

Case management the panacea for aged care?

AUTHORS

Mrs Kaye Ervin

RN, Ba Nurs, Ba Ed, M Ed, Dip Bus
Lecturer, Researcher, University of Melbourne, Rural Health Academic Network, Rural Health Academic Centre, Melbourne, Victoria, Australia.
Kaye is currently a Nurse Practitioner Candidate at Cobram District Health and Researcher for the University of Melbourne.
ervink@humehealth.org.au

Mrs Sarah Finlayson

Ba Acc, Ma
Lecturer, Researcher, University of Melbourne, Rural Health Academic Network, Rural Health Academic Centre, Melbourne, Victoria, Australia.
Sarah is currently Quality Manager at Benalla and District Memorial Hospital.

Dr Elaine Tan

Ba Pharm, PhD
Senior Lecturer, University of Melbourne, Rural Health Academic Network, Rural Health Academic Centre, Melbourne, Victoria, Australia.
Elaine is a senior lecturer in pharmacy for the University of Melbourne and the research supervisor for this project.

ACKNOWLEDGEMENTS

The research project was funded by the Department of Human Services Victoria, as part of the Evaluating Effectiveness of Participation Projects 2007.

There are no conflicts of interest.

KEY WORDS

case management, residential aged care, staff/family relationships, nursing home, models of care

ABSTRACT

Aims

The aim of this study was to evaluate the influence of case management on family member or other care-giver involvement in residential aged care settings; staff-family relationships and family satisfaction with residential care.

Method

This was a controlled before and after study involving pre and post intervention testing and comparison between intervention and control groups from two 30 bed rural high care residential aged care facilities. Staff from the intervention facility underwent case management training and resources were allocated to implement case management. General demographic information was collected about the family member and the residents. The Family Involvement Questionnaire and the Family Perception of Care Tool was used pre and post intervention to determine the level of family involvement and their perception of care provided.

Results

Visiting levels increased in the intervention site but not the control site. No significant differences were found for the two sites over the two phases but increases were seen in correspondence, attendance at social activities, overseeing staff interactions, attendance at case conferences and rate of family member decision-making about treatments or care for the intervention site. The overall satisfaction with care and the relationships increased at the intervention site but the changes were not significant.

Conclusion

Although there were no statistically significant results due to the sample size, there were positive changes at the intervention site. Case management is a potentially suitable model of care in the aged care setting.

INTRODUCTION

The national aged care campaign 'Because We Care' led by the Australian Nursing Federation, focuses among other things, on increased staffing levels in aged care facilities in Australia. If the campaign enjoys continued success, and staff levels continue to increase in aged care settings it opens the way for far better models of care than are currently employed. A case management model of care may be the panacea for all the difficulties faced by workers, residents and their families in aged care settings.

A case management model of care was implemented in a 30 bed high level residential aged care facility in rural Victoria, in response to anecdotal reports of growing staff dissatisfaction with the perceived ineffective, task focused model of care which had evolved in the facility. The case management model implemented was investigated to determine if residents and their families expressed greater satisfaction with the care provided and their level of involvement, and whether relationships with staff improved.

Case management has been defined as 'a systemic process of assessment, planning, service coordination and/or referral and monitoring through which the multiple service needs of the client are met' (Smith 1991).

BACKGROUND

Case management in aged care settings has not been widely researched or adopted in practice in Australia, despite the need for effective models of care. Literature exists concerning case management models in aged care utilised in the US, though the reason for introduction and the models themselves are vastly different (Healy and Elliot 1999; Smith 1991). Healy and Elliot (1999) and Smith (1991) describe case management as replacing bureaucratic and task focused approaches to care with a comprehensive team approach to care which instils pride and ownership among nurses. Both studies found that residents benefited from improved communication with their caregivers, timely delivery of clinical services and improved relationships between staff and families.

Case management has been used successfully in Australia for decades in community based settings, but there remains little evidence of uptake of this model in other sectors.

Studies in Australia and overseas extoll the virtues of greater family participation in care, and evidence of effective family/staff partnerships exists (Maas et al 2004; Toyle et al 1996). Family members remain involved in the lives of their relatives following admission to long-term residential care (Gaugler et al 2004; Toyle et al 1996), and studies suggest that increased family involvement impacts positively on both residents and their families. A number of studies by Hertzberg (Hertzberg et al 2001; Hertzberg and Ekman 2000) report the relationship between staff and relatives has been neglected because of approaches that centre on tasks.

AIM

A key objective of case management was to encourage greater participation in decision making for residents and their families and the delivery of holistic, integrated care. The study aimed to strengthen the partnership between staff and families with negotiated role definition rather than the accepted consultation and information giving partnership that existed. Evidence indicates that such negotiated partnerships are considered critical by families and benefit all stakeholders, especially residents (Smith 1991).

