

Une intervention communautaire pour traiter la dépression chez les personnes âgées

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Dans le cadre de ce projet, on a piloté et raffiné une intervention communautaire de nature comportementale destinée aux personnes âgées déprimées. Fondée sur l'ouvrage de Lewinsohn intitulée *Control Your Depression*, l'intervention consistait ici en une bibliothérapie adaptée à la population visée, nécessitant un contact moindre assuré par l'entremise d'infirmières de soins à domicile. On a testé et raffiné l'intervention grâce à une série de trois études de base comportant des caractéristiques multiples et deux participants chacune. Chaque série comprenait six séances de thérapie hebdomadaires de base et un suivi de trois mois. La série A a servi à vérifier la faisabilité de l'intervention. La série B a servi à étudier le rôle des activités agréables en tant que point d'ancrage du traitement. La série C a servi à reproduire les conclusions de la série B et à tester l'intervention dans sa version définitive. On a constaté une réduction de la dépression au terme du troisième mois du suivi. Ces résultats indiquent que ce type d'intervention peut être réalisé par des infirmières à domicile auprès de populations mal desservies et sujettes à la dépression.

Mots clés : bibliothérapie, dépression, personnes âgées, populations mal desservies

A Community-Based Intervention for Treating Depression in Seniors

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This study piloted and refined a community-based behavioural intervention for depressed seniors. The intervention, based on Lewinsohn's *Control Your Depression*, was administered in bibliotherapy format adapted for seniors. It was delivered in a minimal-contact format by home care nurses. The intervention was tested and refined in a series of 3 multiple-baseline studies, each with 2 participants. Each series consisted of baseline, 6 weekly treatment sessions, and 3-month follow-up. Series A tested the feasibility of the intervention. Series B examined the role of pleasant activities as a pivotal part of the treatment. Series C replicated the findings of series B and tested the final version of the intervention. In all the series, there was a reduction in depression that remained at 3-month follow-up. The results indicate that this form of intervention can be supported by home care nurses working with an underserved population that is prone to depression.

Keywords: Aging, bibliotherapy, care delivery, cognitive behaviour therapy, depression, elder health, underserved populations

Although older adults are an extremely heterogeneous group, there are some commonly anticipated life changes that occur with advancing age. One of the most significant changes is alteration in overall health and functional ability (Karel, 1997). Poor health and functional impairment tend to be associated with depression and loss of the ability to engage in enjoyable activities (Freyne, Keogh, Kelley, & Wrigley, 2005; Zarit, Femia, Gatz, & Johansson, 1999). Depression is one of the most common psychological disorders among seniors (Rapp, Parisi, Walsh, & Wallace, 1988) and is reported to be three times greater among seniors with physical disabilities than those without (Turner & Noh, 1988). While it might be tempting to conclude that it is disability that leads to depression, the relationship may be bidirectional: Depression itself may actually increase the risk of disability and hamper recovery from temporary conditions (Freyne et al., 2005; Turner & Noh, 1988).

Some researchers have suggested that functional impairment constitutes the mediational link between physical illness and depression. Williamson and Shaffer (2000) propose an Activity Restriction Model of depressed affect, arguing that physical impairment restricts one's ability to

engage in routine and pleasant activities, a disruption that can lead to depression. In a similar vein, Zeiss, Lewinsohn, Rohde, and Seeley (1996) postulate that physical impairment, by interfering with activities that are reinforcing, may create susceptibility to depression. Moreover, there is evidence that re-engaging in activities can help alleviate depression in older adults (Greaves & Farbus, 2006).

Lewinsohn has proposed a model (e.g., Lewinsohn, 1976; Lewinsohn & Gotlib, 1995) that is useful for understanding the links between disability and depression. According to this model, a low rate of positive reinforcement in the person's environment is an antecedent for a depressive state. For example, a negative life event, such as bereavement or disability, can set in motion a series of situations whereby the person's environment lacks positive reinforcement and become fraught with daily troubles. Certain negative life events, such as disability, restrict the potential for corrective behaviours. Lewinsohn has argued that a reinstatement of positive activities could disrupt this downward spiral of depression and inactivity. Lewinsohn's treatment model entails a reinstatement of positive activities.

