



# IMPACT OF REHABILITATION PROGRAMS

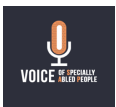
## EXECUTIVE SUMMARY

According to the American Stroke Association and the Centers of Disease Control and Prevention (CDC), strokes continue to be a leading cause of death and long-term disability in the United States. The CDC quantifies that every year, an average of 795,000 people in the United States have a stroke. The impacts of a stroke are significant considering the numerous challenges survivors face following acute care, including but not limited to: depression and anxiety, new physical disabilities, and loss of independence to pursue social activities.

As a result of the many physical and mental challenges post-stroke, many survivors face difficulties reintegrating into society and returning to participate in home, community, and workplace activities. According to a 2013 study on participation after stroke, more than 1/3 of individuals who suffered a first mild-to-moderate stroke reported unsuccessful participation in everyday activities 6 months later (Eriksson et al., 2013). These barriers are important to address as they are integral to the recovery process, especially as many patients prioritize the goal of being able to participate in everyday life (Warner et al., 2015). Due to the complex nature of the recovery journey, self-management programs are a proposed rehabilitation model to help improve stroke survivor outcomes and help patients adapt or readjust to their new circumstances. Self-management, in its most general form and definition, helps empower and educate clients to encourage active management of their health conditions (Lo & Chau, 2021). The goal of these programs is to provide patients with knowledge and skills that aid in handling the symptoms and risks of their respective conditions, the emotional toll resulting from the condition at hand, and the maintenance or creation of new life roles due to the effects of their health condition (Warner et al., 2015). Because rehabilitation services tend to focus on short-term and physical function outcomes, self-management programs may be able to address some of the barriers seen during the stroke recovery process that traditional rehabilitation services do not address (Peoples et al., 2011; Wolf et al., 2016).

In recent years, studies from various countries have highlighted the positive impact of stroke self-management programs in assisting stroke survivors in their recovery process post-acute care. There are a few studies that specifically examine the effectiveness of such programs on participation outcomes in the United States, however, the results vary. Consequently, it remains uncertain as to whether stroke self-management programs are effective in improving participation outcomes. Furthermore, there does not exist a review of existing research on this topic that focuses on results in the U.S. found in the past ten years. This current review aimed to address some of these gaps in rehabilitation research. The goal of this study was to synthesize and evaluate existing research on the effectiveness of stroke self-management programs in improving participation outcomes in stroke patients, specifically focusing on programs in the U.S. in the past decade.

To explore the effectiveness of stroke self-management interventions, secondary data collection and interviews with experts in the field were conducted. After a thorough review of studies in three research library databases, five studies were deemed appropriate to include in the current study. Four interviews were conducted with researchers who have and are continuing to research self-management programs, all of whom were involved in one or two of the five selected studies. This methodology provided significant quantitative and qualitative data to analyze.

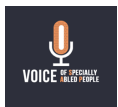


After assessing data from the five selected studies, four of the five studies (studies 1, 2, 4, 5) demonstrated positive outcomes as a result of a stroke self-management intervention, which included improvements in participation outcomes, self-efficacy, and quality of life. Of these four studies, two found statistically significant evidence that self-management programs improved participation in patients (studies 2 and 4). While the other two studies (studies 1 and 5) did not find direct evidence of self-management programs bettering participation outcomes, they did find that the program intervention strengthened self-efficacy. Self-efficacy has been found to play an important role in social participation and can help stroke survivors build their courage and confidence to return to everyday activities. A 2021 study explained that mobility is a “major determinant of social participation after stroke,” and found that participation self-efficacy mediates this relationship between mobility and social participation (Chau et al., 2021).

After conducting the four interviews, the general consensus across all interviewees was that while current research indicates that self-management programs can be beneficial, more research needs to be done to solidify this conclusion. As explained by interviewee Dr. Timothy J. Wolf, “I think individuals with stroke have been pretty receptive to participating in self-management programs, but we still lack pretty solid evidence to support the effect of the interventions.” The interviewees also emphasized the importance of problem-solving focus and peer support/group activities component in self-management programs, and how they can help stroke survivors build confidence and reintegrate into their community.