ETHICAL APPROVAL

Ethical approval for the research study was granted by the University of Melbourne Human Research Ethics Committee.

METHOD

This was a controlled before and after study with pre and post intervention testing and comparison between the intervention and control group from two 30 bed rural high care residential aged care facilities.

Residents and/or their families were invited to participate in the research project. Where the resident was not able to nominate a family member, nor consent themselves due to a cognitive deficit, nursing staff identified the responsible person and invited their participation. 76% from the intervention site and 77% from the control site agreed to participate in the study.

All potential participants were provided with a plain language statement, a consent form, a written questionnaire to obtain demographic information and the pre-test Family Involvement questionnaire and the Family Perceptions of Care Tool (FPCT).

Participants were asked to return post the signed consent and the pre-test questionnaires to the principle researcher in pre-paid envelopes. A follow up telephone call to all potential participants was undertaken to provide an opportunity for questions or address any concerns. Follow up calls at one month were made to non-respondents.

The Family Involvement Questionnaire (FIQ) measured five domains, including;

- involvement of the family member in social-emotional support activities;
- activities of daily living;
- instrumental activities of daily living;
- monitoring of care given; and
- directing care provided at the facility.

The FPCT was based on a tool devised by Maas et al (2004). The tool sought to quantify perceptions of the family and was divided into subscales including:

- overall care;
- nursing care;
- relationships; and
- environment.

Case management was then introduced at one facility for a period of six months. At the completion of the intervention period, participants at both sites were asked to complete the FIQ and FPCT again and return the surveys in supplied pre-paid envelopes, and results were compared and analysed.

INTERVENTION

A case management co-ordinator, in consultation with residents and their families, structured a model of case management and defined roles and responsibilities of each case manager. Initially all six assigned case managers were enrolled nurses with varying degrees of experience. Staff participation was voluntary and teams and residents were assigned by the case manager.

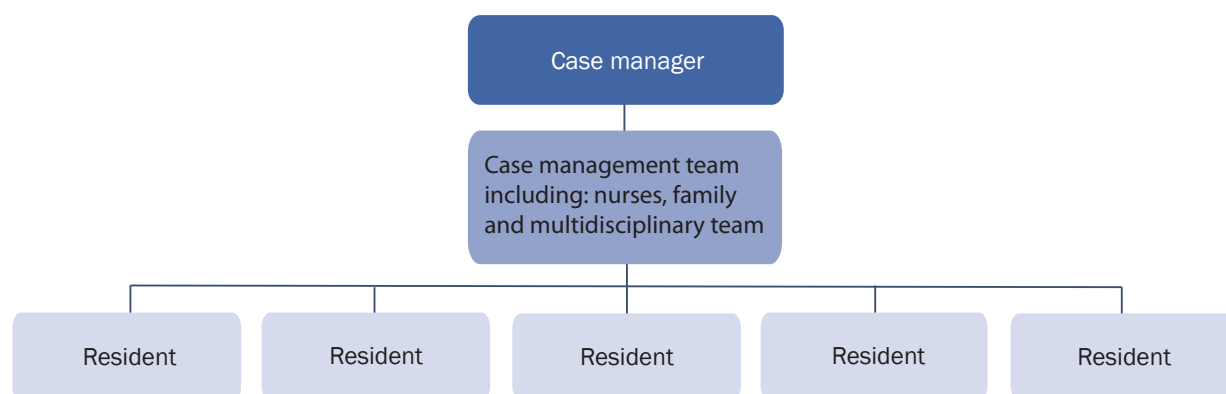
Staff at the Intervention Site then underwent six-months of case management education, implementation and restructuring of work programs. Each case manager was assigned a case management team of five-six staff from varied disciplines and levels of education and qualification (this included staff who worked in the activities program, environmental staff, and care staff who were either registered nurses or personal care attendants). A high level of staff support and consultation was available during the implementation phase.

Training and education focused on the application, aims and processes of case management methods. An explicit instruction on information gathering via biographical mapping in consultation with residents and relatives was given. Case managers were educated in the provision of holistic care, and collaboration with all stakeholders in formulating 'life' goals for residents. Interaction between nurses and families was a key element and explicitly stated as crucial to the success of the intervention.

Case managers were allowed six supernumerary hours per week to undertake case management activities, which could be taken in excess of usual clinical hours or as part of overall hours worked, but without day to day clinical responsibilities. Time spent in this six hours was focused on facilitating goal attainment, and coordinating multidisciplinary care for their five assigned residents, rather than managing the care and treatment of thirty residents and coordinating daily care staff activities which was expected as part of their usual role.

