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Rethinking Recovery: Incorporating Holistic Nursing Perspectives in Post-Stroke Care

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Abstract

Stroke is a life changing experience. Current treatments focus on treating the condition, rather than the whole person. The goal of this report is to communicate the benefits of a holistic approach to the treatment and recovery of stroke. Our intent is to begin a conversation to transform our approach to stroke care to focus on the whole person, body, mind and spirit.

Wellness approaches are fiscally responsible ways of providing holistic care for patients and their family members to help them achieve optimal individualized recovery. Very few multidimensional programs for wellness exist for stroke and brain injury patients. Given the changes in healthcare and the call to action set forth in the Institute of Medicine's 2010 report, it would behoove us to consider holistic approaches to stroke care and research programs.

Nurses are uniquely positioned to implement multidisciplinary, innovative holistic approaches to address solutions for issues in stroke care. Wellness is a critically important area of stroke care and an opportunity for research. As both patient advocates and nurses with personal experiences, we hope this commentary stimulates conversation around developing and testing multi-dimensional holistic programs of wellness for stroke prevention, treatment, and recovery.

Keywords

stroke recovery; clinical science; rehabilitation; wellness

Brief Description of the Challenge

Stroke, also known as cerebrovascular accident (CVA) can have lasting, debilitating effects. Although stroke mortality rates are declining, the incidence of stroke is steadily increasing,

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with a projected doubling by 2030 as Baby Boomers enter their older adult years.^{1, 2} Since more people are surviving their stroke, efforts to reduce stroke-related disability will become increasingly more important to offset the associated rise in medical costs. Few medical conditions are capable of drastically impacting everyday life alterations as an acute stroke, and therefore the current model of recovery primarily focuses on medical stabilization.

Although healthcare and research teams have addressed the physical implications of stroke, few initiatives have incorporated a holistic, individualized interdisciplinary perspective of post-stroke recovery and wellness care for survivors and their caregivers. The current healthcare model often leaves bewildered patients and their caregivers in a vulnerable position as they try to cope with the unfamiliar, multifaceted, and often isolating realities of post-stroke life. Once the patient has returned home, stroke patients and their families are often burdened by a complete restructuring of their daily lives. Therefore, it is imperative the healthcare team consider a broader model of care to optimize stroke recovery and wellness.

The Solution

Nurses are uniquely positioned to serve as patient advocates and interdisciplinary leaders in holistic stroke recovery and rehabilitation. In 2010, the National Institute of Medicine (IOM) and the Robert Wood Johnson Foundation (RWJF) released *The Future of Nursing: Leading Change, Advancing Health*, a report that outlined the important role of nurses in healthcare reform. Among other key messages, this report stated that nurses should be full, active partners in healthcare redesign in the United States.³ Community driven wellness models led by nurses are beginning to show their promise in helping to bring about healthcare reform.⁴ Because stroke affects nearly all parts of an affected individual's life, a holistic nursing model of wellness is a highly effective framework to restore patients to their highest levels of recovery. Utilizing a multidimensional (various aspects of wellness) guide to recovery and wellness centered on holistic nursing practice can empower patients to regain independence, function, and most importantly, wellbeing.^{5,6}

It is important to emphasize that the holistic nursing definition of wellness goes beyond the absence of disease—it is the recognition, cultivation, and integration of dynamic, multidimensional levels of satisfaction and an overall sense of peace in daily functioning. Promoting holistic wellness and improving post-stroke outcomes suggests that our healthcare system and its community must actively and consistently advocate for the empowerment and improvement of not only the patient, but also his or her social support system and environment. Stroke survivors may find that their previous approaches to well-being are now ineffectual, and nurses and other healthcare professionals can be invaluable partners in enabling them to find new balance in recovery.

