Final Report to

THE DRUMMOND FOUNDATION

March 20, 2002

The Effectiveness and Efficiency
of a
Structured Adult Education Group Intervention

“A TIME FOR ME”

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Table of Contents

1. Executive Summary............................................. page 1

2. Background to the Study ....................................... page 2

3. Methodology.......................................................... page 2

4. Quantitative Findings ............................................ page 3

5. Qualitative findings ............................................... page 5

6. What we have learned .......................................... page 5

7. Dissemination....................................................... page 6

8. Next steps .......................................................... page 6
1. Executive Summary

Since 1981, there have been many qualitative studies of the health promotion program “A Time For Me” (ATFM) indicating positive, life-changing effects for the senior participants.

In this study, both quantitative and qualitative measures were used, but the quantitative measures did not capture the effects. The results did indicate, however, that when the participants were in the program ATFM, they cost the health and social services system significantly less, while maintaining their level of wellness.

This significant decrease in health and social service system costs, plus the enthusiastic reactions of the participants, their families and the program and health professional staff, has encouraged us to seek funding for a comprehensive study with a larger sample, and more sensitive instruments to measure changes in quality of life.
2. Background to the Study

This project was the first phase of a comprehensive study to determine the effectiveness and efficiency (expense minus costs averted) of the structured adult education group intervention, “A Time For Me” (ATFM), as an adjunct to usual health care, for improving the quality of life of seniors with medical conditions.

A Time For Me (ATFM), an intervention fostering personal growth and increasing self-esteem in older persons, uses an educational approach designed to focus on strengths. It enables seniors to develop new skills, increase their self-confidence and self-esteem, and thus better manage their lives. A three year qualitative study concluded that, “given opportunities for personal growth, through reflective learning and dialogue in groups, seniors can and do take charge of their lives, find purpose in their lives and improve their well-being.”

A manual, The Senior Connection: a manual for personal growth and senior peer helping, (Samuels and Cole, 1988) sets out in detail the process and specific activities for a 20 hour group experience. Group leaders are usually health professionals, although non-professional group members can, with further training, become leaders.

Although there have been extensive, continuing applications in the community since 1981, ATFM has seldom been used in health settings, and there are no quantitative evaluations. In this pilot study, we expanded the application of ATFM to health settings and evaluated its impact quantitatively.

We anticipated that this relatively low tech, inexpensive approach to improve the well-being of seniors would pay for itself within one year, and would be more effective and less expensive than usual on-demand care.

3. Methodology

A 3-arm randomized controlled longitudinal trial, stratified by level of depression, was selected as the most appropriate and rigorous approach to meet the objectives of the study.

We originally budgeted the use of the Drummond funding for the first phase of a larger study. We proposed a sample size of 20 participants in each of the 3 groups. Sample size calculations were detailed in the original proposal. Data from an earlier descriptive study indicated that adequate power would require at least 50 subjects per group.
Given the funding available, we decided to proceed with a smaller sample of 10 participants in each of the three groups.

The study was conducted at North York Hospital Seniors Health Center (NYSHC). Most of the participants were connected to their Day Hospital. Some were referred by community agencies in their catchment area. The staff was supportive and appreciative of the opportunity for new programming and for evaluation.

The 34 seniors who met the eligibility requirements and consented to be in the study, were randomly stratified into the three study groups: Group one participated in ATFM, Group two was an informal social group, and group three carried on with their usual care. (appendix 1)

We set out to measure levels of depression, well-being, health, and impact on health and social service utilization. Participants were tested before week one, after week 8, and again after 16 weeks.

Effectiveness was defined as: improved scores in the SF12 Health Survey measure; improved scores in the Geriatric Depression Scale; and improved scores in sub scales of the Ryff Measure of Psychological Well-being.

Efficiency was defined as the expense of the intervention minus the dollar value of decreased usage of the health and social services, as measured by the Health and Social Service Utilization Inventory.

The study was reviewed by and received approval from the Ethics Committees at University of Toronto and North York General Hospital.

4. Quantitative Findings

The study showed economically important differences, even though there were no statistically significant differences.

1. At the initial follow-up, there was an economically significant reduction in expenditures for the use of services by the participants who received the intervention, ATFM. This reduction reverts back to baseline expenditures 8 weeks after the completion of ATFM. (appendix 2)

2. Despite reduced utilization, the level of wellness was maintained.

3. There were no statistically significant differences among the 3 groups, as measured by the Geriatric Depression Scale (GDS), the SF 12, or Ryff’s Scales of Psychological Well-being. (appendix 3)

We analysed the initial scores of those who completed the study and those who did not, in order to understand the effects of missing data. We examined responses at intake for people who completed all the questionnaires and for those who did not. This analysis gave the following information:
1. Of the 34 persons randomized to the three study groups, 27 completed the study (79%).
2. Those who completed were similar to those who dropped out, in terms of gender, age, type of living accommodation, living arrangements, marital status, and social role of the caregiver or recipient, income and experience with major life changes.
3. Those who completed the study were similar to dropouts in purpose in life, personal growth, general health, physical function and social function.
4. The completes were significantly less depressed, and had higher mental health scores than those who dropped out. (appendix 4)
5. Those who completed the study used fewer health and social service resources in the previous year, compared with those who dropped out of the study. Completes were, therefore, a “healthier group” to begin with. (appendix 4)

**Discussion**

The fact that the health results were not statistically significant could be due to:
1. the small sample size;
2. the “healthiness” of the sample population (we excluded those with high scores in the GDS);
3. the possibility that the measurements were not sensitive enough in this population;
4. the people who didn’t complete the study had greater initial pathology, reducing the chance of finding a difference;
5. an intervention which doesn’t necessarily change health status, although it would appear to reduce health and social service utilization.

