Disability and Rehabilitation

ISSN: 0963-8288 (Print) 1464-5165 (Online) Journal homepage: https://www.tandfonline.com/loi/idre20

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To cite this article: Stephen A. Buetow, Narinder Kapur & Gregor Wolbring (2019): From rehabilitation to ultrabilitation: moving forward, Disability and Rehabilitation, DOI: 10.1080/09638288.2019.1620873

To link to this article: https://doi.org/10.1080/09638288.2019.1620873

Published online: 28 May 2019.

DISABILITY AND REHABILITATION
https://doi.org/10.1080/09638288.2019.1620873

Taylor & Francis
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EDITORIAL

From rehabilitation to ultrabilitation: moving forward

The term, "rehabilitation", is contested in meaning and continues to require clarification. Key definitions of rehabilitation refer to helping persons with a disability to achieve states such as "optimal functioning" [1]. However, optimal functioning tends not to be explicitly defined. Implicitly, it tends to be equated with goals such as "restoring and compensating for the loss of functioning" [2]. Consistent with the etymology of rehabilitation, which integrates "*re*", again, and "*habitare*", make fit, this tendency reduces optimal functioning to recovery, as the dominant narrative across health care in Western modernity [3]. Recovery can range from partial to complete reinstatement or substitution of function [4].

Rehabilitation further supports persons to regain and maximize as much "independence" as possible [5], whereby the term "independence" is mostly used to mean self-sufficiency, an ability to do something successfully oneself. Yet, independence is better described relationally as about self-determination in social life where everyone is interdependent and, in that context, able to flourish.

The key point here is that such understanding of the scope of rehabilitation arises from the common portrayal of disability as a deficit to repair [6] by returning to, and maintaining, baseline levels of functioning to the greatest extent possible. These levels indicate the range considered normal for people in their particular situation [2,7]. This normative focus on recovery and restoration is problematic [8].

Some persons do not view their "disability" as a deficiency that restricts what they can do and that requires recovery. Instead, they may regard their so-called disability as something that a normalizing discourse "adds on" to an impairment. For other persons, goals such as maximizing recovery and independence -can be insufficiently ambitious. These goals can reduce expectations of persons living with a disability to create their life anew by building on strengths [9], and can stall their quest to flourish [10] and become all that they can be [8,11,12].

The last situation can arise from questioning the limiting assumption that reclaiming normalcy is the most that – or more than what – some persons with disabilities can accomplish. To seek to move *back* to functioning at levels that are as normal as possible might be constraining in not realizing the full potential of persons with disability. A barrier to moving forward is that, despite different understandings of rehabilitation, key stakeholders such as professional colleges tend in our experience to question the need for further revision. They reject the premise that rehabilitation practice typically emphasizes a return to normality and eschew debate about this difference of interpretation.

From our perspective, such avoidance comes across as imperious, and invites conflict [13]. Although rehabilitation practices sometimes do look beyond recovery of bodily functioning, the restitution narrative persists in modern health care. And 'recovery' is a misleading word for rehabilitation professionals to keep using if their intention is to signal clearly a care pathway that enables persons to flourish rather than necessarily seek to reappropriate a former level of functioning consistent with the species-typical [14].

A better term in some situations is "post-traumatic growth" [15] but it incompletely describes flourishing in the face of challenges posed by disability. One reason that post-traumatic growth is incomplete is that, in focusing on positive psychological change "not merely [to] return to pretraumatic levels of functioning" but also accomplish "higher states of functioning than existed before the trauma or disability onset" [16], it still tends to focus on bodily functioning rather than flourishing by persons who are capable of becoming better persons because of, and through, their experience of trauma. Other reasons are that post-traumatic growth does not describe the experience of persons who grow (or not) through living with disability that is not traumatizing or that is more than inherently traumatic in social contexts beyond embodied dysfunction [17]. In common with terms like "pro-rehabilitation" [18] and "enhancement rehabilitation" [19], post-traumatic growth also focuses on growth occurring *after* an injury rather than on mental agility at different stages of a disability, in meaningfully managing mixed emotions and other challenges [20]. For example "prehabilitation" involves baseline training to protect persons against impending stresses such as elective surgery [21]. A possible solution is "ultrabilitation" [8].