There are multiple holistic wellness models that can be used to guide individualized programs of recovery for stroke and brain injured patients. The majority of these models have yet to be tested, and their reliability and validity have not been established. However, they still provide a foundation by which programs can be developed and tested. In 2014, the Commission on Accreditation of Rehabilitation Facilities (CARF) recommended the incorporation of holistic assessment of wellness during stroke rehabilitation.⁴ The CARF

recommendations are based on the Six Dimensions of Wellness, developed by Dr. Bill Hettler, co-founder of the National Wellness Institute (NWI), which evaluates the following domains: social, emotional, spiritual, occupational, intellectual and physical. The 7- and 8-dimension models include environmental and financial wellness.^{7,8} Each of these facets is affected after stroke but are frequently not evaluated by healthcare professionals. They are therefore subsequently unaddressed and lead to functional, psychological and emotional disturbances, especially in rural populations.⁹ These deficits will continue unless a member of the interdisciplinary care team proactively addresses these issues and advocates for the holistic wellbeing of the patient and his or her caregiver.

A holistic wellness approach to stroke recovery should focus on the person's readiness to change and be individualized to their personal wants and needs. Some facilities have been successful when they've applied this approach to the rehabilitation of stroke patients. An example worthy of further evaluation is the Madonna Wellness Questionnaire, which was developed using the CARF recommendations and followed by a Personal Wellness Plan with the intent of helping clinicians coach and guide the patient with development of their own individual plan.⁴ An example of activities that can be included in a personal wellness plan that accommodates each of the dimensions of wellness is provided in Table 1. It is important to note that this is not meant to be a standard plan, because the idea is to develop the personal wellness plan in conjunction with the patient. In this table, we offer ideas that support each of the dimensions, but there are numerous other possibilities. The most success is gained by focusing on one primary dimension until the patient is content in that area, then one can move to another dimension. Although we provide the above as examples, we aren't necessarily supporting any one particular wellness framework. Rather, we are advocating for the widespread use of reliable and valid wellness assessments and holistic personal wellness plans in stroke recovery so we can begin to build a body of evidence to make future clinical recommendations.

The holistic impacts of stroke largely occur outside of the providers' offices and outside of the realm of traditional medicine, and are also frequently missed during follow-up care visits. Even though recommendations have been set, the recovery or rehabilitation services and interventions to support holistic well-being following stroke are desperately needed, particularly in underserved areas. One of the most pressing issues in stroke recovery is the extent to which the survivors and their caregivers can adjust to the complex stroke-related impairments. Although multiple solutions to measure longer term stroke outcome have been proposed, such as tele-health and support groups, none of these models have been found to adequately address the daily struggles that often occur in stroke survivors.¹⁰

Although the post-stroke survivors' needs have been examined, these evaluations have lacked a holistic focus. A large study of post-stroke survivors found that 49% of participants reported unmet needs and identified an average of 3 unmet needs that continued to be problematic.¹¹ This study found that post-stroke survivors identified unmet needs that were inadequately managed including mobility (21%), falls (21%), pain (15%) and incontinence (21%). Furthermore, 39% of these participants reported that they experienced emotional problems following their stroke, with 42% reporting negative effects in their romantic relationships and 26% reporting negative effects in their family relationships. More than half

of the respondents desired more stroke education, including the causes of the event and the implementation of prevention strategies to minimize the risk of reoccurrence. From a fiscal perspective, over half of respondents reported changes in work activities, while 18% experienced a loss of income and 31% of respondents reported an increase in expenses. Lastly, a majority (67%) of participants reported a decreased number or type of leisure activities or interests because of their stroke. Not only are these issues devastating to the stroke patient and their family, they have long-lasting financial implications for the healthcare system that can no longer go unaddressed.

To better identify and improve the unmet needs of stroke survivors and their caregivers, we propose the widespread use of reliable and valid wellness assessments and personal wellness plans in stroke recovery that is driven by patient-specific needs on a continuum. Many holistic recovery and wellness interventions are supported by empirical evidence; however more research is needed in this area to define the best approach, optimal timelines and effectiveness of multi-dimensional recovery and wellness programs in the post-stroke period.