The overall results were encouraging. The effect of reducing utilization and therefore expenditures overall, while maintaining a level of wellness, is similar to patterns reported by Browne et al 1999. People maintain similar health status yet ask for help and use the resources less when they receive more psychosocial care. (appendix 5) So it is for the ATFM group, compared with the attention group alone, or the control group.

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5. Qualitative Findings

Focus groups and interviews were conducted with the participants, the staff at NYSHC and the facilitators. The qualitative findings reflect the self-reports of the ATFM participants, and the observations of the facilitators of ATFM, and the staff at North York Seniors Health Center (NYSHC) (appendix 6).

A man with severe Parkinson’s was lively, involved, and connected during the sessions and looked forward to each week. He reported that he had “the best eight weeks in his life”. When he finished the program, he suffered serious decline, and was unable to complete the last evaluation. Another very frail, almost comatose man became alert, involved, and connected to the group. He said “when you feel loved, life is better”. He became hospitalized and the group remained connected to him through letters and phone calls. A 93 year old woman never missed a session, and declared, “I find myself enjoying again”.

Thus we are left with the question, “what does it mean when the surviving participants (family and staff) feel that the health results are spectacular, and yet the health results as measured by established scales seem unspectacular?

6. What we have learned

- The intervention, ATFM, is perceived as helpful by participants, relatives, and staff.
- As in several previous studies of psycho-social interventions in health care, use of services diminished during the intervention. Given the low cost of ATFM, there would be overall savings to the health care system. This requires further study.
- This method of studying a psycho-social intervention by a randomized trial, was acceptable to staff and participants in a large urban general hospital, with an extensive seniors health center.
- Several methodological issues were identified for improvement in future studies:
  1. We need to include participants who have greater pathology (e.g., more depressed), and/or are living alone;
  2. We need to stratify for utilization of health services at intake, to ensure a balance of utilization in all groups;
  3. We will search for measurement instruments which are more sensitive to change in this population.
• We have established that it is feasible to carry out a randomized trial of ATFM that is ethical and scientifically acceptable in a health care milieu. Any future trial now requires adequate power (sample size) to detect clinical differences as well as differences in utilization.

7. Dissemination

• Presentations have been delivered to the Geriatric Rounds at North York General Hospital, to the Connecting Seniors Board of Directors, and to the Institute for Human Development Life Course and Aging at the University of Toronto.
• An abstract will be submitted to “Gerontovida 2002”, a Pan-American gerontological conference in Havana, Cuba, in May, 2002.
• We are considering a submission to an appropriate Canadian journal.

8. Next steps

• An opportunity for the “attention” and usual care group participants to participate in the ATFM is being offered in April, 2002.
• Based on the guidelines outlined above, we intend to seek funding for a full scale randomized trial of ATFM.
For a comprehensive study with adequate power, a sample size of 153 people is necessary, meaning 51 people in each of the three study groups.
Quantitative Results
Annualized Mean Health and Social Services Utilization Expenditure by Treatment Group

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<tr>
<th>Direct Cost Excluding Hospital Cost</th>
<th>Group</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Time 1</td>
<td>$7,570.61</td>
</tr>
<tr>
<td>Time 2</td>
<td>$4,985.70</td>
</tr>
<tr>
<td>Time 3</td>
<td>$8,056.10</td>
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</tbody>
</table>
## APPENDIX 3

### Quantitative Results

**SF12 (Mental Health)**

<table>
<thead>
<tr>
<th></th>
<th>GRP 1</th>
<th>GRP 2</th>
<th>GRP 3</th>
</tr>
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<tbody>
<tr>
<td>T1</td>
<td>20.88</td>
<td>18.64</td>
<td>19.39</td>
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<td>T2</td>
<td>17.22</td>
<td>19.22</td>
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</tr>
<tr>
<td>T3</td>
<td>17.07</td>
<td>17.67</td>
<td>20.22</td>
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Quantitative Results
Geriatric Depression Scale
Completed Study

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>Mean score</td>
<td>2.67</td>
<td>5.57</td>
</tr>
<tr>
<td>t = 2.545</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p = 0.016</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(the higher the score, the greater the depression)
APPENDIX 5

Quantitative Results
*Browne, Gafni Model*

<table>
<thead>
<tr>
<th></th>
<th>More</th>
<th>Same</th>
<th>Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>More</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Same</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Less</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>


APPENDIX 6

Qualitative Results
Study Participants’ Self Evaluation

• ATFM participants in session 8
  ‣ A feeling of family
  ‣ I feel happier after each group
  ‣ More restful and peaceful in myself
  ‣ It felt good to be wanted
  ‣ Better at managing my life
  ‣ I have more confidence in myself
  ‣ Has made me think, really think, and I find there is so much more to life --
  ‣ Since I don’t get out much, I find myself enjoying again
  ‣ I feel so good, so energetic, so strong

Qualitative Results
Facilitators’ Observations

• “This population” of seniors
  ‣ physical and emotional support
  ‣ eager to obey
  ‣ came together as a group in session 5

• Case examples
  ‣ person with Parkinson’s
  ‣ person who “slept” and woke up
  ‣ 93 year old
Qualitative Results
Staff Observations

• Frailty of Clients
• First ATFM in a clinical setting
  – Advantages:
    • Clients feel safe and secure
    • access to professional staff
    • provides continuity of care
    • supports partnership between health care and community sectors
  – Disadvantages:
    • client attachment to setting
    • difficult for staff to “let go”