



Can the OMAHA SYSTEM be applied in Community Nursing?

~ A pilot practice in a Transitional Care Program using Holistic Care Interventions for stroke survivors in New Territories East Cluster (NTEC)



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Introduction

OMAHA SYSTEM is a comprehensive and holistic terminology for community-based practice which consists of the **Problem Classification Scheme** (nursing diagnosis), **Intervention Scheme** and **Problem Rating Scale for Outcomes**. It is an assessment + interventions + evaluation – in – one nursing documentation system.

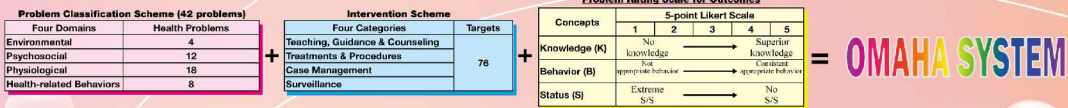


Table 1: One health problem in the Omaha System Problem Classification Scheme

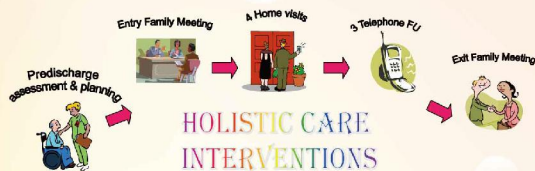
Problem Classification Scheme	Pre-discharge / Problems		1 st Home Visit / Problems		2 nd Home Visit / Problems		3 rd Home Visit / Problems		
	Individual	Refine	Individual	Refine	Individual	Refine	Individual	Refine	
15. Neuro-musculo-skeletal function	<input type="checkbox"/> 15.1. Limited range of movement	<input type="checkbox"/> 15.1. K ___ <input type="checkbox"/> 15.2. B ___ <input type="checkbox"/> 15.2. S ___	<input type="checkbox"/> 15.1. K ___ <input type="checkbox"/> 15.2. B ___ <input type="checkbox"/> 15.2. S ___		<input type="checkbox"/> 15.1. K ___ <input type="checkbox"/> 15.2. B ___ <input type="checkbox"/> 15.2. S ___		<input type="checkbox"/> 15.1. K ___ <input type="checkbox"/> 15.2. B ___ <input type="checkbox"/> 15.2. S ___		<input type="checkbox"/> 15.1. K ___ <input type="checkbox"/> 15.2. B ___ <input type="checkbox"/> 15.2. S ___
	<input type="checkbox"/> 15.2. Decrease muscle strength:								
	#L: upper: Rt. upper: ___								
	#L: lower: Rt. lower: ___								
	<input type="checkbox"/> 15.3. Decreased muscle tone:	<input type="checkbox"/> 15.3.	<input type="checkbox"/> 15.3.	<input type="checkbox"/> 15.3.		<input type="checkbox"/> 15.3.		<input type="checkbox"/> 15.3.	
	L: / Rt.*								
	<input type="checkbox"/> 15.4. Increase muscle tone:	<input type="checkbox"/> 15.4.	<input type="checkbox"/> 15.4.	<input type="checkbox"/> 15.4.		<input type="checkbox"/> 15.4.		<input type="checkbox"/> 15.4.	
	L: / Rt.*								
	<input type="checkbox"/> 15.5. Decreased coordination	<input type="checkbox"/> 15.5.	<input type="checkbox"/> 15.5.	<input type="checkbox"/> 15.5.		<input type="checkbox"/> 15.5.		<input type="checkbox"/> 15.5.	
	<input type="checkbox"/> 15.6. Decreased sensation	<input type="checkbox"/> 15.6.	<input type="checkbox"/> 15.6.	<input type="checkbox"/> 15.6.		<input type="checkbox"/> 15.6.		<input type="checkbox"/> 15.6.	
	<input type="checkbox"/> 15.7. Numbness	<input type="checkbox"/> 15.7.	<input type="checkbox"/> 15.7.	<input type="checkbox"/> 15.7.		<input type="checkbox"/> 15.7.		<input type="checkbox"/> 15.7.	
	<input type="checkbox"/> 15.8. Poor balance:	<input type="checkbox"/> 15.8.	<input type="checkbox"/> 15.8.	<input type="checkbox"/> 15.8.		<input type="checkbox"/> 15.8.		<input type="checkbox"/> 15.8.	
<input type="checkbox"/> Sitting: <input type="checkbox"/> Standing									
<input type="checkbox"/> 15.9. Gait disturbance	<input type="checkbox"/> 15.9.	<input type="checkbox"/> 15.9.	<input type="checkbox"/> 15.9.		<input type="checkbox"/> 15.9.		<input type="checkbox"/> 15.9.		
<input type="checkbox"/> 15.10. Difficulty transferring	<input type="checkbox"/> 15.10.	<input type="checkbox"/> 15.10.	<input type="checkbox"/> 15.10.		<input type="checkbox"/> 15.10.		<input type="checkbox"/> 15.10.		
<input type="checkbox"/> 15.11. Difficulty walking	<input type="checkbox"/> 15.11.	<input type="checkbox"/> 15.11.	<input type="checkbox"/> 15.11.		<input type="checkbox"/> 15.11.		<input type="checkbox"/> 15.11.		
<input type="checkbox"/> 15.12. Others: _____	<input type="checkbox"/> 15.12.	<input type="checkbox"/> 15.12.	<input type="checkbox"/> 15.12.		<input type="checkbox"/> 15.12.		<input type="checkbox"/> 15.12.		