An additional area of opportunity is the relationship between holistic recovery, wellness interventions, and individual physiological responses that may aid in recovery. One small study of stroke survivors found that art therapy may contribute to the improvement in confidence and the installation of hope with possible benefits on both anxiety and depression during recovery.¹² In a separate study, it was found that both music and audio book listening enhances early sensory processing, auditory sensory memory, cognitive recovery, and mood after stroke.¹³ In addition, verbal memory and focused attention is improved in participants who listen to music compared to those who listened to audio books and who did not receive any music/audio interventions.¹⁴ It has also been found that traditional Thai massage can decrease spasticity, increase functional ability, and improve post-stroke quality of life.¹⁵

In addition to the potential physical burdens, stroke can also introduce changes in psyche and behavior. Even when physical symptoms improve, the fear and anxiety associated with such a life-threatening event can last a lifetime, resulting in long term chronic health conditions. Post-stroke depression and post-traumatic stress disorder are common following stroke and remain difficult to treat.¹⁶ Mindfulness-based meditation has shown promise in decreasing depressive symptoms and improving overall quality of life in major depression¹⁷ and stroke.¹⁸ These positive empiric findings highly support a model that embraces comprehensive holistic recovery and wellness programs in addition to traditional stroke care to promote post-stroke survivor recovery and decrease the risk of hospital re-admissions and negative sequelae. Treatment plans that address these holistic concerns should be incorporated in all aspects of stroke care and recovery models.

Conclusions, Limitations, and Next Steps

There is a need to implement holistic recovery and wellness models into post-stroke recovery by adapting current practice models. More holistic-focused research could better articulate how to improve outcomes and meet the individual needs of the post-stroke survivors. The solution may be as complex as creating a mobile clinic initiative to reach patients who are unable to present to traditional facilities or implementing telemedicine

efforts to improve access to care. Alternatively, it may be as simple as incorporating therapeutic or healing touch during a conversation or by encouraging a culture of mind/body awareness among the healthcare team, the post-stroke survivor and his or her family. Other efforts could include creating a nurse-led support group for post-stroke survivors and their caregivers or by implementing more sensory therapies such as pet, music, or massage in rehabilitation efforts. The healthcare team may greatly benefit from talking with post-stroke survivors and their caregivers about their individual needs, suggestions, and coping strategies. Many of these interventions may be used as social opportunities and can serve as a supportive environment for both patients and their caregivers.

The time has come to incorporate a holistic, multidisciplinary perspective into the recovery and wellness care of post-stroke patients. Opportunities for recovery and wellness have demonstrated that outcomes improve when the Dimensions of Wellness Models are employed. The interdisciplinary healthcare team is in a unique position to introduce the holistic model of care when advocating for their patients' recoveries. A recovery and wellness model would promote the highest level of individual recovery and has the opportunity to revolutionize and personalize stroke therapy, if we are willing to restructure our approach.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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References

1. Kunst AE, Amiri M, Janssen F. The decline in stroke mortality: exploration of future trends in 7 Western European countries. *Stroke*. 2011 Aug; 42(8):2126–2130. [PubMed: 21700943]
2. Howard G, Goff DC. Population shifts and the future of stroke: forecasts of the future burden of stroke. *Ann N Y Acad Sci*. 2012 Sep;1268:14–20. [PubMed: 22994216]
3. Institute of Medicine. The future of nursing: Leading change, advancing health. 2010. Retrieved from http://books.nap.edu/openbook.php?record_id=12956&page=R1
4. Nathenson PA, Nathenson SL, Divito KS. Implementing the New CARF Wellness Standards. *J Stroke and Cerebrovascular Disease*. 2014; 23(5):1118–1130.
5. Erickson HL, Erickson ME, Sandor MK, Brekke ME. The holistic worldview in action: evolution of holistic nurses certification programs. *J Holist Nurs*. 2013 Dec; 31(4):303–313. [PubMed: 23958825]
6. Nathenson P. Application of holistic nursing in the rehabilitation setting. *Rehabil Nurs*. 2012 May-Jun;37(3):114–118. [PubMed: 22549628]
7. Substance Abuse and Mental Health Services Administration. [Accessed on March 19, 2015] Eight dimensions of wellness. Retrieved from <http://promoteacceptance.samhsa.gov/10by10/dimensions.aspx>
8. Swarbrick M. A wellness approach. *Psychiatr Rehabil J*. 2006 Spring;29(4):311–314. [PubMed: 16689042]