A serious problem for depressed seniors, however, is access to treatment, and this problem is magnified by disability. Efforts to modify traditional therapy for use with older adults (e.g., Floyd et al., 2006; Scogin, Hamblin, & Beutler, 1987) have primarily taken two forms: self-administration, and delivery by non-mental health professionals. For example, Scogin et al. (1987) have introduced a more deliverable self-administered alternative to depressed seniors. In their "bibliotherapy" intervention (i.e., in which written material is used as a form of treatment), participants follow the exercises in Burns's (1980) book, *Feeling Good: The New Mood Therapy*. Scogin et al. (1987) report a significant reduction in depressive symptoms among their participants. Other "minimal contact" interventions have also involved the training of non-mental health professionals to deliver treatment. Such interventions have been found to be effective (e.g., Lamer, Jonkers, Bosma, Diederiks, & van Eijk, 2006; Lichtenberg, Kimbarow, MacKinnon, Morris, & Bush, 1995; Thompson, Gallagher, Nies, & Epstein, 1983). Self-administered bibliotherapy has also been found to be effective in increasing self-management ability and preventing age-related decline in frail older persons (Frieswijk, Steverink, Buunk, & Slaets, 2006).

Cognitive-behavioural interventions have been found to be particularly efficacious when delivered in a self-administered bibliotherapy format (e.g., Cuijpers, 1998; Floyd et al., 2006; Floyd, Scogin, Kendree-Smith, Floyd, & Rokke, 2004; Scogin, 1997; Scogin et al., 1987; Scogin, Jamison, & Gochneaur, 1989). This minimal-contact model is a positive

contribution to the provision of mental health services: It is innovative, cost-effective, efficacious, and flexible.

In line with this evidence, the present study was designed to implement and evaluate an alternative form of intervention for the underserved depressed elderly. This intervention combines various elements of previously validated treatment approaches to target this group, with the support of home care nurses. Cognitive-behavioural treatment was chosen because of its particular suitability for older adults with the dual affliction of depression and functional impairment. Drawing from Lewinsohn, Munoz, Youngren, and Zeiss's (1986) self-help book, *Control Your Depression*, we developed a bibliotherapy intervention to be self-administered in six sessions, with a suggested rate of one session per week. The topics covered in each of the six sessions are as follows:

1. What is depression?
2. How thoughts and actions influence the way we feel.
3. Keeping track of pleasant activities.
4. Increasing pleasant activities.
5. Decreasing negative thoughts.
6. How to maintain the gains made.

The treatment was designed to be implemented by nurses who provide a community link to underserved older persons with medical conditions, physical impairment, and depression. The fundamental goal of the intervention was to reduce depression. Our research piloted a community-based intervention delivered by nurses to a difficult-to-reach population. We hypothesized that the intervention could benefit seniors with health problems who are assisted by nurses through home care agencies or medical-aid programs but who are unlikely to seek psychological care on their own.

For this project, we partnered with a home care organization active locally, the Victorian Order of Nurses (VON). The VON is a national agency serving the underreached elderly. Although its assistance is medical in nature, the agency maintains close links to a sub-population of elders who are particularly vulnerable to developing depressive disorders. Its personnel are health professionals, typically registered nurses, who deliver the service in patients' homes. Medical services are extended to older persons who do not require hospitalization for their medical condition but do require outpatient health maintenance. The nature of the service varies according to the client's needs. VON nurses enjoy good rapport with their clients and it was believed they could easily incorporate a psychological treatment as an element in their established routines.

Method

Design

The study involved a multiple baseline design of the across-subjects variety. The multiple baseline approach is a single-subject experimental design used to infer a cause-effect relationship between an intervention and a dependent measure (Goodwin, 2007; Ray, 2006). It is used frequently when a reversal-replication (or ABAB) type of single-subject design is unfeasible because the changes produced by the intervention cannot be reversed by withdrawal of treatment (Goodwin, 2007; Ray, 2006). This was the case with the present study, in which the skills taught could not subsequently be “untaught” in a withdrawal phase. The procedure consisted of collecting a baseline measure of depressed mood, then introducing the six-session bibliotherapy intervention and assessing changes in mood concurrent with its implementation. The across-subjects version of the multiple baseline design requires a minimum of two participants in a series. Finally, a follow-up assessment of mood was made 3 months after completion of the intervention.

The study consisted of three series, presented here as A, B, and C. Series A was designed to examine the feasibility and effectiveness of the bibliotherapy intervention. Series B examined the unique role of reinstating pleasant activities as a key element in the intervention. Series C was designed to replicate the results observed in series B. In each series, VON nurses identified two individuals suitable as research participants and spent about 15 minutes per week with each, providing support with and clarifying the program material.

