Discussion

In our study, the overall prevalence of MCR syndrome was found to be 9.6%, which is slightly lower compared to the pooled analysis of 12% in the Chinese population.1 In addition, the trend of prevalence according to age (ie, increasing with age) and sex (ie, no significant difference) in our study is consistent with previous findings. Results of our logistic regression showed conditions such as stroke, coronary heart disease, type 2 diabetes, and severe depression to be associated with MCR syndrome, which is in agreement with previous findings.6,8–10 In addition, we found a significant association of osteoarthritis (a suggested risk factor for dementia)1 with MCR syndrome, which has not been previously reported. We did not find any significant association of hypertension with MCR syndrome (mixed findings were reported previously).5,6 Among the lifestyle factors, weakness and smoking were found to be associated with higher odds of MCR syndrome. Smoking is a known risk factor of MCR syndrome.5,9 Weakness as characterized by low grip strength is well known to be associated with poor cognitive function. Past studies have shown obesity and sedentariness to be associated with higher risks of MCR syndrome.6,8 However, we did not find any significant association for obesity and sedentary behavior with MCR syndrome. One of the reasons could be the difference in assessment methods.

Conclusion and Implications

With population aging, the global burden of Alzheimer’s disease and related dementias is growing, and it is particularly so in a country like China with an increasing number of older adults. The prevalence of MCR syndrome or predementia stage was found to be very high in the Chinese population. The various factors we have identified to be associated with the risk of MCR syndrome in a large community-dwelling cohort of Chinese older adults should be further investigated.

References

common,\(^1\) and residents complain about superficial social connections in these settings.\(^2\) Despite a desire among residents for more purposeful activities, recreational programming provided overall trends toward entertainment and distraction, rather than opportunities for meaningful contributions or connections.\(^3\)

Peer mentoring may allow residents to reshape their social worlds in ways that reflect their agency. Peer mentoring is a supportive relationship between 2 individuals who share a common experience or characteristic.\(^4\) Given the success of this approach in other settings,\(^5,6\) we developed a peer mentoring program for use in long-term care, called Java Mentorship. The program involved resident and community volunteer mentors who met weekly for a team meeting and education. The program was facilitated by a recreation therapist or volunteer coordinator who used standardized education modules and a training manual. The 26 education modules included learning on how to be a mentor, for example, how to engage passive mentees who did not speak much or how to support someone who was grieving. After each team meeting/education session, resident mentors and community volunteers paired up to visit isolated residents. During mentor visits, emotional support was provided, educational materials were shared, and mentees were encouraged to attend other relevant programs that were offered. This article focuses on the scientific outcomes of a feasibility study on the program implementation in 10 Canadian homes.

**Methods**

We evaluated the program using a mixed-methods, pre-post design. To act as mentors, residents needed to be able to speak English and understand simple instructions. Surrogate decision makers provided consent for resident mentors who were not cognitively competent (\(n = 9\)). Outcome data on the resident mentors were collected at baseline and at 3 and 6 months. We assessed depression (primary outcome) using the Geriatric Depression Scale Short Form\(^7\) and loneliness using the 6-question UCLA Loneliness Scale.\(^8\) Purpose in life was assessed by the Life Engagement Test, social identity with the Single-item Measure of Social Identity, and sense of belonging by a psychological subscale of the Sense of Belonging Scale. A post-study survey used open- and closed-ended questions to evaluate mentors’ experiences. The study was approved by the university and local institutional research ethics boards.

**Results**

We enrolled 48 resident mentors in 10 of the 13 invited long-term care homes. The intervention was implemented as outlined in the training manual in 8 homes. The mean age of the mentors was 80 years, and 88% were female. At 6 months compared to baseline, we retained 28 mentors and observed significant decreases in the depression and loneliness scores (Table 1).

In the post-study surveys, mentors described increases in confidence due to the training provided. They also described some challenges encountered, for example, visiting with less verbal residents. They rated highly the camaraderie and the ease of use of the program materials. The importance of making a difference in the lives of their peers was reflected in their interviews. One mentor described the personal impact of helping others: “It’s changed my life. It makes me feel like I am needed.”

**Discussion**

These novel findings suggest the potential of peer mentoring as an approach to improve mental health in long-term care. Although we had issues with retention, which is not surprising given the frailty of this population, the scientific outcomes are promising, especially considering the recalcitrant nature of loneliness and depression in these settings.\(^9,10\)

There are several possible explanations for the lack of significant changes in other measures. Given the modest effect sizes, the study may have been underpowered. Alternatively, a longer duration of follow-up may be required to observe changes in these constructs.

As this was a pre-post study, there are several limitations, including the lack of a control group and a potential Hawthorne effect. Furthermore, in the absence of responsiveness data, we are unable to determine if the changes would be considered clinically significant. Experimental research exploring the role of mentoring in these settings is warranted.

**Conclusions**

To our knowledge, this is the first study to examine the delivery of peer mentoring using a team approach within long-term care homes. In these settings, residents are typically considered passive recipients of care and much time and energy are devoted to coping with illness rather than cultivating strengths. Resident mentoring has the potential to destabilize these practices. Although the concept of offering residents volunteering opportunities is not new, a formal role that includes extensive mentoring education and team support is unique. Developing quality relationships is difficult, despite the available social programs and support from staff. Residents who are lonely may benefit from the meaningful connections made through helping others. Peer mentoring may provide an opportunity for people living in long-term care homes to contribute in a purposeful way and improve their mental health and quality of life.

