Effectiveness of the continuum of care to promote older people's quality of life in Hong Kong

ORIGINAL ARTICLE

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ABSTRACT

Objectives. The study aimed to investigate recipients' adaptation of older care and the effectiveness of care services by comparing care recipients' quality of life during transitions across the continuum over time. This continuum ideally describes an older adult's successive use of social centre services, community care, and residential care.

Methods. Three thousand older adults were surveyed using a comprehensive measure of quality of life.

Results. Current users of residential care displayed the highest quality of life. In contrast, older care recipients who experienced transitions to community care exhibited the lowest quality of life. However, their quality of life increased with a longer duration of community care.

Conclusion. Problems of adaptation tend to be responsible for the lower quality of life due to care transition. In contrast, increased adaptation with a longer time reverses the risk into fortune.

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CONCEPTUAL FRAMEWORK

Continuum of care

The continuum of care for older people in Hong Kong refers to the provision of social services, community care, and residential care according to differential levels of need for each individual. Older care recipients shifted from one form of care service to another in relation to their changing needs. However, the transition between different services along the continuum of care had ramifications on their quality of life as did staying in the same service. Differences due to service transition and continuity tended to reflect the impacts of adaptation.[1,2] Accordingly, the older care recipient faces a greater challenge to adapt to the care provided by a service in relation to his or her own needs. In turn, this adaptation is a reflection of the effectiveness of the care service in meeting the needs of older care recipients. Data about older care recipients' adaptation and the effectiveness of the continuum of care are scarce in Hong Kong as in other places. Such data would be useful to upgrade the continuum care services for older recipients with a view to improving quality of life. Obtaining such data was the objective of the present study.

Quality of life

An older person's quality of life ultimately relies on his or her recognition and evaluation of experiences in life.[3-5] There is no objective substitute for the person's subjective experience. The subjective experience of quality of life, albeit abstract,[3] necessarily draws on various forms of concrete experiences in various life domains.[6] Commonly recognised domains entail: accommodation, work, cultural activities, finance, friendship, physical health, self, family, and community.[7,8] Life experiences of quality can also include: being, doing, living, having, enjoying, and feelings of satisfaction.[9,10] The combination of various experiences with diverse life domains creates a comprehensive concept of quality of life that subsumes life satisfaction, satisfaction with various life domains, self-esteem, self-actualisation,

physical, and mental health. The latter are all common indicators of quality of life.[8,10,11]

Promoting care recipients' quality of life is integral to the philosophy of community care.[12] Moreover, quality of life is an indicator of accountability of social services in general.[13] For monitoring purpose, accepted wisdom regards quality of life as an essential outcome indicator.[12,13] Quality of life may be particularly relevant to ageing people because of the prolongation of life-spans.[14,15] Accordingly, in older persons surviving is no longer the primary concern; rather, quality of life is a greater concern for ageing people.[16]

Community care

Services in the continuum of care are likely to promote older care recipients' quality of life as a result of professional inputs. Among them, community care (which includes: home care, home help, day care, respite care, and meal-to-home services) has emerged in the United States and Britain as a tool to maintain the quality of life of its older citizens. Such assertions are based on research into life satisfaction, self-determination, social interaction, and various other indicators of effectiveness.[17-23] The contribution of community care may partly stem from older people's preference for receiving care in the community.[24,25] Moreover, social interaction and integration facilitated in day-care centres may enhance older users' quality of life.[26] Because professional and informal relationships take time to develop, the benefits of community care may only accrue over time.

Residential care

Residential care, including services provided by homes and hostels for the aged, may sustain older residents' quality of life by means of synergy between health care, freedom of choice, home-like environment, privacy and dignity, variety of experience, and safety.[13] Apparently, residential care can be effective for tackling imminent problems facing older people. For instance, older people with acute problems can receive prompt medical treatment in such facilities and this may also raise their quality of life. Conceivably, the intensity of caring resources and professional services available in residential care gives it an advantage in maintaining older people's quality of life (including confidence).