Participants

The participants were six VON clients who were receiving home medical care for a variety of chronic and acute health conditions. They were referred to the study by the VON because of presenting depressive symptoms. The study was approved by the university's research ethics board, which required informed written consent by all participants and nurses. Individuals receiving other forms of psychotherapeutic intervention were excluded from the study, with the exception of those who had been stabilized on pharmacological treatment. Other exclusion criteria were definitive cognitive impairment and serious suicidal tendency. It should be added that none of the participants experienced interruption of VON medical services during the course of the intervention.

Measures

Screening instruments. Participation in the study required that seniors be depressed but have no cognitive impairment. The Nurses' Observation Scale for Geriatric Patients (NOSGER; Spiegel et al., 1991) was used to

guide nurses in identifying depression in their clients and in making appropriate referrals to the study. The Modified Mini-Mental State Examination (3MS; Teng & Chui, 1987) was used to screen for cognitive impairment. This instrument assesses the following domains: orientation to time and place, registration, attention, memory, language, and visual construction. These two instruments were administered once prior to commencement of the study. In addition, seniors were asked to rate their mood on a daily basis using a nine-point Likert-type scale ranging from *extreme sadness* to *feeling great*. This mood rating was used to establish a baseline of mood prior to treatment, to satisfy the criteria of the multiple baseline design. Participants were instructed to complete this mood rating once a day at the same time of day, preferably at bedtime.

Outcome measures. The following two measures of depression were used to track depressive symptoms throughout treatment and at follow-up: the Geriatric Depression Scale (GDS; Brink et al., 1982), a self-report measure of depressive symptoms; and the Hamilton Rating Scale for Depression (HRSD; Hamilton, 1960; Moritz, Meier, Hand, Schick, & Jahn, 2004), a clinician rating scale for indexing severity of depressive symptoms. Both measures were completed weekly and also at 3 months post-treatment.

Procedure

Clients suspected of experiencing depression, as identified by the VON nurses using the NOSGER, were invited to take part in the study on a voluntary basis. Those who agreed to take part were seen for a first interview to determine their suitability for the study. During this session, they were administered the 3MS. The study began 1 week later, when the six participants were asked to begin their daily mood ratings. In addition, the participants completed the full GDS on a weekly basis.

Establishment of a baseline. The collection of baseline data began immediately following completion of the screening assessments. The baseline was established on the basis of the daily mood rating and was considered stable if the rating did not fluctuate by more than a single scale point in either direction within a given week.

Treatment phase. Once the baseline had stabilized, participants were introduced to the 6-week self-administered treatment. Throughout both the baseline and treatment phases, the GDS and HRSD were administered weekly and the mood rating was administered daily.

Post-treatment phase. Post-treatment assessment of depression using the GDS and the HRSD took place immediately following completion of treatment, as well as 3 months after the end of treatment, at the participants' homes (with the exception of one participant, who mailed in his GDS).

Analysis of Results

Analysis of the results of multiple baseline studies typically involves visual examination of the graphical depiction of the results. Two criteria are frequently employed to assess changes in the graphical form of the data: level and latency (see Kazdin, 1982, 1998). Change in level refers to an abrupt change in the dependent variable associated with the end of one phase and the beginning of another. Change in latency refers to the time lag between the commencement of treatment and the appearance of changes in behaviour. Other criteria considered in visual comparison include the variability of the behaviour of interest in a given phase, persistence of trend, and level changes across subjects.

Findings

Series A

Participant 1 was an unmarried 62-year-old man who lived alone and had no children and no contact with close relatives. Participant 2 was an 84-year-old widow who lived alone, having lost her husband 1 year prior to the study. She had two adult children, who were in frequent contact with her.

Participant 1. Figure 1 shows participant 1's weekly assessments on the GDS and the HRSD throughout the baseline and treatment phases as well as at 3-month follow-up. Before treatment, this man's GDS and HRSD scores were 29 and 18, respectively, indicating moderate levels of depression. Following treatment, his scores were 20 and 6, respectively. The HRSD score indicated recovery; however, the GDS remained elevated, pointing to the presence of some residual depressive symptoms. At 3-month follow-up, his GDS was 26 and his HRSD 10. His HRSD score indicated recovery; however, the GDS score continued to suggest the presence of some residual depressive symptoms.