Ultrabilitation expands the scope of rehabilitation. Taking place before, during or after injury from disability, trauma or both, the concept of ultrabilitation could help to bridge disability studies and trauma studies [22]. Potentially contributing to a shared conceptual vocabulary, it connects these fields by reaching across and challenging standard delineations of what is normal or pathological. It focuses on persons, rather than disability or trauma, as embodied beings capable of resisting normalizing discourses and flourishing amid disability or trauma.

In the context of health care as an intersubjective practice, human "flourishing" is defined here as non-pathologizing, subjective growth, of which persons with a disability are as capable as other persons [23]. Growth takes place through persons actualizing opportunities to become everything they can be in their life [7]. Their flourishing could be manifest in experience of happiness (positive affect) or emphasize adroitness over relentless positivity [24]. Such mental agility could be evident in their development of critical insight and feelings of personal significance (associated with finding meaning and purpose) and in the cultivation of virtues as stable traits of good character. Flourishing could also vary in form.

Flourishing could take place toward, around or beyond recovery. Less simplistically, flourishing could fluctuate over time but nevertheless indicate a positive balance process when the net movement in health and well-being is upward. Moreover, growth in one dimension of health could coincide with simultaneous stagnation on another dimension.

It follows that ultrabilitation appears to be a vehicle capable of traveling these pathways. It enables persons – in journeying – to grow through living with states like disability or trauma. This growth resembles the Japanese art of *kintsugi*, which demonstrates how repair of what is damaged or disabled can be "not to its original self but rather to something stronger, more beautiful and more valued and appreciated through having been broken

and visibly mended" [25]. "Bioenhancement" may objectively contribute to this subjective growth.

Compared with flourishing, bioenhancement produces measurable gains that can objectively expand instrumentally or intrinsically valued human capacities beyond biological norms. Whereas the discourse on enhancement has been typically restricted to able-bodied persons without disability or medical need [8], ultrabilitation accommodates flourishing, with or without enhancement, by persons with disabilities. Thus, bioenhancement for ultrabilitation includes therapy to reestablish or exceed normal levels of functioning that conform to social mores. Without becoming the norm, it constructs personal difference as a potentially positive phenomenon and is conducive to living in ways that develop personal identity.

This Special Issue on ultrabilitation aims to understand better the expanding capacity of rehabilitation services to help persons living with disabilities to flourish purposefully toward – or as an adjunct to – recovery; achieve objective enhancement beyond normal human abilities; or accomplish both goals. It addresses this aim from disciplines including community rehabilitation, physical therapy and disability studies. However, it also looks beyond them, for example toward medical humanities and the vocabulary of psychology, because "innovation and creativity have more often come from 'outsiders' than from 'inside institutions'" [26]. To this end, it brings together invited studies of new tools and models for rehabilitation to positively transform usual care.

Stephen Buetow and colleagues have previously identified biological, psychosocial and technological conditions for enabling ultrabilitation [8]. Three contributions to the Special Issue build on that framework. Wren Boehlen and Matthew Sample [27] discuss how the development of "restorative" and "assistive" technologies of brain-computer interfaces could expand within responsible innovation to include ultrabilitative functions. They suggest that a necessary precondition for this "re-imagining" of the current scope of rehabilitation is openness by rehabilitation professionals and potential beneficiaries to developing a compatible psychosocial environment, including a redesigned rehabilitation culture.

In relation to brain injury, London-based, consultant neuropsychologist, Narinder Kapur [28] then considers paradoxical recovery and paradoxical enhancement through three topics: post-traumatic growth, deliberately inducing perceptual illusions as therapeutic tools to improve function, and late or exceptional recovery from a severe brain insult. Through facilitating resilience, flourishing and enhancement adjustment, these topics harmonize with the focus of ultrabilitation and the emerging field of positive neuropsychology. In turn, Buetow [29] elaborates on psychological preconditions for ultrabilitation.

