICF could be used in neurorehabilitation as identified by clinicians</i>	
1.	Use as a structure for a multidisciplinary assessment form
2.	Use as a structure for goal setting
3.	As a framework for clinical reasoning when assessing
4.	As a template to streamline all documentation
5.	To use as a structure for a multidisciplinary discharge report
6.	As a common language within the MDT notes
7.	To provide a direct link between issues identified on assessment and goal setting
8.	As a communication tool to use with clients about the purpose of rehabilitation, their goals and intervention plan
9.	To foster a cohesive and consistent method of communication between teams and agencies
10.	To define the remit of the overall service and individual teams within the service for commissioners, those referring and those within the team
11.	To communicate a patient's rehabilitation status and needs when referring on
12.	As a flow chart to guide clinical decision making
13.	As a guide to outcome measurement selection
14.	To enhance training for goal setting
15.	To structure and record multidisciplinary meetings e.g. ward round
16.	To ensure all potential areas of rehabilitation have been considered
17.	As a standard format for presenting clients to other professions e.g. in supervision
18.	To identify unmet needs in the current service provision and target service development areas within and across teams
19.	Using the ICF structures / headings as a marketing tool because it is evidence based, internationally endorsed and aligned with best practice i.e. not a home-grown tool!
20.	To use the ICF framework and classification as a structure for in-service training and CPD
21.	To use as a structure to identify areas for care planning
22.	To structure an induction booklet for new staff and students
23.	As a guide for the dutying system so the person on duty knows which profession to refer to
24.	As a guide for prioritising within the dutying system
25.	As a structure for a risk assessment and strategies for managing risk
26.	To use the ICF framework and classification as a structure for developing competencies
27.	As a ready reference in the front of the MDT notes
28.	As a structure for a risk assessment and strategies for managing risk
29.	As a checklist to structure the care booklets (transfer information from one organisation to another)
30.	As a framework to explain how the services interface to meet the client's needs
31.	As a guide for the dutying system so the person on duty knows when a referral is not for the specific service
32.	As a guide for the duty system so the person on duty know who the referral should be for if it is not for the specific service
33.	To identify and communicate which member of the team leads or is involved in different areas of care, as outlined by the ICF headings
34.	As a pocket guide for staff to use as a ready reference
35.	As a guide to skill mix when establishing teams