As Figure 1 indicates, however, participant 1's reduced GDS and HRSD scores did not coincide precisely with the introduction of treatment. There was a lag of 3 weeks between the introduction of treatment and a detectable change in symptoms. During the first 3 weeks mood was consistently rated as "often sad," but after 3 weeks it was rated as fluctuating yet increasingly positive. This trend in subjective mood ratings was mirrored by the HRSD scores, which showed a decline at about the same point in time.

Participant 2. Figure 2 shows participant 2's weekly GDS and HRSD assessments throughout the baseline and treatment phases as well as at 3-month follow-up. Before treatment, this client's GDS and HRSD scores were 15 and 17, respectively, placing her in the mild range for depression.

Figure 1 *Participant 1: GDS and HRSD Scores as a Function of Baseline and Treatment Periods and at 3-Month Follow-up*

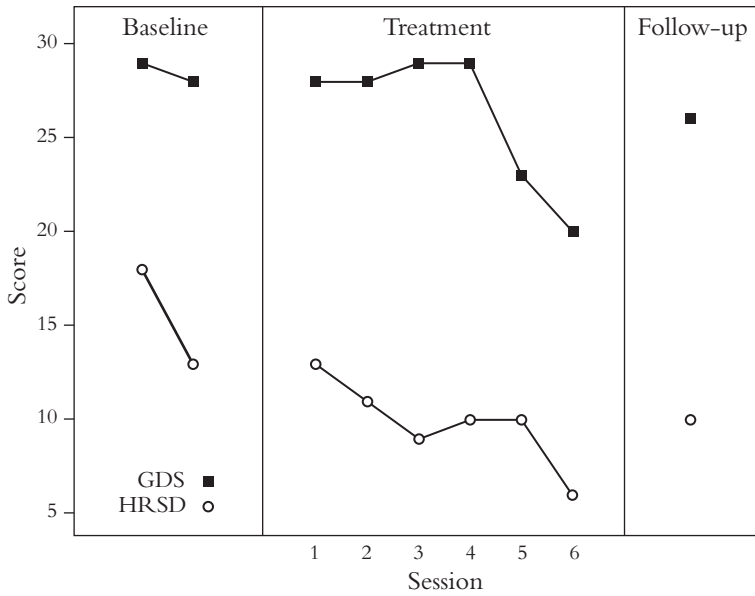
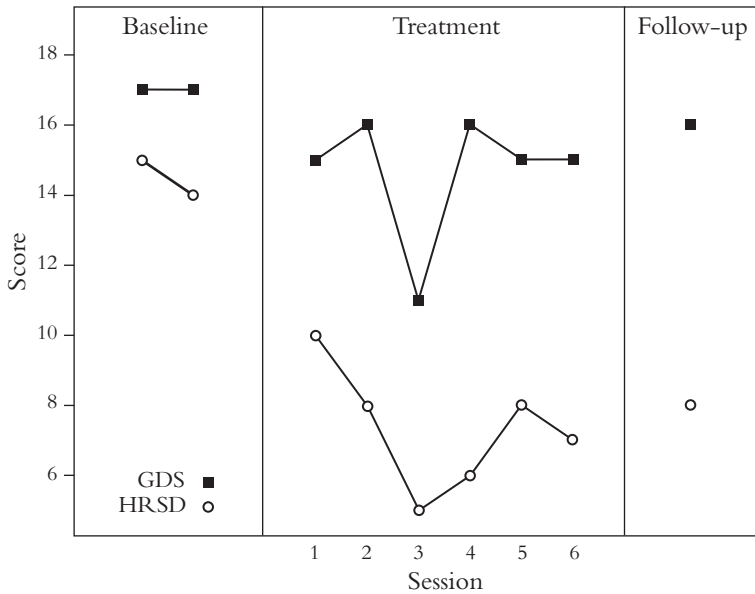


Figure 2 *Participant 2: GDS and HRSD Scores as a Function of Baseline and Treatment Periods and at 3-Month Follow-up*



There was a decline in depressive symptoms indicated by these two measures over the treatment period, with improvements in mood most apparent at week 3, followed by a slight increase in symptoms. However, the pattern of these data does not seem to indicate a clear latency period. At 3-month follow-up, participant 2's GDS and HRSD scores were 16 and 8, respectively, indicating that gains made since pre-treatment had been retained after 3 months.