The advantages of community care and residential care can manifest in the differential quality of life of older people undergoing service transition along the continuum of care. Older people with aggravating acute and chronic problems can benefit from turning to residential care. However, such individuals may not benefit immediately, as they need to adapt to initial difficulties stemming from the shift of service use. These difficulties may therefore erode quality of life. Consequently, data about service use in the continuum of care are necessary to evaluate the following hypotheses: (1) the older person suffers a lower quality of life with a shift of service use along the continuum of care, (2) the older person enjoys higher quality of life with the use of residential care rather than other services, and (3) the older person gains higher quality of life with longer use of community care.

METHODS

This study surveyed 3000 older Chinese people in Hong Kong from 16 October 2001 to 28 June 2002. It set quotas for surveying younger old people (aged 65-74 years), older old people (aged 75-84 years), and very old older people (aged 85+ years) using or not using services of social centres, community care, and residential care. To conduct the sampling and implement the survey, help from 141 service units of the continuum of care was solicited. Interviewers then visited the service units to interview members and non-members referred by these units who were both capable and willing to participate in the survey (**Table 1**).

The respondents answered a survey questionnaire based on work involving 16 focus groups and a pre-test. The focus groups recruited 157 Hong Kong Chinese older people to participate in the project, between 10 April and 9 June 2001. The core question was: "What is a good life? Why do you think that?" With a process of screening and refinement, responses elicited from focus groups helped construct questions for measuring the quality of life, including aspects of self-happiness, physical health, and the abstract global quality of life. The initial questionnaire then underwent a procedure of pre-test, which

Table 1
Percentage of background and service characteristics

Characteristics	%	Characteristics	%
Age (years)		Sex	
65-74	36.6	Male	28.3
75-84	36.8	Female	71.7
≥85	26.6		
Current service		Service 1 year ago	
None	4.9	None	22.5
Social service	27.7	Social service	24.2
Community care	34.8	Community care	26.9
Residential care	32.5	Residential care	26.4
Marital status		No. of chronic illnesses	
Never married	9.0	0	35.1
Married	33.0	1	36.7
Divorced/separated	3.3	2	19.6
Cohabited	0.5	3	6.3
Widowed	54.2	4	1.8
		5	0.4
		6	0.2
Service transition in the past year		Service change in the past year	
None to none	4.9	No	80.1
None to social centre	4.5	Yes	19.9
None to community care	7.7	Increasing care in the past year	
None to residential care	5.4	No	80.7
Social centre to none	0.0	Yes	19.3
Social centre to social centre	22.7	Decreasing care in the past year	
Social centre to community care	0.8	No	99.4
Social centre to residential care	0.8	Yes	0.6
Community care to social centre	0.4		
Community care to community care	26.3		
Community care to residential care	0.1		
Residential care to none	0.0		
Residential care to social centre	0.1		
Residential care to community care	0.0		
Residential care to residential care	26.2		

surveyed 20 older adults, to customise it for the full-scale survey. Finally, the questionnaire for use retained 61 items measuring various aspects of quality life, including physical health and mental health (i.e. the domain of self).

Measurement

Thus, the above-mentioned quality of life measure was comprised of 61 items evaluating various aspects, based on weights empirically derived from a constrained linear regression analysis of a single-item measure of global quality life ("How good is your life currently?"). This weighted overall quality of life instrument was therefore accepted as the optimal for assessing the global quality of life based on all the weighted sum of the 61 items (**Table 2**). The global quality of life, however, was just a seed to identify the weighted overall quality of life useful for analysis and hypothesis testing. To reinforce the analysis, two other components of quality of life, physical health and mental health (i.e. the self domain) were also used as alternative criteria/variables in the analysis. The measure of physical health combined six items, having a reliability alpha of 0.709, whereas the measure of mental health (self) combined seven items, with a reliability alpha of 0.657. For the ease of interpretation, all measures of quality of life had scores lying between 0 (lowest) and 100 (highest).