Based on the data obtained from the five studies and evidence from the four interviews, it was concluded that self-management programs are effective in improving participation in stroke survivors during recovery. However, the novelty of this topic and the limitations of this review necessitate more research to be done to concretely support this conclusion. Future research may be directed towards examining how self-management programs can be made more accessible for underrepresented populations or those without medical insurance, as well as the long-term benefits of these interventions. Additionally, with the importance of peer support highlighted through the interviews, the rehabilitation field can benefit from more investigations into whether increasing the number of peer interactions in self-management programs will help promote participation outcomes.

As more research develops surrounding the effectiveness of self-management interventions, it may be beneficial to implement these programs on a wider scale. Although self-management programs may not be suitable for all stroke survivors, it is recommended to make research on this topic more prevalent among rehabilitation experts and make the option to participate in these programs more readily available to patients. Taking these steps could be a leap forward to providing higher quality care for thousands of Americans.



## ABOUT THE AUTHORS

Yingxin Wu is an undergraduate student at the University of Southern California majoring in Human Biology. On campus, Yingxin is involved with the USC Asian American Tutorial Program, USC APASS (Asian Pacific American Student Services), and is a peer mentor for the First Year Experience program to provide guidance for first-year and first-generation college students. She has also been involved in the First Year Experience student committee to design and lead professional development and wellness workshops. Outside of school, Yingxin enjoys hiking, reading, and baking.

Ezi Ozoma is a recent Human Biology graduate of the University of Southern California. On campus, she was involved in residential education as an RA, athletic medicine, the pre-physical therapy club, and a few other cultural clubs. During her free time, Ezi enjoys playing sports and watching her favorite shows.

Phillip Jang is an undergraduate student at the University of Southern California majoring in Biomedical Engineering. His current career goal is to become a prosthetist.

Adebayo Omileye is a recent graduate of Obafemi Awolowo University in Nigeria and majored in Physical Therapy. On campus, he was involved in his class and fellowship administration and department volunteering. Adebayo enjoys reading and watching anything football (Arsenal FC precisely) in his free time.

Clio Klapsis is an undergraduate student majoring in Political Science at the University of Southern California with minors in International Relations and Spanish. Clio's campus involvement includes competing with the Model United Nations team (Clio was the 2021 President!), doing research with a security and political economy lab called SPEC, tutoring elementary school students, and providing after school programming for kids from third to twelfth grade through USC Troy Camp. She is passionate about disability justice, international human rights, labor rights, and learning languages (Clio speaks Greek and Spanish!), as well as reading, camping, and hiking in her free time.

Ojuade Fatimat Modupe is a recent graduate of Obafemi Awolowo University in Nigeria and majored in Occupational Therapy. She was inspired to pursue research in the disability sector after seeing the many challenges that persons with disabilities have faced, such as lack of inclusion in society, lack of access to rehabilitation services and assistive technology, and lack of support to help them live independently.

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## WHY THIS MATTERS TO VOSAP

VOSAP has been a champion of advocating for the inclusion of Specially Abled People, especially by advocating for a truly representative, authentically inclusive, and empowering-of-all corporate America. This study sought to establish understanding of the current landscape of disability-related CSR programs, identify potential areas for improvement, and inform recommendations for next steps for companies to improve their CSR programs for PWD.

## ABOUT VOICE OF SPECIALLY ABLED PEOPLE INC

Voice of Specially Abled People (VOSAP) is a global advocacy organization built on the principles of Empowerment of Specially Abled People. In Special Consultative Status with UN ECOSOC, VOSAP is working to create an Inclusive and Accessible world by accelerating implementation of UN Sustainable Development Goals (SDGs) and goals of UN CRPD (Convention on the Rights of Persons with Disabilities) treaty. In addition to enabling individuals with assistive devices, surgical interventions, scholarships etc, VOSAP has created innovative digital transformation tools to promote inclusion of Person with disabilities such as (a) Virtual Art Gallery on Disability to educate masses on disability and promote inclusion, (b) create crowdsource demand for accessibility of public places and create mass movement of virtually connected  $\approx 10,000+$  volunteers/changemakers using VOSAP App.