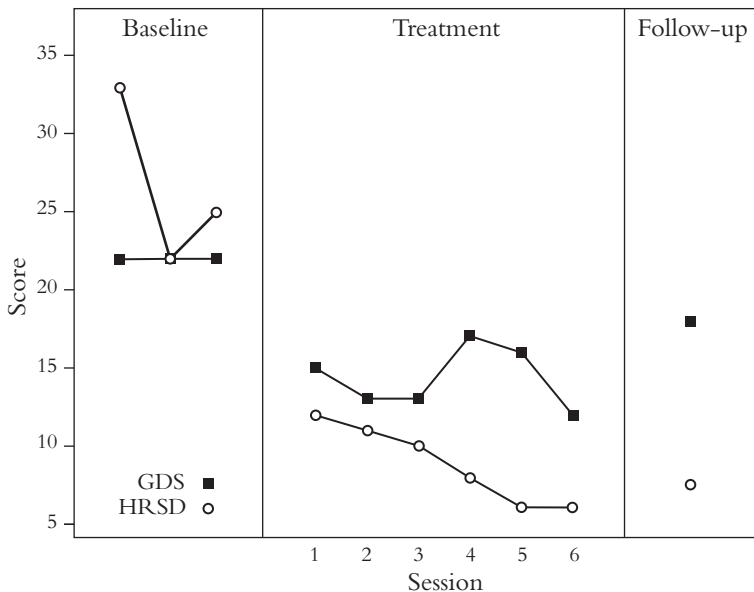
Discussion of series A. Both participants showed some signs of recovery across the course of the study. Interestingly, in both cases recovery showed a delay of several weeks. This delay may correspond to the point in treatment where engaging in "pleasant activities" began. As discussed earlier, it may well be that the reintroduction of pleasant activities constitutes a powerful active ingredient in this treatment. In the case of participant 1, there were strong indications that recovery began 3 weeks into the treatment, around the time when pleasant activities were introduced. In contrast, participant 2 did not seem motivated to integrate new activities into her daily routine. This can be considered an implementation weakness and may have been responsible for her delayed response to treatment. The delay in recovery, however, might also reflect a gradual change in behaviour and subsequent change in mood, a process to be expected when complex life changes are needed. These competing explanations were put to the test in a second study — series B.

Series B

The pattern of results in series A raised the question of the importance of pleasant activities to the alleviation of negative mood symptoms. The 3-week delay in response to the treatment coincided with the introduction of the session designed to reinstate pleasant activities. In order to determine whether the 3-week lag was in fact linked to the implementation of pleasant activities, rather than simply a gradual change resulting from the treatment in general, we modified the sequence of the sessions. The pleasant activities material was switched from session 3 to session 1. As with series A, the VON identified two suitable clients as participants in series B. Participant 3 was a 70-year-old married man who had experienced his first episode of depression in his late sixties when he was diagnosed with cancer. He reported that his retirement had left him feeling unproductive and useless, contributing to his negative mood. Participant 4 was a 72-year-old woman who had experienced two distinct episodes of depression in the past. The first episode of sadness took place around the death of her mother and lasted for several years. The second occurred following the sudden death of her son.

Participant 3. Figure 3 shows participant 3’s weekly assessments on the GDS and the HRSD throughout the baseline and treatment phases as well as at 3-month follow-up. Before treatment, this man’s GDS and HRSD were 22 and 33, respectively, indicating severe depression. Following treatment, they were 12 and 6, respectively. These scores, particularly the GDS, indicated improvement yet suggested the possible presence of mild residual symptoms. At 3-month follow-up, his GDS and HRSD were 18 and 10, respectively, indicating recovery, although some residual depressive symptoms remained. As can be seen in Figure 3, a drop occurred in both scores immediately after the introduction of treatment (i.e., after session 1, pleasant activities). The pattern of these data does not indicate the presence of a latency period between intervention and positive treatment effects, such as that found in series A.

Figure 3 *Participant 3: GDS and HRSD Scores as a Function of Baseline and Treatment Periods and at 3-Month Follow-up*



Participant 4. Figure 4 shows participant 4’s weekly assessments on the GDS and HRSD throughout the baseline and treatment phases as well as at 3-month follow-up. Before treatment, this woman’s GDS and HRSD scores were 20 and 23, respectively, indicating moderate depression. Her post-treatment scores were 6 and 4, respectively, indicating that she was free of depressive symptoms. At 3-month follow-up, the GDS

score was 14 and the HRSD 5, indicating some residual symptoms. There were substantial changes in GDS and HRSD scores for this participant, with the greatest response occurring directly after the introduction of treatment (introduction of pleasant activities). Once again, no latency between intervention and positive treatment effects was observed. This participant's mood rating demonstrated a tremendous degree of fluctuation during the course of the study. This was partially the result of a setback due to illness. The intervention was interrupted for several weeks when she was hospitalized for health problems. Upon her return home, her subjective ratings were again alternating between *fair* and *good*.