Table 2
Weights to identify weighted quality of life

Component	Weight	Standard error	95% lower bond	95% upper bond
Quality of cultural activities				
Analysing affairs in society	0.008	0.014	-0.018	0.035
Increasing knowledge	0	0.015	-0.029	0.029
Realising new things from learning from old things	0	0.015	-0.029	0.029
Studying	0	0.017	-0.033	0.033
Being aware of what happens in society	0.002	0.014	-0.025	0.030
Living a substantial life	0.140	0.016	0.109	0.172
Understanding life philosophy	0.012	0.012	-0.010	0.035
Joining interest classes	0	0.014	-0.027	0.027
Quality of work				
Repaying society with learning	0	0.015	-0.029	0.029
Helping people	0	0.014	-0.028	0.028
Doing what one likes	0	0.014	-0.028	0.028
Doing volunteer work	0	0.013	-0.025	0.025
Being capable of working	0	0.013	-0.025	0.025
Taking care of the younger generation	0	0.014	-0.028	0.028
Persuading others not to do anything wrong	0	0.011	-0.022	0.022
Playing a role model for younger people	0	0.013	-0.026	0.026
(Not) having no work to do	0.006	0.011	-0.015	0.027
(Not) being unable to do what one wants	0.036	0.012	0.013	0.059
Quality of accommodation				
Having convenient transportation to and from home	0.005	0.015	-0.024	0.034
Living in one's own house	0	0.010	-0.020	0.020
Using community facilities conveniently	0.026	0.013	0	0.051
Using a well-equipped toilet	0.069	0.016	0.039	0.100
Eating good food	0.093	0.017	0.060	0.125
(No) leaking or soaking in the house	0	0.015	-0.030	0.030
(Not) dwelling in a small place	0.046	0.011	0.024	0.068
Quality of finance				
Having money to sustain oneself	0.003	0.014	-0.023	0.030
Having enough savings	0	0.014	-0.027	0.027
Having enough money to pay for living expense	0.068	0.020	0.029	0.107
Enjoying privileges provided for older people in society	0.032	0.011	0.010	0.054
Having money to meet needs for clothing, eating, etc.	0.021	0.020	-0.018	0.060
(Not) striving for a living	0.038	0.017	0.003	0.072
(Not) having nothing to eat	0.012	0.019	-0.026	0.049
Quality of friendship				
Being together with many friends	0	0.017	-0.033	0.033
Sharing experiences with a mass	0.008	0.014	-0.020	0.035
Experiencing caring concern by people other than family members	0.061	0.014	0.034	0.089
Chatting with intimate friends	0.004	0.017	-0.030	0.038
Showing care among friends	0.001	0.018	-0.034	0.036
(Not) being alone at home	0	0.010	-0.020	0.020
Quality of health				
Sleeping well	0.023	0.013	-0.003	0.048
Being physically healthy	0.015	0.017	-0.019	0.050
Moving freely	0	0.014	-0.027	0.027
Being capable of cleaning the house	0.005	0.011	-0.017	0.027
Caring of oneself	0.017	0.017	-0.016	0.050
(Not) having illness and pain	0	0.014	-0.028	0.028
Quality of life: self				
Seeking happiness	0.026	0.014	-0.001	0.054
Having a calm mind	0.052	0.016	0.022	0.083
Respecting oneself	0.028	0.015	-0.002	0.058
Realising one's having good experience	0	0.014	-0.027	0.027
(Not) experiencing stress	0.004	0.013	-0.023	0.030
(Not) worrying	0.052	0.013	0.026	0.078
(Not) feeling old	0	0.012	-0.023	0.023
Quality of life: community				
Experiencing world peace	0.054	0.013	0.028	0.080
Experiencing everyone's adjustment (to housing and work) in society	0.035	0.014	0.008	0.062
(Not) seeing people having no work to do	0.013	0.014	-0.015	0.041
(Not) experiencing poor economic conditions in society	0.005	0.014	-0.023	0.032
Quality of life: family life				
Offspring being filially pious	0.012	0.017	-0.020	0.045
Whole family's being together harmoniously	0.008	0.017	-0.026	0.042
Whole family's helping one another	0	0.015	-0.029	0.029
Family members' showing care to one	0.005	0.018	-0.030	0.040
(No) offspring's being disobedient	0.020	0.011	-0.001	0.042
(No) family members' being unhappy	0.002	0.013	-0.024	0.028

