Implementation of a team model for RACF care by a general practice

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Objective

Many general practitioners (GPs) struggle to meet the demand for their services at residential aged care facilities (RACFs). The aim of this study was to describe and examine the effect on service provision and GPs of a new model of RACF care in a rural general practice.

Methods

A mixed-method case study was used to examine the practice nurse–led team model of RACF care. In-depth, semi-structured interviews with GPs and other staff were analysed using a thematic approach. Medicare Benefits Schedule (MBS) item analysis examined service provision in the two years pre- and post-implementation of the new model.

Results

Key themes that emerged were access to care, GP satisfaction, the role of the practice nurse, the model's financial viability and lessons for other practices. Under the new model of care, residents' access to standard general practice consultations increased from 6.69 to 14.09/resident/year. At the same time, after-hours consultations were reduced from 0.16 to 0.10/resident/year. There were also significant increases in provision of Medicare quality improvement services. GPs reported that their workload and stress decreased, while their levels of professional satisfaction increased.

Discussion

This service model has much to offer GPs who are willing to engage in team care. It is an efficient model of high-quality care that overcomes key barriers associated with providing sustainable general practice services to RACF residents.

In June 2014, 176,816 people living in residential aged care facilities (RACFs; permanent and respite) received Australian government–subsidised places.[1] They represent the approximately 8.5% of Australians aged 70 years and older who now reside permanently in RACFs.[2] However, with projected increases in life expectancy, and the proportion of Australians aged 65 years and older expected to increase from 15% in 2012 to 22% in 2061,[3] the number of RACF residents is likely to increase.

The healthcare needs of RACF residents are complex. In 2010–11, 64% of admissions to RACFs required high-level care.[4] Secondary data analysis of Medicare Benefits Schedule (MBS) RACF items from 1998 to 2011 showed a significant increase in standard and after-hours consultation rates.[5] Following the introduction of Comprehensive Medical Assessments (CMAs), Residential Medication Management Reviews (RMMRs), care plans and the Aged Care Access Initiative, there have been increases in the use of MBS special items in RACFs.[5,6]

There are challenges associated with providing general practice services to RACF residents. Factors related to limited general practitioner (GP) availability in RACFs include workforce shortages, large amounts of clinical and non-clinical resident-related work, and poor remuneration.[7–11] Unsurprisingly, RACF staff have difficulty accessing private GPs; they report contacting GPs three times per shift[12] and sending residents to emergency departments (EDs) for healthcare.[13,14] A systematic review found that RACF residents are disproportionately represented in presentations to EDs and that 40% of these cases are not admitted to hospital.[15]

In Australia, there is a need for alternative models of RACF care.[16] Some have been implemented in an effort to increase RACF residents' access to primary healthcare services.[17–19] The use of specialised aged-care nurses in both the ED and RACF have resulted in improvements in some aspects of clinical care,[17,18] while a weekly RACF in situ general practice service has been linked to a reduction in ED transfers.[19] However, there may be substantial barriers to the sustainability or implementation of these models as they often require additional funding. This is particularly the case in locations where RACF staff are unable to assist, or where there is a shortage of GPs able to provide residential aged care services.[16,19]

The aim of this study was to examine a model of RACF care introduced by one town's sole rural general practice team and its effect on service provision and GPs.

Method

Setting and study design

Before 2007, the practice provided services to residents in seven small RACFs within a 34 km radius. GPs who provided RACF services were solely responsible for organising, providing and documenting care to their 'own' RACF residents. In 2007, a large RACF opened in the same town as the practice; this increased the demand for general practice services and prompted the development of a more efficient model of RACF care.

The model of care implemented in this new RACF is characterised by a general practice team approach involving a roster of GPs and a practice nurse (PN). Table 1 outlines the key features of the model. Initially, a sole PN was redeployed part time by the practice to pilot the model in one large RACF. Since then, three part-time PNs support the model in several RACFs. The PNs are based at the practice but attend the RACFs for rounds and as necessary. The new model ensures that, even in the absence of their primary GP, residents receive responsive and continuous care.