Discussion of series B. The intervention was modified in the sense that the pleasant activities material was introduced right at the beginning — that is, in sessions 1 and 2 rather than in sessions 3 and 4 — in order to explore the reasons for the 3-week lag in positive response to treatment observed in series A. Both participants showed substantial mood improvements immediately after the intervention was introduced. This finding suggests that the introduction of pleasant activities was responsible for the improvement in depressive symptoms.

Series C

As in series A and B, the VON identified two clients as suitable participants. Participant 5 was a 71-year-old married man with nine adult children. During the preceding 2 years he had become increasingly depressed, especially because of his deteriorating health and multiple disabilities. Participant 6 was an 85-year-old married man who had a son and a daughter from his first marriage. His first marriage of 30 years ended when his wife died of cancer. His current marriage had lasted 19 years and was described as extremely happy and loving. Following the death of his first wife, he reported experiencing extended grief and guilt, as well as depression. This condition disappeared after his remarriage but returned about 9 months prior to the initiation of the study.

Participant 5. Figure 5 shows participant 5's weekly assessments on the GDS and the HRSD throughout the baseline and treatment phases as well as at 3-month follow-up. At pre-treatment, his HRSD score of 14 indicated a moderate level of depression, whereas his GDS score of 24 indicated a higher level of depression. At post-treatment, these scores had dropped to 1 for the HRSD and 5 for the GDS, indicating recovery. At 3-month follow-up, his GDS and HRSD scores were both 3.

Participant 6. Figure 6 shows participant 6's weekly assessments on the GDS and HRSD. At pre-treatment assessment, his GDS and HRSD scores were 29 and 16, respectively. Following treatment, they were 22 and 11. His GDS showed great fluctuation (ranging from 2 to 30) during treatment, but in general was lower during the treatment observation

Figure 4 *Participant 4: GDS and HRSD Scores as a Function of Baseline and Treatment Periods and at 3-Month Follow-up*

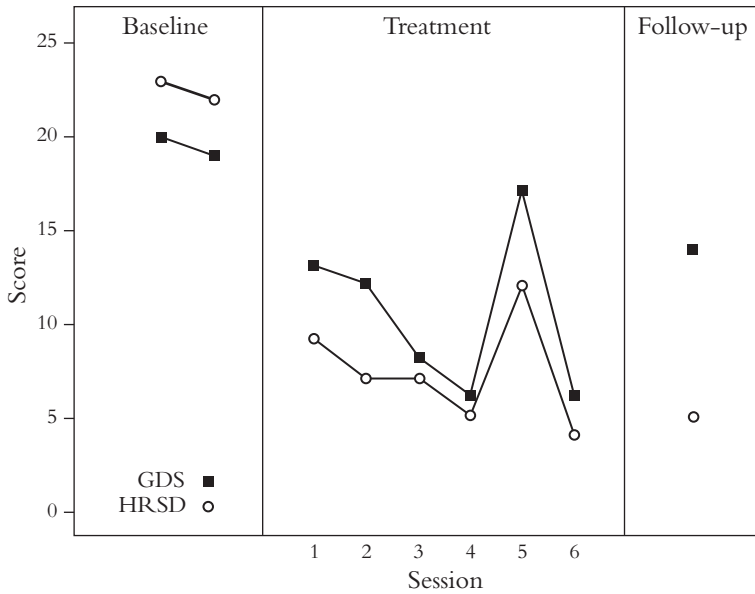


Figure 5 *Participant 5: GDS and HRSD Scores as a Function of Baseline and Treatment Periods and at 3-Month Follow-up*