Pilot Practice in a Transitional Care Programme

The Omaha System was incorporated to build a holistic and systemic foundation in a Transitional Care Program (TCP) that structured the assessment, planning, implementation and evaluation. This TCP was an interventional study in NTEC which aimed to provide better coordination and seamless holistic care for stroke survivors when they are discharged home.

TCP included a pre-discharge planning, entry and exit family meetings, home visits and telephone follow-ups provided by a holistic care manager (HCM) in Community Nursing from 1-week pre-discharge to 4-week postdischarge. Holistic Care Interventions (HCI) is another key element from which interventions were categorized using the standardized terminology in the Omaha System's Intervention Scheme and addressed stroke survivors' holistic concerns.

Key Elements in the TCP



Objective

This study aimed to identify the common health problems among stroke survivors during hospitalization and in transition to home.

Methodology

35 holistic care record books in the study group of a larger randomized controlled study were reviewed and content analyzed for specific post-stroke health problems. An inter-rater reliability of 90.4% was achieved between individual HCM in four Community Nursing Service centres of NTEC and the research investigator. The outcomes measures included the change of Knowledge, Behavior and Status as well as health-related quality of life measured by MOS SF-36 at baseline and at completion of the TCP.

Implications

The Omaha System served as a useful assessment tool and comprehensive guide for nursing interventions in this study. Findings identify stroke-specific health problems that are valuable for constructing targeted nursing interventions. The magnitude of positive changes among survivors' knowledge, behavior and status, as reflected in the rating scale of the Omaha System as well as the health related quality of life, help to confirm the value of community nurses and the effectiveness of the TCP using HCIs for stroke survivors.

Results

There were a total of 35 subjects in the study group. Their average age was 67.7 + 12.5. There were 25 female (71.4%) and 10 male (28.6%) stroke patients. Almost 2/3 of them had lower educational level (65.7%) and with diverse religious background. Majority were of ischemic stroke for its first episode (82.9%).

Specific problems associated with stroke were identified, including the highest five priority: neuro-musculo-skeletal function (100%), mental health (88.6%), role change (88.6%), personal care (80%) and nutrition (77.1%). The top 10 stroke specific problems encompassed holistic concerns including physical-psycho-social-spiritual aspects. The problem of sleep and rest pattern was commonly found during hospitalization and was subsequently resolved immediately after returning home. Spirituality and pain concerns were commonly found in transitional stage (Table 2).

Table 2: Top Ten Health Problems for Stroke Survivors (Study Group)

Problem Classification Scheme	Frequency (n=35)	Percentage (%)
1. Neuro-musculo-skeletal (NMS) function	35	100
2. Mental health	31	88.6
3. Role change	31	88.6
4. Personal care	28	80.0
5. Nutrition	27	77.1
6. Pain	22	62.9
7. Spirituality	22	62.9
8. Social contact	19	54.3
9. Residence	17	48.6
10. Sleep & rest pattern	15	42.9

Mean score differences between the admission and end-of-program outcomes rating, indicated a progressive improvement in terms of Knowledge, Behavior and Status (Table 3). Results also showed significant difference in the both the physical health domain ($P = 0.01$) and mental health domain ($P = 0.03$) of the MOS SF-36. It meant that subjects in the study group had significant improvement in the health-related quality of life after undertaking the TCP using holistic care interventions.

Table 3: Mean scores difference between Pre-discharge and after completion of the TCP by the Omaha System Outcomes Rating

Health Problems	Knowledge [mean]		Behavior [mean]		Status [mean]	
	Baseline	Week 4	Baseline	Week 4	Baseline	Week 4
1. NMS function	2.84	4.09	2.66	3.96	2.60	3.93
2. Mental health	3.06	4.33	2.8	4.09	2.87	4.12
3. Role change	3.18	4.37	3.03	4.28	3.12	4.37
4. Personal care	3.20	4.62	3.03	4.59	3.03	4.59
5. Nutrition	2.9	4.48	3.04	4.54	3.04	4.56

Research Partners:



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