The model of case management introduced is represented in figure 1. There were six teams, with each case manager responsible for five residents.

Figure 1: Structure of each case management team.



RESULTS

Descriptive analyses using SPSS v15 were used to describe the characteristics of residents and their family members. Post-intervention, median, Wilcoxon Ranked Sign tests and McNemar tests were used to determine differences over time.

In comparing the pre and post-test level of family involvement using the Family Involvement Questionnaire, many of the items showed no change and none showed statistical significance (McNemar's Tests conducted on all items with no significant differences on any item). Those that did show changes are listed:

- There was an increase in the median number of visits of family members from the Intervention site from the pre-test month to the post test month (MED1 = 9.5, MED2= 12.0) however the difference was not significant (Wilcoxon Signed Rank Test $Z = -.439$, $p = .660$). For the Control Group the rate of visiting did not change (MED1= 14.0, MED2= 13.5, Wilcoxon Signed Rank Test $Z = -.356$, $p = 0.722$).
- There were eight items of the Family Involvement Questionnaire about social-emotional support and there were changes on two items. Family members from the Intervention Site sent more letters in the post-test period (6, 37.5%) than in the pre-test phase (2, 12.5%). They also attended more social activities at the facility (7, 44% in pre-test, 10, 62.5% in post- test). For the Control Group, three (25%) sent letters in the pre-test phase and five (42%) in the post phase and more attended social activities at the facility (3, 25% pre-test, 4, 42% post-test).

- There were six items relating to activities of daily living, of which, one item showed changes between pre and post-test. For the Intervention Group, three (19%) recorded assisting their relative with toileting in the first month and two (12.5%) did so in the second month but in the Control Group the rate of assistance reduced from five (42%) to two (20%).
- One of the five items about instrument activities of daily living showed any change. Six (37.5%) family members of the Intervention Group reported transporting their relative to outside appointments in the post-test phase in comparison with four (25%) in the initial phase. For the Control Group, three (27%) did so post-test and four (33%) pre-test. There was no change in the high rate of family members managing their relatives' financial affairs for either facility (13, 81% for Intervention Group and 11, 92% for the Control Group).
- There were six items relating to monitoring care and four showed some change. Interestingly, there was a slight reduction in family members of the Intervention Group reported overseeing of the quality of their relatives' care (12 (75%) pre-test and 11 (69%) post-test but an increase in the Control Group's reported rate (9, 75% up to 10, 91%). For the Control Group, nine (75%) stated they had overseen the condition of their relative in the pre-test phase and this increased to 12 (100%) in post-test but there was no change in reported by the Intervention Group (11, 69%). In the Intervention Group the rate they reported overseeing staff interactions with their relatives increased (9, 60% to 11, 69%) and also increased for the Control Group (8, 67% up to 10, 83%). The reported rate of talking with staff about their relative improved from 12 (75%) to 15 (94%) for the Intervention Group but reduced for the Control Group (11, 69% down to 9, 60%).
- For items relating to directing care, three of the four items showed differences. For the Intervention Group, attendance at case conferences increased from three (18%) to eight (50%) but stayed constant for the Control Group (4, 33%). There was a slight increase in the giving suggestions about ways to care for their relative for both groups (Intervention Group 6, 37.5% pre-test and 8, 50% post-test; Control Group 5, 42% up to 6, 50%). The rate of decision-making about treatments or care of their relative doubled for the Intervention Group (pre-test 4, 25% up to 8, 50% post-test) and slightly reduced for the Control Group (7, 58% down to 6, 54%).

Table 1: Comparison of Pre-Test and Post-Test FPCT Scores for Intervention and Control Groups

Subscale	Intervention Group				Control Group			
	Pre-Test Median	Post-Test Median	Z	p	Pre-test Median	Post-test Median	Z	p
Overall	66.00	73.00	-2.12	0.034	79.5	68.5	-1.295	0.195
Nursing	38.00	39.00	-0.398	0.691	41.5	37.5	-1.258	0.208
Relationships	62.5	68.5	-1.531	0.126	55.0	55.5	-0.943	0.345
Environment	80.00	84.00	-1.680	0.093	80.0	85.0	-0.535	0.593

As for the Family Involvement Questionnaire, the Family Perceptions of Care tool also failed to capture statistically significant changes. Changes were detected however after the case management intervention and are listed.

- There was an increase in satisfaction for the overall perceptions of care at the intervention site, but a decrease at the control site.
- Satisfaction with nursing care at the intervention site increased with a decrease at the control site.
- Reported satisfaction with relationships increased at the control site but showed no change at the control site.

- Both the intervention and control groups reported greater satisfaction with the nursing home environment.