Table 3
Raw means of quality of life by service transition

1 Year ago	Present	Weighted	Health	Self
None	None	66.1	66.9	61.2
	Social centre	64.4	67.7	58.8
	Community care	59.7	52.6	51.1
	Residential care	66.6	58.5	57.1
Social centre	Social centre	66.9	63.9	61.3
	Community care	58.2	43.7	51.1
	Residential care	69.8	66.6	60.6
Community care	Social centre	65.3	67.9	62.1
	Community care	66.3	59.0	57.4
Residential care	Residential care	68.3	59.5	58.8

Table 4
Effects on quality of life

Predictor	Weighted	Health	Self
Basic background			
Chronic illnesses (each)	-2.211*	-6.416*	-2.824*
Age (every 10 years)	-0.718	-3.966*	-2.815*
Female (vs. male)	0.208	-1.965	-2.295*
Past quality of life			
Past global quality of life	23.535*	20.183*	23.368*
All service transitions (relative to none for the past year)			
From none to community care	-3.846*	-8.295*	-5.775*
From none to residential care	3.083	-3.542	-0.149
From centre to centre	0.468	-1.176	1.908
From centre to community care	-6.101	-15.745*	-4.991
From centre to residential care	5.409	4.682	4.808
From community care to centre	-1.397	0.302	1.516
From community care to community care	0.243	-4.719*	-1.388
From residential care to residential care	3.192*	-3.474	0.870
Significant service transition (relative to others)			
From community care to community care	4.331*	4.369*	4.369*
Current service (relative to none)			
Centre	0.076	-1.456	0.674
Community care	-4.153*	-9.861*	-6.397*
Residential care	3.174*	-4.109*	0.091
Service duration (per year)			
Centre	0.100	-0.135	0.369*
Community care	0.472*	0.642*	0.486*
Residential care	0.103	0.118	0.135
R^2	0.518	0.523	0.421

* p<0.01; controlling for all significant background characteristics

RESULTS AND DISCUSSION

Raw means showed that for older people shifting use of service from social centres to residential care enjoyed the highest weighted quality of life (mean, 69.8) among the people with various kinds of service transition during the recent year (**Table 3**). In contrast, older subjects shifting use of service from social centre to community care had the lowest quality of life in weighted overall quality of life (mean, 58.2), physical health (mean, 43.7), and self (mean, 51.1).

More rigorous regression analysis was carried out to hierarchically control for significant background

predictors and prior quality of life. Shifting from no service to community care during the past year significantly reduced the older person's weighted overall quality of life (b=3.85), physical health (b=8.30), and mental health (b= –5.78), compared with no service use (**Table 4**). Moreover, older people shifting service use from social centres to community care suffered significantly poorer health (b= –15.7). In contrast, compared to other transitions using community care throughout the past year gave an advantage to the older care recipients' weighted overall quality of life (b=4.33), physical health (b=4.37), and mental health (b=4.37). These differentials support hypothesis 1 regarding the disadvantage of service change, presumably due to the need to adapt to community care.

Hypothesis 2 was supported by the finding that there was a significantly higher weighted overall quality of life among residential care recipients (b=3.17) than others. However, they did not enjoy the greatest physical and mental health.

Hypothesis 3 was sustained by the significant positive effects of duration in community care on weighted overall quality of life (b=0.472), physical health (b=0.642), and mental health (b=0.486). Thus, older care recipients' quality of life increased in parallel with longer the periods of community care use.

CONCLUSION

This study lends supports to the three hypotheses about the differential adaptation success of older care recipients who use the services of the continuum of care. Adaptation difficulty is highest among recent recipients of community care. However, adaptation improves with longer use of such care. In contrast, residential care recipients have the greatest weighted overall quality of life and enjoy superior adaptation due to professional inputs among the services available in the continuum of care.

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