

The effects of a transitional care programme using holistic care interventions for Chinese stroke survivors and their care providers: A randomized controlled trial.

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Abstract

Background. Stroke is a sudden and catastrophic event affecting all aspects of survivors' life as well as their caregivers. In reviewing a variety of stroke RCT studies, it is found that the majority focused on interventions that enhanced physical functioning and cognitive behavioral conditions. Some studies examined specific stroke consequences and their relationships with psychological outcomes and quality of life. However, only a paucity of studies addressed the holistic health status of stroke survivors and their families. It is noted that at the system level, transitional care programmes have been developed to investigate the effects of continuous services in the transitional stage of care on selected groups of chronically ill clients such as elderly group was not included. In view of the gap, this study aims at developing a transitional care programme with six strands of holistic care interventions. Based on the evidence-based protocols, the transitional care programme focuses on addressing the holistic concerns of stroke survivors.

Aim. The purpose of this study is to develop a holistic and transitional stroke care model and evaluate its effectiveness within a sample of Chinese stroke survivors in Hong Kong.

Method. There were two stages in this study. In stage one, the stroke transitional care programme with interventions was developed based on Marshall's (2006) Evidence Based Practice (EBP) model. It contained six standardized protocols including (1) prerequisite and training of holistic case managers (HCMs), (2) application of the Omaha System as nursing documentation, (3) family meeting guided by motivational interviewing, (4) home visit, (5) telephone follow-up and (6) health and community care referral system which was implemented by HCMs. The HCMs are experienced community health nurses. A holistic care patient self-management log book was also developed in line with the interventions to provide holistic care health information and to empower health adherence behaviors of the stroke clients.

In stage two, a randomized controlled trial was designed to evaluate the effects of the interventions. Subjects were recruited in hospitals within a cluster of the Hong Kong Hospital Authority system from August 2010 to September 2011. One hundred and eight stroke subjects were randomly assigned into the study group ($n=54$) and control group ($n=54$). The subjects in the study group received the holistic transitional care programme which commenced one-week before discharge and lasted till the fourth week in transition to home. One trained HCM from each community nursing center in the cluster was responsible for the provision of holistic care interventions and transitional care follow-ups. In contrast, the subjects in the control group received usual poststroke care.

In addition to the main study, a qualitative study using focus groups was adopted to explore the caregiving experiences of the informal family caregivers and the health care providers. The qualitative data served to illuminate the findings of the statistical outcomes.

Outcome Measures. The outcome indicators included the health-related quality of life (QOL), QOL in spirituality, religion and personal belief (SRPB-QOL), holistic health status and patient satisfaction with care on the patient-related aspect. The clinical outcomes involving functional performance, poststroke depression and utilization of health care services were also examined.

Results. Repeated measures analysis of variance with intention-to-treat strategy was used to examine the outcomes. There were significant differences in the between-group over time effects in the PCS ($F=10.15$, $p=0.002$) and the MCS ($F=8.41$, $p=0.005$), the SRPB-QOL ($F=20.97$, $p<0.001$) and three facets of the holistic health status ($p<0.004$). Stroke subjects in the study group showed a significant improvement in the general QOL and well-being in the physical, psychological, social and spiritual dimensions, but the improvement did not sustain over time. However, they had a progressive improvement in the physical function achieving between-group difference ($F=5.50$, $p=0.021$) though significant differences within-group ($F=14.06$, $p<0.001$) was also detected. There was significant interaction effect between group and time ($F=4.81$, $p<0.031$). Besides, the results of the functional performance reported similar positive

pattern of changes. Furthermore, patients in the study group showed a significantly higher level of patient satisfaction with care. There were statistically significant differences in the between-group at T1 (study 54.4 vs. control 33.5, $p < 0.001$) and T2 (study 52.7 vs. control 35.7, $p < 0.001$) in T2. Significant decrease in the poststroke depressive symptoms were found in the between-group differences at T1 ($Z = -4.89$, $p < 0.001$) and T2 ($Z = -4.82$, $p < 0.001$) and within-group over time ($p < 0.001$). As for another clinical outcome, the utilization of health care services, results showed a lower readmission rate (study: 7.4% vs. control: 14.8%, $\chi^2 = 1.5$, $p = 0.35$), and lower unscheduled emergency reattendance rate (study: 4% vs. control: 18.4%, $\chi^2 = 4.86$, $p = 0.06$) within the study group as compared with the control group. Furthermore, a significant reduction in the scheduled clinical visits to both government and private clinics ($p < 0.027$) was reported.

With regard to the qualitative information in the caregivers' perspective, thematic expressions of all three focus groups were aggregated into four themes: (1) caregiving challenges to the caregivers, (2) caring for stroke sufferers as a growing process, (3) HCM as a healer, and (4) enhancing the inner strength. The positive caregiving experiences and holistic values of the interventions were elaborated by the informants during interviewing. The pivotal role of connectedness between the HCMs and clients has been identified in the qualitative analysis.

Conclusion. Actually, this study is the first study employing a holistic and transitional care approach for Chinese stroke survivors in Hong Kong. The empirical results demonstrate the effectiveness of this programme in improving the holistic health and quality of life of the stroke subjects, especially their physical function and self-care performance. It is apparent that the immediate physical improvement in turn triggers responses of the total person resulting in improvement on other aspects, such as psychological, social and spiritual dimensions.

Besides, the qualitative results indicate the importance of the role of the HCMs. They enhance the caregiving capacity by connecting with the client and their families. Apart from motivating patient self-management, they provide consistent, seamless holistic care service. This service addresses care needs more than merely at the physical level.

It should be noted that family involvement plays an important part in the patient's coping with his illness. Family participation and support are especially important in the Chinese cultural context. It is true that spiritual resources including love, hope, faith, reinforce one's inner strength and serenity. They are necessary in building a positive world view, so that the patient can lead a new, fulfilling stroke life.

To conclude, in providing holistic care, physical, psychological, social and spiritual aspects of health concerns should be addressed in a culture specific context. Individual dimensions are dynamically interplayed to make the sum of whole which is greater than the parts. It is hoped that this holistic approach is recommended for future tests in other chronic disease patient groups.

As for limitations in this study, process evaluation was not conducted. This can be included in future research to obtain more information to help explain the benefits of the programme. Assessing of the intervention fidelity and potency of nurse dose in the holistic transitional care programme may elicit supporting evidence for extending the holistic care model to other chronic disease population.