Demographic information obtained from both sites was compared and showed no statistical difference between the groups. The residents ages, length of stay and cognitive status also established no differences. Comparison between the groups is depicted in table 2.

Table 2: Resident and family members basic characteristics

	Intervention Site (N=22)		Control Site (N= 20)	
Residents Characteristics				
Age	M=79 SD=10	Range 50-95	M=84 SD =10	Range 67-99
Gender	M=10 (45.5%)	F=12 (54.5%)	M=5 (25%)	F=15 (75%)
RMMS	M=14.3	Range 0-30	M=12.0	Range 0-28
RCS				
• Level 1	14 (64%)			
• Level 2	7 (32%)		8 (40%)	
• Level 3			7 (35%)	
• Level 4	1 (4%)		5 (25%)	
Length of Stay (days)	Med= 619	Range 24-2735	Med=1002	Range 70-7182
Family Member Characteristics				
Age	M=58 SD=15	Range 28-82	M=64 SD=14	Range 34-86
Gender	M=7 (32%)	F=15 (75%)	M = 5 (25%)	F=15 (75%)
Australian Born	19 (90%)		20 (100%)	
Education				
• Some Secondary	4(14%)		5 (25%)	
• High School	11(52%)		8 (40%)	
• Post-High	7(34%)		7 (35%)	
Employment				
• Retired/Not employed	9 (41%)		9 (45%)	
• Employed	13 (59%)		11(55%)	
Main Carer before admission	12 (54%)		16 (80%)	
% Lived within 10 minutes of facility	13 (59%)		9 (47%)	

DISCUSSION

While the results of the study were not statistically significant, they do suggest that the implementation of case management in aged care settings improves relations between staff and families and perceptions of care delivered.

The small sample size and resultant lack of power may have impacted on the significance of the results. Previous studies also demonstrate difficulty in capturing changed views due to lack of an instrument sensitive enough to measure shifts in attitude and perception (Robinson et al 2007).

Family participation increased in many domains at the intervention site, where case management was implemented with the exception of reported reduction at the intervention site of overseeing their relatives care, which increased at the control site. A systematic review of the literature undertaken in 2006 (Haesler et al 2006) suggests that family withdrawal from direct overseeing of care is an indicator of confidence in the caregivers, so this decrease is favourable.

It is recommended that further research of case management in aged care settings should evaluate staff satisfaction and the impact on resident outcomes. Although this study demonstrated favourable increases in both, they were not formally measured as part of the project.

A criticism of case management in aged care settings has been the ability to fund such a model. Changes to the level of funding and staffing may be achieved by the 'Because We Care' campaign providing the needed impetus and ability to initiate change.

REFERENCES

- Gaugler, J.E., Anderson, K.A., Pearlin, L.I., and Zarit, S.H. 2004. Family involvement in nursing homes: effects on stress and wellbeing. *Ageing and mental health*, 8(1):65-75.
- Haesler, E., Bauer, M. and Nay, R. 2006. *Constructive staff-family relationships in the care of older adults in the institutional setting*. A systematic review. Australian Centre for Evidence Based Aged Care (ACEBAC).
- Healy, A. and Elliot, E.P. 1999. Tips, tools and techniques. Developing case management in a nursing home environment. *Nursing Case Management*, 4(3):112-121.
- Hertzberg, A. and Ekman, S. 2000. We, not them and us? Views on the relationships and interactions between staff and relatives of older people permanently living in nursing homes. *Journal of Advanced Nursing*, 31(3):614-623.
- Hertzberg, A., Ekman, S. and Axelsson, K. 2001. Staff activities and behaviour are the source of many feelings: Relatives interactions and relationships with staff in nursing homes. *Journal of Clinical Nursing*, 10(3):380-383.
- Maas, M.L., Reed, D., Park, M., Specht, J.P., Schutte, D., Kelley, L.S., Swanson, E.A., Trip-Reimer, T. and Buckwalte, K.C. 2004. Outcomes of family involvement in care intervention for caregivers of individuals with dementia. *Nursing research*, 53(2):76-86.
- Robinson, J., Curry, L., Gruman, C., Porter, M., Henderson, C.R.Jr., and Pillemer, K. 2007. Partners in caregiving in a special environment: Cooperative communication between staff and families on dementia units. *The Gerontologist*, 47(4):504-515.
- Smith, J. 1991. Changing traditional nursing home roles to nursing case management. *Journal of Gerontological Nursing*, 17(5):32-39.
- Toyle, C., Percival, P. and Blackmore, A. 1996. Satisfaction with nursing home care of a relative: does inviting greater input make a difference? *Collegian*, 3(2):4-11.