J Rehabil Med 2007; 39: 736

LETTER TO THE EDITOR

COMMENTARY ON THE SPECIAL ISSUE BY GRIMBY, MELVIN AND STUCKI, 2007

The authors of this Special Issue of the *Journal of Rehabilitation Medicine* (1) have presented a comprehensive view of an integrated model of research related to human functioning and rehabilitation that incorporates both conceptual and operational elements. They should be congratulated for adding to the intellectual discussion of these topics. However, their papers do not sufficiently address the difficulties presented when operationalizing broad concepts. This letter explores the utility of the ideas expressed in this Special Issue. In general, we should encourage initiatives such as the ICF implementing research standards that can encourage transdisciplinary collaboration among scientists by facilitating electronic acquisition, exchange, analysis and reporting of data. Common data elements, dictionaries and a lexicon shared by diverse professionals can translate into more rapid and easier integration of people with disabilities into non-institutional environments. However, as is evident from the papers, devising data standards such as the ICF appears to be easier than creating a comprehensive biopsychosocial model of "human functioning, disability and health" that can span a variety of sciences, professions and units of analysis (cell to society) to guide various research questions, agenda or domains.

This difficulty is evident from the aims as stated in "Paper 3: "The specific aims are (*i*) to identify generally acceptable distinctions for the organization of rehabilitation and related research; (*ii*) to develop a structure based on these distinctions; and (*iii*) to identify the distinct scientific fields according to this structure" (2). This appears to be circular reasoning; first, distinctions are identified, then, structures are created based on the distinctions, and next, distinctions are defined based on the structures. Hence, one wonders whether the aims can be achieved.

Another example is the bidirectional arrows in Fig. 1, which appear to bind the 5 distinct scientific fields as an integrated model (2). The authors state in the legend that the arrows "indicate communication of scientific knowledge" among the distinct scientific fields. While communication helps move the separate sciences forward, it is not clear how it links them together into common research agendas. For instance, phase I to phase IV clinical trials are linked because they involve a common investigational compound.

In general, one wonders if it is in fact productive to blend the 5 sciences under a common integrated umbrella. Perhaps it is better to celebrate the sciences as they provide their own, unique complete answers to specific research questions that stem from issues, questions and concerns in applied rehabilitation. Instead of postulating human functioning and rehabilitation as an exoskeleton that binds the sciences, why not view the field as an endoskeleton that needs to strengthen and advance within each science in order to work with the establishment from within instead of trying to change it?

According to the National Institute on Disability and Rehabilitation Research (NIDRR) *Long-range plan 1999–2003, the contextual paradigm of disability* frames their research agenda: "disability is a product of an interaction between characteristics of the individual (e.g. conditions or impairments, functional status, or personal and social qualities) and the characteristics of the natural, built, cultural, and social environments" (3, p. 2). A research agenda that can improve the "interaction" between persons with disabilities and their surroundings is vital, but no doubt the agenda depends on effective "interaction" among scientists, as well; it would be surprising to find a scientist who is an expert in both psychology (individuals) and anthropology (environment).

Implementing a unified concept across basic, applied and professional sciences risks obscuring the specific scientific rigor and expertise required for validity in each of these categories. Investigators migrating from one focus to another without sufficient preparation could weaken the ability to produce meaningful research. A "Jack of all trades but master of none" approach will be inadequate for producing cutting edge research on living well with disability. Stucki et al. (4) (Part II) state that "Human functioning sciences must develop a wide range of instruments for clinical practice, clinical trials and outcomes studies, health sciences and quality of life studies, as well as international surveys". While I concur, it seems better to promote and support the development of the instruments within the already well-established fields, rather than building a new field around the effort.

The research in Reinhardt et al. (5) "Part III: Scientific journals" is interesting. They identified societies, conferences and journals that either directly or indirectly support rehabilitation research. However, instead of trying to assimilate this collection into a new Human Functioning and Rehabilitation Research concept, it would be better to encourage the societies to promote and engage in more research on disabilities, in particular those societies that do not have obvious connections to rehabilitation in their journal titles.

REFERENCES

1. Grimby G, Melvin J, Stucki G. The ICF: A unifying model for the conceptualization, organization and development of human functioning and rehabilitation research. J Rehabil Med 2007: 39: 273-342.
2. Stucki G, Grimby G. Organizing human functioning and rehabilitation research into distinct scientific fields. Part I: developing a comprehensive structure from the cell to society. J Rehabil Med 2007; 39: 293–298.
3. US Department of Education, Office of Special Education and Rehabilitative Services. National Institute on Disability and Rehabilitation Research, Long-range plan 1999–2003. Washington D.D. GPO. 2000. Available from: http://www.ed.gov/rschstat/research/pubs/nidrr-lrp-99-03.pdf. Accessed on August 22, 2007.
4. Stucki G. Reinhardt JD, Grimby G. Organizing human functioning and rehabilitation research into distinct scientific fields. Part II: conceptual descriptions and domains for research. J Rehabil Med 2007; 39: 299–307.
5. Reinhardt JD, Hofer P, Arenz S, Stucki G. Organizing human functioning and rehabilitation research into distinct scientific fields. Part III: scientific journals. J Rehabil Med 2007; 39: 308–322.

Joel A. DeLisa, MD, MS
Department of PM&R, UMDNJ – New Jersey Medical School;
Kessler Medical Rehabilitation Research and Education Center

 ISSN 1650-1977
doi: 10.2340/16501977-0132