9. Theeke L, Horstman P, Mallow J, et al. Quality of life and loneliness in stroke survivors living in Appalachia. *J Neurosci Nurs*. 2014 Dec; 46(6):E3–E15.
10. Murray J, Young J, Forster A. Measuring outcomes in the longer term after a stroke. *Clin Rehabil*. 2009 Oct; 23(10):918–921. [PubMed: 19779006]
11. McKeivitt C, Fudge N, Redfern J, et al. Self-reported long-term needs after stroke. *Stroke*. 2011 May; 42(5):1398–1403. [PubMed: 21441153]
12. Ali K, Gammidge T, Waller D. Fight like a ferret: a novel approach of using art therapy to reduce anxiety in stroke patients undergoing hospital rehabilitation. *Med Humanit*. 2014 Jun; 40(1):56–60. [PubMed: 24429732]
13. Sarkamo T, Pihko E, Laitinen S, et al. Music and speech listening enhance the recovery of early sensory processing after stroke. *J Cogn Neurosci*. 2010 Dec; 22(12):2716–2727. [PubMed: 19925203]
14. Sarkamo T, Tervaniemi M, Laitinen S, et al. Music listening enhances cognitive recovery and mood after middle cerebral artery stroke. *Brain*. 2008 Mar; 131(Pt 3):866–876. [PubMed: 18287122]
15. Thanakiatpinyo T, Suwannatrai S, Suwannatrai U, et al. The efficacy of traditional Thai massage in decreasing spasticity in elderly stroke patients. *Clin Interv Aging*. 2014; 9:1311–1319. [PubMed: 25143717]
16. Kiphuth IC, Utz KS, Noble AJ, Kohrmann M, Schenk T. Increased prevalence of posttraumatic stress disorder in patients after transient ischemic attack. *Stroke*. 2014 Nov; 45(11):3360–3366. [PubMed: 25278556]
17. Chiesa A, Castagner V, Andrisano C, et al. Mindfulness-based cognitive therapy vs. psycho-education for patients with major depression who did not achieve remission following antidepressant treatment. *Psychiatry Res*. 2015 Apr 30; 226(2–3):474–483. [PubMed: 25744325]
18. Johansson B, Bjuhr H, Ronnback L. Mindfulness-based stress reduction (MBSR) improves long-term mental fatigue after stroke or traumatic brain injury. *Brain Inj*. 2012; 26(13–14):1621–1628. [PubMed: 22794665]

Table 1

An example of a personal wellness plan that accommodates all of the dimensions of wellness

Dimension of Wellness	Suggested activities to address patient identified needs
<i>Social</i>	In-person and tele-support groups; Develop patient blog & online resource centers; Address change in relationships or changing role in relationships; sexual health & sexuality
<i>Emotional</i>	Practice self-awareness; Address negativity; Practice gratitude and mindfulness; Address & prevent anxiety, fear and depression; guided imagery; touch and hand mediated therapies;
<i>Spiritual</i>	Prayer, meditation, mindfulness, intention setting, life purpose, energy therapy, aromatherapy, focus on healing, dying in peace or death preparation
<i>Occupational</i>	Art, music, writing therapy, journaling; identify changing roles in occupation, how to support the 'new' person in their occupation
<i>Financial</i>	Financial planning, Living will,
<i>Intellectual</i>	Education and activities that stimulate learning; audio books; creative expressions such as movement, nature, sound, rhythm, voice, dance
<i>Physical</i>	Rehabilitation; address pain, loss of mobility and incontinence; yoga; Tai-Chi; massage; relaxation and breathing techniques; exercise; diet education; herbal therapy and dietary supplements;
<i>Environmental</i>	Decrease risk for falls in home and work areas; de-clutter; air, water, temperature, physical environment assessment; detoxification; address loss of interest in leisure activities or find new ones