He seeks to develop understanding of the new concept of ultrabilitation by conceptualizing it as a pathway to personal flourishing. This pathway promotes a range of psychological states or conditions. Buetow suggests a framework of seven interrelated conditions: apprehension; appetite; "attitude"; ambiguity; autonomy; accountability and ambiopia. He discusses how these conditions could contribute to flourishing, and suggests practical approaches to their development and use. Writing from Harvard University, Yusuf Lenfest, Omar Sultan Haque and John Peteet [30] progress this pragmatic perspective by discussing how different "fourth-wave psychotherapies" support a flourishing model of ultrabilitation. To expand psychological goals that "are often pessimistically narrow, or phenomenologically shallow" [30], these psychotherapies include contemplative, narrative-based and meaning-centred approaches among others to support patient flourishing independent or complementary to improvement.

A health care setting where these ideas are relevant is occupational health and rehabilitation. For persons with disabilities, Canadian ability studies scholars – Manel Djebrouni and Gregor Wolbring [31] – focus on occupation as a topic influencing human flourishing; on the impact of robotics and human enhancement on occupational opportunities; and on the value of existing rehabilitation practices for occupational satisfaction. Their systematic review reports that the academic literature is yet to engage with occupational challenges posed by robotics and human enhancement, both for persons with disabilities and for their rehabilitation in clinical and community settings. To close this gap they advocate countering negative occupational impacts of robotics and human enhancement on flourishing with disabilities.

From the University of Toronto, Barbara Gibson and her Canadian, Australian and New Zealand colleagues, Gareth Terry, Jenny Setchell, Felicity Bright, Christine Cummins and Nicola Kayes [32], move forward the debate on the aims and delivery of rehabilitation. To consider how flourishing through good rehabilitation can be coproduced, these authors construct rehabilitative practice as micro-acts of person-centred care (PCC). Consistent with critiques of the normalizing tendencies of recovery-oriented rehabilitation, their post-critical, empirical analysis of nine care events reveals three main forces: 'scripts mediate practice, securing compliance through "benevolent manipulations", and care(ful) tinkering'. The last force is useful in continually questioning what constitutes best practice within each moment of everyday rehabilitation, rather than in advance. The authors state that, "We can label this as PCC, or ultrabilitation' within the general logic of the fluid assemblages of heterogeneous elements, this multiplicity signifying the appropriate locus for analyzing and managing social complexity.

Much more research is needed, especially of an empirical kind, to validate and develop the concept of ultrabilitation. There is also a need to listen and respond to critics. However, the papers in this Special Issue provide a solid base from which to conduct such work, with a view to working together to improve understanding and management of rehabilitation science, practice and policy.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

[1] World Health Organization (WHO). Rehabilitation in health systems. Geneva: WHO; 2017. Report nr Licence: CC BY-NC-SA 3.0 IGO.
[2] World Health Organization. World report on disability [WHO update]. [Internet]; c2017 [cited 2017 Oct 27]. Available from: http://www.who.int/disabilities/world_report/2011/en/
[3] Frank A. The wounded storyteller: Body, illness and ethics. Chicago: University of Chicago; 1995.
[4] Wilson B. Brain injury: recovery and rehabilitation. Wiley Interdiscip Rev Cogn Sci. 2010;1:108–118.
[5] Convention on the Rights of Persons with Disabilities: Resolution. Adopted by the General Assembly, 24 January 2007, A/RES/61/106 [Internet]; c2006 [cited 2017 Jul 20]. Available from: http://www.refworld.org/docid/45f973632.html.
[6] Dinishak J. The deficit view and its critics. Disab Stud Q. 2016;36. dsq-sds.org/article/view/5236