A mixed-method case study was used as it is a good method of describing a system in order to gain an in-depth understanding of how that system works.[20]

Data collection and measures

The practice manager (PM) provided aggregated MBS RACF standard and after-hours consultation items (20, 35, 43, 51, 5010, 5028, 5049, 5067) claimed by the practice during the two years pre- (2005–06) and post-implementation (2009–10) of the new model for residents of all RACFs serviced by the practice. These time frames were chosen because of the small number of consultations for some item numbers, and to avoid possible contamination from the transition of the old model to the new model, which took place between 2007 and 2008. Access to MBS quality improvement items was measured by the number of claims for Comprehensive Medical Assessments (CMAs; items 712 and 701–707), Residential Medication Management Reviews (RMMRs; item 903) and the GP Contribution to Care Plan (item 731).

A sample of six practice staff (four GPs, one PN and one PM) were invited to participate in the study, on the basis of their involvement in the decision to change the model and/or the development of the new RACF care model.

Hard copy invitations to participate in face-to-face interviews were sent to potential interviewees. The interviews sought to:

- examine why a new model of RACF care was needed
- describe and explore their experiences of the models.

Semi-structured interviews (>60 minutes) were audio recorded in 2013 and verbatim transcripts were returned to participants for checking.[21]

Data analysis

Interview data and field notes were analysed thematically using NVivo 10.[22] CM is an employee of the practice and collected the data. A reflexive approach was adopted with the supervision of the non-aligned Monash University chief researcher, BW. These two researchers independently coded the data to identify emerging themes. The researchers discussed the

Table 1. General practice RACF care pre- and post-implementation of the 2007–08 model

	Pre-2007–08 model	Post-2007–08 model
GP time for RACF	• 'Squeezed'; is additional to usual work	• GP time is quarantined on schedule of usual work • Twice weekly rounds
Responsibility for care	• GP's alone	• General practice team (GPs and PN) share responsibility • Leave covered by colleagues
Frequency of consults	• Approximately monthly	• A minimum of every three weeks with additional reviews and consults as required
Urgent needs	• Messages are left for the GP • GP has to 'find the time' to respond (eg at end of day)	• The PN is first port of call for the RACF • PN triages, troubleshoots, collects data for GP if medical intervention is required
Workload and organisation	• GP does this alone (or misses it) when opportunities arise • GP does: – all the administrative and clinical work – liaises with RACF staff, families and service providers	• GP does direct clinical work • The PN does most of the other work: – organises GPs' schedules and work – liaises with RACF staff, families and other service providers – takes notes, makes referrals, drafts care plans, collects data for health assessments, collects records for admissions, drafts advance care plans etc

PN, practice nurse; RACF, residential aged care facility

themes and how these related in an axial coding framework until an inter-rater agreement of 85% was reached.[23] Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines were used to guide the reporting of the qualitative component of the study.[21]

Ethics approval

This study was approved by the Monash University Human Research Ethics Committee (CF13/46-2013000019).

Results

Three GPs, one PM and one PN participated in semi-structured interviews. A comparison of chief differences between the old and the new models (Table 1) emerged from the qualitative interview data, along with five key themes:

- access to MBS care
- GP satisfaction
- the role of the PN
- the model's financial viability
- lessons for other practices.

Each theme is presented and illustrated with direct quotes from participants. An analysis of Medicare data pre- and post-implementation is also presented (Table 2).

Access to MBS care

Under the old model (2005–06), the practice provided services to 40 RACF residents. This quadrupled to 167 in 2009–10 (Table 2). The PM reported that during this time, GP full-time equivalent (FTE) staffing remained approximately the same: 7.5 in 2006 and 7.4 in 2009. Compared with the old model of care, the number of standard MBS (Level A and B) consultations/resident/year increased, whereas the number of Level C and D and overall rate of after-hours consultations/resident/year decreased.