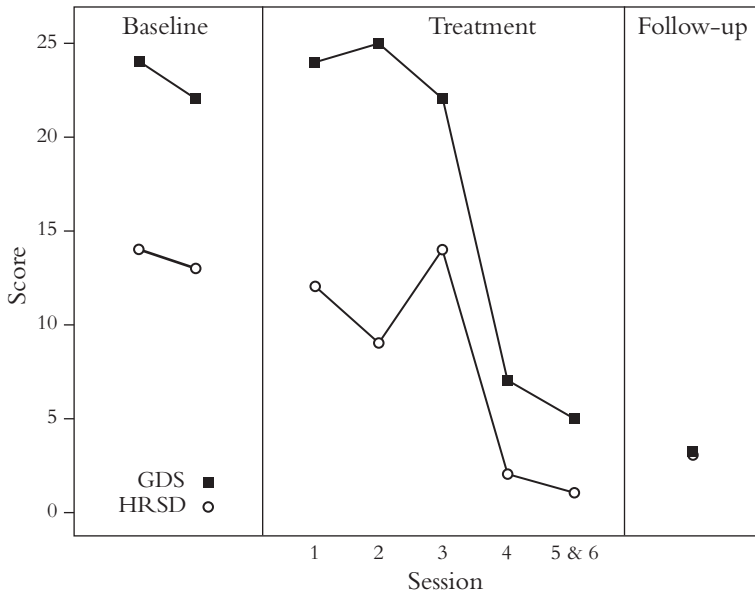
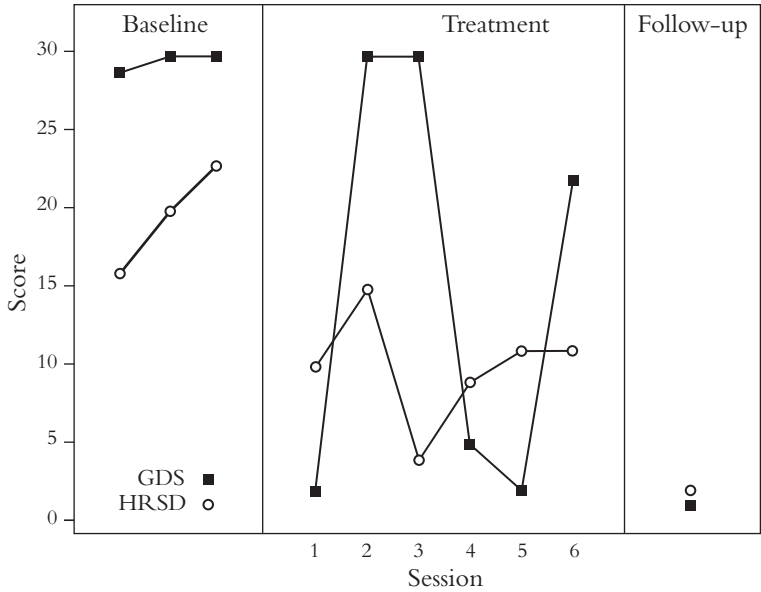


Figure 6 *Participant 6: GDS and HRSD Scores as a Function of Baseline and Treatment Periods and at 3-Month Follow-up*



period than during baseline. At 3-month follow-up his GDS and HRSD scores were 1 and 2, respectively, indicating the absence of depression. As can be seen, there was a substantial change in the weekly GDS and HRSD scores immediately after the introduction of treatment. Most of these fluctuations were in response to physical setbacks that interfered with his preferred activities. Nevertheless, participant 6's mood improvements were clinically meaningful and had a strong impact on his quality of life. At follow-up, his gains appeared even stronger. His mood was normal on all mood indices and he reported a high level of pleasant activity and hopefulness.

Discussion of series C. This series was conducted as a replication of series B, with the addition of gathering estimates of the level of pleasant activities at a baseline to provide a point of comparison for levels observed during the treatment period. Both participants estimated a low level of pleasant activities at baseline. The first reported a gradual increase in activity level, with a notable increase at session 4. While this client seemed to agree with the idea of reinstating pleasant activities, he did not feel that he was able to alter his own life. However, he appeared to test the idea slowly, making small steps and then increasing his efforts as he saw the positive effects on his mood. In contrast, the second participant and his wife became convinced of the efficacy of reinstating pleasant

activities and devoted a great deal of effort to bringing about a change. There was no latency in his response to treatment, as his reported pleasant activities increased and his negative mood symptoms decreased immediately after the introduction of treatment. For both participants, the implementation of pleasant activities and mood improvements occurred close together in time. This provides further support for our findings in series B.