**Acknowledgments**

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**References**


**Table 1**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Linear Mixed Model (LMM) Results</th>
<th>(B)</th>
<th>(SE)</th>
<th>(P) Value</th>
<th>Effect Size, d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatric Depression Scale Loneliness</td>
<td></td>
<td>-0.97</td>
<td>0.49</td>
<td>.048</td>
<td>0.30</td>
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<tr>
<td>Life Engagement Test</td>
<td></td>
<td>-1.66</td>
<td>0.62</td>
<td>.01</td>
<td>0.23</td>
</tr>
<tr>
<td>Social Identity Measure</td>
<td></td>
<td>-0.65</td>
<td>0.67</td>
<td>.33</td>
<td>0.14</td>
</tr>
<tr>
<td>Sense of Belonging Scale</td>
<td></td>
<td>0.51</td>
<td>0.43</td>
<td>.24</td>
<td>0.18</td>
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</tbody>
</table>

\(B\), regression model coefficient; \(SE\), standard error. Effect size is reported as Cohen d.
The Presence of a Geriatrician in a Nursing Home Could Prevent Hospitalization

In Switzerland, general practitioners mostly provide medical care in the nursing home (NH). They generally work in their own practice, which is not located in the NH. In case of an emergency, the NH resident is often transferred to the emergency room if the hospitalization is deemed necessary. In the NH of the French part of Switzerland between 2010 and 2014, the mortality rate but has no effect on the risk of fall. Previous research has shown that the presence of an ambulatory geriatric team decreases the incidence of hospitalization without an increase in the incidence of death and fall between the GER and noGER periods did not reach statistical significance. Table 1 shows that the presence of an ambulatory geriatric team decreases the incidence of hospitalization without an increase in the incidence of death and fall between the GER and noGER periods did not reach statistical significance.

Table 1

<table>
<thead>
<tr>
<th>Outcome</th>
<th>All (290 stays)</th>
<th>NoGER (141 stays)</th>
<th>GER (149 stays)</th>
<th>IRR 95% CI</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalization</td>
<td>57 0.08</td>
<td>37 0.13</td>
<td>10</td>
<td>0.34</td>
<td>0.19-0.60</td>
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<tr>
<td>Death</td>
<td>101 0.14</td>
<td>34 0.12</td>
<td>67 0.15</td>
<td>1.24</td>
<td>0.81-1.94</td>
</tr>
<tr>
<td>Falls</td>
<td>565 0.78</td>
<td>233 0.83</td>
<td>332 0.74</td>
<td>0.74</td>
<td>0.90</td>
</tr>
</tbody>
</table>

In this letter, we report a retrospective before-after study that examined the effect of the presence of a geriatrician in an NH of the French part of Switzerland between 2010 and 2014. We compared the rate of hospitalization, falls, and deaths between a 2-year period without a geriatrician (noGER) and a 3-year period with a geriatrician working in the NH (GER). The geriatrician had his practice in the NH and was thus physically present during the week and reachable by phone during nights and weekends. He assumed acute care, performed comprehensive geriatric assessment for each resident at admission, and trained the NH health care staff (nurses and physiotherapists) about common geriatric syndromes, such as falls, delirium, dementia, and malnutrition. Once per week, he also visited the residents and reviewed the medications based on the STOPP-START criteria.

As some residents were already present when the GER period began and some stayed more than once in the NH, we used the stays as statistical units for analyses. The length of stay in NH was only presented for the overall sample, as it was truncated for the GER period. Incidence rates (IRs) were computed as the number of events occurring during a given period divided by the number of residents’ stay multiplied by the number of years of the period’s duration (number per 100 stay-years). Incidence rate ratios were obtained by dividing IRGER by IRnoGER, and univariate Poisson regressions were performed to compare the evolution of the incidence of the outcomes.

The analysis included 290 stays. The mean age was 85.9 ± 7.0 years, and most were female (N = 206, 71%). The mean length of stay in the NH was 395.5 ± 726.6 days. No statistically significant difference was observed between the GER and noGER periods in terms of age (P = .72) and gender (P = .41). The risk of hospitalizations decreased by 66% during the GER period (P < .001). The number needed to treat to avoid 1 hospitalization was 12 (Table 1). The length of hospitalization was not statistically different between the 2 periods (P = .44). The difference of incidence of death and fall between the GER and noGER periods did not reach statistical significance (P = .30 and P = .11, respectively) (Table 1).

This study shows that the presence of a geriatrician decreases the incidence of hospitalization without an increase in the mortality rate but has no effect on the risk of fall. Previous studies have evaluated several strategies to decrease the rate of hospitalization. In a systematic review, Graverol et al showed that the presence of an ambulatory geriatric team was more efficient than procedures structuring or standardizing treatment in preventing hospitalizations from NH (reduction of 42% to 48%). A recent intervention study showed no effect of the implementation of an educational and

The authors declare no conflicts of interest.