[7] Stucki G, Rauch A. The International Classification of Functioning, Disability and Health (ICF), a unifying model for physical and rehabilitation medicine. In: Didier J-P, Bigand E, editors. Rethinking physical and rehabilitation medicine. Paris: Springer; 2010.
[8] Buetow SA, Martínez-Martín P, McCormack B. Ultrabilitation: beyond recovery-oriented rehabilitation. Disab Rehab. 2019;41:740–745.
[9] Rapp CA, Goscha R. The strengths model: a recovery-oriented approach to mental health services. Oxford: Oxford University Press; 2012.
[10] Smith C. To flourish or destruct. Chicago: University of Chicago Press; 2015.
[11] O'Leary VE. Strength in the face of adversity: individual and social thriving. J Soc Issues. 1998;54:425–446.
[12] Wolbring G, Martin A, Tynedal J, et al. Exploring discourse surrounding therapeutic enhancement of veterans and soldiers with injuries. Work 2015;50:149–160.
[13] Buetow S. Beyond evidence-based medicine: bridge-building a medicine of meaning. J Eval Clin Pract. 2002;8:103–108.
[14] Barker P. The tidal model: Psychiatric colonization, recovery and the paradigm shift in mental health care. Int J Ment Health Nurs. 2003;12:96–102.
[15] Calhoun L, Tedeschi R, editors. Handbook of posttraumatic growth. New York: Psychology Press; 2014.
[16] Claudio P, Geyh S, Ehde S, et al. Chapter 27. Positive psychology in rehabilitation psychology research and practice. In: S. Joseph, editor. Positive psychology in practice: promoting human flourishing in work, health, education, and everyday life. Hoboken, NJ: John Wiley and Sons; 2015.
[17] Morrison DR, Casper MJ. Intersections of disability studies and critical trauma studies: a provocation. Disab Stud Q. 2012;32. dsq-sds.org/article/view/3189
[18] Rotenberg M. The psychology of tzimtzum. Jerusalem: Maggid Books; 2015.
[19] Wolbring G. Therapeutic enhancements and the view of rehabilitation educators. Ilemata 2012;4:169–183.
[20] Berrios R, Totterdell P, Kellett S. When feeling mixed can be meaningful: The relation between mixed emotions and eudaimonic well-being. J Happiness Stud. 2018;19:841–861.
[21] Moran J, Guinan E, McCormick P, et al. The ability of prehabilitation to influence postoperative outcome after intra-abdominal operation: a systematic review and meta-analysis. Surgery 2016;160:1189–1201.
[22] Berger J. Trauma without disability, disability without trauma: a disciplinary divide. JAC 2004;24:563–582.
[23] Olkin R. What psychotherapists should know about disability. New York: Guilford Press; 1999.
[24] David S. Emotional agility. New York: Avery; 2016.
[25] Buetow S, Wallis K. The beauty in perfect imperfection. J Med Humanit. 2017. DOI:10.1007/s10912-017-9500-2.
[26] Frey J. Innovations in primary care: garage tinkerers and great deeds. Ann Fam Med. 2018;16:195–196.
[27] Boehlen W, Sample M. Rehabilitation culture and its impact on technology: unpacking practical conditions for ultrabilitation. Disab Rehab. 2019;1.
[28] Kapur N. Paradoxes in rehabilitation. Disab Rehab. 2019;1.
[29] Buetow S. Psychological preconditions for flourishing through ultrabilitation: a descriptive framework. Disab Rehab. 2019;1.
[30] Lenfest Y, Haque O, Peteet J. From disability to human flourishing: how fourth wave psychotherapies can help to reimagine rehabilitation and medicine as a whole. Disabil Rehabil (In press).
[31] Djebrouni M, Wolbring G. Impact of robotics and human enhancement on occupation: what does it mean for rehabilitation? Disab Rehab. 2019;1.
[32] Gibson B, Terry G, Setchell J, et al. The micro-politics of caring: tinkering with person-centred rehabilitation. Disab Rehab (In press).

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Received 25 March 2019; revised 2 April 2019; accepted 15 May 2019