



香港復康會
The Hong Kong Society
for Rehabilitation



*The 7th Conference cum Workshop on
Practice and Research for Social Service Excellence
“Learning for Service Development: What Evidence Tells”*

**“SMARTCare” – an Innovative Collaboration between
Hospitals, Social Welfare Sectors and Neighborhood.**

What are the Outcomes for Carers of People with Chronic Diseases?

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Background of SMARTCare Movement

- Family carers of persons with chronic diseases experience high level of stress → physical symptoms, depression and psychosocial problems
- “SMARTCare Movement” → to **improve well-being of family carers** in HK East
- Funded by Community Investment & Inclusion Fund (CIIF), strategic partnering with HA HKEC, close collaboration with neighborhood
- Two phases:
 - Phase I: 2011-2014 (SMARTCare · 齊“喜”動)
 - Phase II: 2014-2017 (SMARTCare · 有您友里)





Program Logic Model

Evaluation results of Phase I →
supported the design of **brief service & full service** →
developed **program logic model**



Project team's clinical experience



Advice from “SMARTCare Movement” Steering Committee



Program Logic Model

Input

Staff

Collaborators

Resources

Output *(no. of programs & beneficiaries)*

1. Carer Support Service

2. Collaboration with HA HKEC

Refer carers in-need



- Brief Service
 - 新手導航服務
- Full Service
 - 義工關懷 (電話/家訪)
 - 互助俱樂部 (聚會、興趣組、外出)
 - 愛不停 (節日探訪)

3. Collaboration with Neighborhood & Corporate

Mobilize volunteers



(Data collection plan is incorporated into service operation)

Outcome

Intermediate Outcomes



Long-term Goals



Evaluation Objectives

- To identify the satisfaction levels of the carers after receiving the services
- To identify the perceived change of caregiving burden after receiving the services
- To identify changes in chronic disease management of care recipient after receiving the services
- To identify positive gains following family caregiving after receiving the services

1) 是次活動資訊內容, 你覺得有用嗎?

	數目	百分比
沒有接受次項服務 (1)	3	2.0%
非常有用 (2)	41	26.8%
有用 (3)	70	45.8%
沒有用 (4)	5	3.3%
非常沒有用 (5)	1	0.7%
我不記得 (6)	1	0.7%
我不知道 (7)	1	0.7%
沒有填	31	20.3%
總數	153	100%

2) 你曾向計劃同事分享你面對的壓力，你覺得傾談後，壓力有減低嗎？

	數目	百分比
沒有接受次項服務 (1)	14	9.2%
非常有用 (2)	26	17.0%
有用 (3)	69	45.1%
沒有用 (4)	4	2.6%
非常沒有用 (5)	0	0.0%
我不記得 (6)	0	0.0%
我不知道 (7)	4	2.6%
沒有填	36	23.5%
	153	100%

3) 如果將來有需要, 你會再使用此服務嗎?

	數目	百分比
絕對會(1)	50	32.7%
會(2)	69	45.1%
不會(3)	2	1.3%
絕對不會(4)	0	0.0%
我不知道(5)	0	0.0%
沒有填	31	20.3%
	153	100%



Evaluation Method

Focus: Service Outcomes of Full Service

1. Collection of background of carers and care-recipients
2. Measurement of:
 - 2.1 Carer burden – **Burden Scale for Family Caregiving (BSFC)**
 - 2.2 Self-efficacy of chronic disease management – **Partners in Health (PIH)**
 - 2.3 Personal gain from caregiving - **GAIN**
3. Timeline:
 - 3.1 **BSFC & PIH** – before & after enrollment to full service (10-month)
 - 3.2 **GAIN** – after 10-month enrolled to full service
4. Case discussion with SMARTCare Project team
 - 4.1 analyzing special cases → any service implications?
 - 4.2 improvement of data quality

Major Difficulties Encountered

- Family carers are busy!
- A lot of “Studies”!
- Lack of a user-friendly data management system!
- The data collection plan was not very “well-planned” at the beginning!

Solutions

- Emphasize the meaning of outcome evaluation & importance of the data
- Implement “research-practice” integration
- Be focusing & declined some invitations of studies related to family caregiver services
- Develop clear workflow
- Designated staff to manage the whole process





Carers' Characteristics

- 78 carers received full service participated in the evaluation (*voluntary-basis*)
- Age:
 - Mean = 63.3 (SD=12.27)
- Gender:
 - Male: 32.1% (N=25)
 - Female: 67.9% (n=53)
- Taking care of:
 - Spouse: 55.1% (n=43)
 - Parent: 32.1% (n=25)
 - Others: 12.8% (n=10)



Care Recipients

- No. of Chronic Diseases:
 - **1** (59.0%, n=46)
 - **2** (26.9%, n=21)
 - **3 or more** (14.1%, n=11)
- Common chronic diseases:
 - **Stroke** (42.3%, n=33)
 - **Cognitive impairment** (15.4%, n=12)
 - **Heart disease** (11.5%, n=9)
 - **Parkinson's disease** (10.3%, n=8)
 - **Other diagnoses** (20.5%, n=16)



Carer Burden (BSFC)

About the scale

- No of items: 28
- Scale range: 28 - 112
- midpoint: 70, higher score means greater burden

2nd assessment

- Mean initial score: 65.92
- 2nd assessment: 61.92
- Difference = -4.0 (statistically significant $p = 0.031$)
- $n=78$
- Mean time interval: 10.87 months

Burden Scale by unit of service

	0 unit (n=19)	1 or 4 units (n=41)	5 + units (n=20)
Mean initial score	65.89	64.38	68.95
re-assessment	59.26	62.21	63.90
Difference	-6.63 (p-value = 0.229)	-2.18 (p-value = 0.265)	-5.05 (p-value = 0.036*)
Mean time interval	9.63 months	11.54 months	10.75 months



Self-efficacy of chronic disease management (PIH)

About the scale

- No of items: 12
- Scale range: 0 - 96,
- midpoint: 48, higher score means greater competence in self-management

2nd assessment

- Mean initial score: 72.12
- re-assessment: 76.05
- n=81
- Difference in score: 3.06 (statistically significant at $p=0.0423$)
- Mean time interval: 10.85 months



Personal gains from caregiving (GAIN)

About the scale

- No of items: 10
- Scale range: 1 - 5
- midpoint: 3, higher score means greater GAIN

2nd assessment

- Mean total score: 3.83 (SD = 0.548)
- Subscale: Self 3.96; Relationship 4.13; Spirituality 3.36
- n=75
- Statistical significance compared to no gain < 0.001

GAIN by unit of service

	0 unit (n=19)	1 or 4 units (n=41)	5 + units (n=20)
total	3.79	3.84	3.86
personal	4.13	3.92	3.90
interpersonal	3.85	4.16	4.30
spiritual	3.27	3.40	3.37



Conclusion (1)

- **Full service was associated with positive outcomes:**
 - BSFC overall mean change=4.00 (p=0.031)
 - Difference in PIH=3.06 (p=0.042)
 - GAIN=3.83
- **After analyzing case profile, carers received no service had other factors affecting change in score:**
 - Care-recipients receiving home support services
 - Carers receiving mental health services
 - Reduction in caregiving needs (i.e. care recipients passed away, admitted to elderly home)



Conclusion (2)

- Reduction of caregiver burden was most significant for carers who received 4 or more units of services
 - BSFC change score 5.05, $p=0.035$
 - Carers who had baseline score
- Carers who had higher burden & received more service units resulted in positive outcomes
- SMARTCare full service should consider targeting caregivers who are in higher needs & provide more intense services



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