In addition, under the new model, there was a significant increase in the proportion of residents who received MBS quality improvement items annually. For example, on average in 2005–06, CMAs were provided to 7.5% (n = 3) of residents/year; this increased to 55.7% (n = 93) of residents/year in 2009–10. Similarly, RMMRs were provided to 7.5% (n = 3) of residents/year in 2005–06 and 42.8% (n = 72) of residents/year in 2009–10. While the GP Contribution to Care Plan (item 731) can be claimed up to four times per year, the increase from one claim in 2005–06 to 235 in 2009–10 was substantial.

GP satisfaction

Under the old model, GPs reported:

> *… we were … doing squeezed aged care.* – Interviewee 2

> *... the GP checks their messages at the end of the day and realises, 'Oh, the [RACF] nurse has been trying to get me three or four times during the whole day', and by then it's 6 o'clock at night, and if you've got to go, you've got to tack the visit to the nursing home on at the end of the day.* – Interviewee 3

In contrast, the new model reduced GPs' administrative load, was organised and responsibility for continuity of care was shared, giving GPs space to enjoy aged care.

> *… for this resident and their family there's going to be one key GP who will be your key GP, but there's going to be a group of GPs who are going to accept care and we are going to ensure continuity of care by developing a link and the link person was a nursing person [the PN].* – Interviewee 1

> *... it's a very satisfying morning's work ... it's not hard, you feel well supported, it's interesting, low stress, and you know, financially, it's well remunerated. So you're sort of ticking a whole lot of boxes.* – Interviewee 2

The model allows GPs to provide additional services, which were associated with reduced hospital transfers.

Table 2. Medicare service items and mean GP consultation per RACF resident in 2005–06 and 2009–10

	2005–06 (24 months)		2009–10 (24 months)	
	No. of residents = 40		No. of residents = 167	
RACF Medicare service (item no.) claimed	No. of consults over 24 months	No. of consults/ resident/ year	No. of consults over 24 months	No. of consults/ resident/ year
Standard consults				
Level A (20)	15	0.19	235	0.70
Level B (35)	477	5.96	4365	13.07
Level C (43)	31	0.39	100	0.30
Level D (51)	12	0.15	5	0.01
Total standard consults	**535**	**6.69**	**4705**	**14.09**
After-hours consults				
Level A (5010)	0	0	2	0.01
Level B (5028)	12	0.15	30	0.09
Level C (5049)	1	0.01	1	<0.01
Level D (5067)	0	0	1	<0.01
Total after-hours consults	**13**	**0.16**	**34**	**0.10**

... it allows GP time to do case-conferencing and telehealth, stopping preventable hospital admissions – I'm not saying that a person never goes to hospital, but it does stop the unnecessary transport of patients to an acute facility. – Interviewee 5

The role of the PN

The PN was described as pivotal in the new model, fulfilling numerous roles. The PN:

- manages the flow of information between RACF and the general practice
- organises and leads the GP
- facilitates continuity of care of patients between GPs
- fulfils administrative tasks
- triages unforseen needs as they arise
- organises services for patients
- liaises with residents' families
- ensures services (eg CMA, RMMR) are provided in a timely manner
- prepares the team to care for newly admitted residents.

… [the PN] stays [after the GP's round] and writes up notes, photocopies drug charts that have been changed and faxes them off to the pharmacy … and gives a handover … that frees up the GP's time and makes it much more attractive to be able to go in [to work in the RACF] it's all organised, it's really efficient, we can see 30 to 40 people in a session. – Interviewee 3

Financial viability

The respondents commented favourably on the financial viability of the model.

The average GP sees ... tops, 30 patients per day in consulting – that's two sessions. And here, you see a minimum of 30 patients in one session and get paid more for those 30 patients than you get paid for 30 patients in a day in consulting. – Interviewee 2

It makes a lot more sense to have a nurse being paid at $30 an hour writing up the notes when the GP could leave the building and go and start seeing patients and be generating $100 an hour ... – Interviewee 3

Lessons for other practices

Interviewees outlined the factors they believed are required for the model to work in other practices. Respect for team members and clear communication are essential. The PN's competence and people skills are important factors. Finally, the general practice's openness to change and the RACF's acceptance of the model are necessary for success.

It was about having a model that could respond to the volume in an efficient and sustainable way … – Interviewee 3

Discussion

Demands for general practice services can only be expected to increase with increasing numbers of RACF residents whose healthcare needs are complex.[3,4] The team model of RACF care described above offers possibilities for general practices struggling to meet these demands. The PN's role as chief contact for RACF staff, and conduit for flow of communication between RACF and the practice, enables timely responses to RACF residents' needs. With the PN's support, GPs are free to meet demands in the RACF and their regular practice. GPs report being highly satisfied with the model. In a practice with multiple GPs, the model offers improved resident access to continuous care, even when unforseen needs arise, without having to increase GP FTE or overburden individual GPs.

This model promotes the use of standard MBS consultation item numbers, reducing after-hours consultations and longer MBS consultation item numbers. Taylor et al[5] reported a 52% increase in RACF MBS after-hours services in the 13 years to 2001. While this increase may demonstrate that GPs have greater flexibility to conduct their RACF visits after hours, as Taylor et al[5] postulate, our findings suggest after-hours visits may be a result of 'squeezed aged care', where GPs have no alternative times to visit. It may also be associated with reduced communication with key RACF staff who are not present after hours.[5]

The strength of this model, compared with other service interventions aimed at improving primary healthcare provision in RACF services,[17–19] is that there is continuity of care, a focus on quality, and that GPs are resourced and supported. It has been suggested that the shift to an increased number of Level A and B consultations and the stagnation of lengthy consultations is contradictory to the increasing complexity of RACF residents' health needs.[5] We suggest that the proportional shift from Level C/D to Level A/B care, and the decrease in after-hours consultations, may result from more frequent visits for planned care. In addition, improved continuity associated with regular GP rounds and PN follow-up is likely to be associated with improved quality of care, but this needs to be validated with further research.

RMMR is associated with a significant reduction in medication burden.[24] Taylor et al[5] reported an annual RMMR rate in 2010–11 of 0.36/resident. This compares with 0.43/resident under our new model of care in 2009–10. While there have been subsequent changes to the RMMR incentives, the increase in RMMR, CMA and GP Contributions to Care Plan suggests that the new model may be associated with improvements in the quality of GP services in RACFs.

Our findings demonstrate the important role of practice staff in developing new approaches to care in response to changing local needs. We found that the role of the PN was acceptable and feasible to GPs, and this is consistent with reports of PN-led chronic disease management programs.[25] The coordination of care between RACF staff and the PN means GPs are fully informed of residents' changing needs, and that they are supported to respond without too much interruption to their workload. This model can be applied to more than one RACF and does not preclude residents from having a GP of their choice. Residents can choose

their GP within the practice; alternatively, the RACF may have more than one visiting GP. The latter may not be an option in small communities where there is often limited GP availability, and so, fortuitously, unlike other GP aged care models, this may lead to improved continuity of care when residents are admitted to an RACF.

In focusing on the experience of one general practice, this study has limitations. An increase in general practice services to RACFs has been associated with a decrease in transfers to ED services;[19] some interview data in this study support this. The data from the study by Taylor et al[5] were age and sex standardised. It may be that the resident group in this study is significantly demographically different to that population. While participants in this study reported that the model is financially viable, a larger study that includes the views of RACF staff, residents and their families, and the economic and care outcomes, is needed to fully evaluate the effectiveness of this model in terms of impact on quality of care relative to need. In addition, the qualitative data are subject to interviewee selection and recall bias and so these findings need to be validated in a multi-site study.

Conclusion

RACF residents may benefit from increased access to primary care where suitable general practices adopt a team model of care with services organised and managed by a PN. GPs may experience increased work satisfaction in this collaborative, team-based model of care where time is quarantined and a PN structures their RACF workload. As demand for care in RACF is increasing, it is useful to further explore models of care (outside traditional methods) that are attractive to GPs and result in improved care for RACF residents.

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