Discussion

This study was undertaken to meet a pressing need of community older adults with depression. The combination of depression and disability creates a deteriorating spiral for an already underreached group. Although this special population presents with high risk for depression, the solutions are scarce, due in part to the challenge of barriers to treatment. The present study was directed by the desire to develop a solution that was therapeutically efficacious and deliverable at low cost, could be administered by nurses, and was acceptable to and usable by the elderly.

We integrated all of these aims into an alternative form of intervention. First, we chose a behavioural treatment on the basis of its demonstrated efficacy and suitability for older persons. Second, the treatment was administered in a simple written form — bibliotherapy, with examples relevant to the life and issues of the older person. This manner of administration allowed the participants to manage their own therapy with the support of a home care nurse — that is, to think about and develop their own behavioural adjustment and then carry out the change. This placed the control with the individual. Third, the issue of treatment barriers was addressed by finding a connection with a community-based service, the Victorian Order of Nurses, an organization that has a unique relationship with this high-risk population. The VON was able to deliver this type of treatment at very low cost in terms of both money and time. As the intervention was designed for self-administration with minimal contact, we aimed to express a clear therapeutic philosophy that was easily understood by the participants. The VON played a key role in delivering the intervention and serving as a resource for participants. Fourth, this approach to the treatment of depression in the home is unlikely to carry the stigma associated with seeking mental health care and is embedded in the existing rapport between VON nurses and their clients.

Results from series A indicated that the treatment was successful at the fundamental level — that is, it was feasible to coordinate the intervention with VON visits and to commission the nurses with its administration and support. With these issues of workability settled, the efficacy

of the treatment approach was examined. Although the intervention produced marked reductions in the participants' depression levels, it was not clear from series A which of its components were most useful. There was some delay (i.e., latency) before reductions in negative mood symptoms were observed, with most improvements occurring in the last 2 to 3 weeks of the intervention.

In series B we altered the order of the sessions so that the apparently more effective ingredients of the intervention, in this case hypothesized to be pleasant activities, were introduced immediately after the baseline period. Results produced in series B were favourable. Both participants experienced a meaningful reduction in negative mood symptoms, retaining most of these changes up to 3 months after the termination of treatment. Perhaps the most interesting finding was the absence of a latency period. We found it remarkable that such substantial changes could occur so rapidly. Nevertheless, reports from the VON and occasionally from significant others corroborated this change and named the increased participation in pleasant activities as its catalyst.

Our data provide strong evidence that pleasant activities were the active ingredient in this intervention. We became aware of the importance of pleasant activities in the results of series A, where changes in mood appeared to occur concurrently with the pleasant activities component of the intervention. We experimentally tested the hypothesis that pleasant activities were particularly potent in reducing self-reported symptoms of depression in series B and C by introducing this component earlier in the treatment. Three of the four participants in these two series showed mood improvements that closely followed the pleasant activities session. The fourth participant had difficulty implementing pleasant activities and required several weeks to achieve this goal. His mood, consequently, showed more gradual improvement. These results underline the importance of reinstating pleasant activities in interventions focused on treating depression in seniors with medical problems.

Some participants were eager to reinstate pleasant activities into their lives and proceeded to take immediate action. Others, however, required more time to make the changes and needed more encouragement from the nurses. Individual differences in initiative and enthusiasm may affect the speed with which participants make the behavioural changes.

Questions regarding adherence to treatment are not new. In this case, activity level was advocated and coached by the reading material and monitored by the nurses. There are many issues, however, that can affect the inclination to change. First, we capitalized on some of the inherent qualities of behavioural intervention. The behavioural formula of change is simple but powerful. In our case, much effort was made to enhance

face validity and also to maintain the simple presentation of the bibliotherapy material. This issue is particularly pertinent when one is working with older adults. Acceptability of treatment, and ultimately its implementation, is facilitated if the proposed changes are reasonable, attainable, and mindful of the limitations of older persons. In addition, this intervention was administered in the context of a medical care model, which contributed to its credibility; while this does not preclude non-medical interventions, it is a generational preference that must be accepted as a possible factor in treatment success.

It should be noted that while the data strongly suggest that pleasant activities are an important component of the treatment, the idea of reinstating pleasant activities was supported by sessions focusing on the participants' cognitions. An awareness of the link between thinking and feeling, as well as the ability to cope with negative thinking, may help participants to maintain their gains after the termination of treatment. Seniors with functional impairment may find it difficult to keep up the effort of deliberately participating in pleasant activities. It may be less difficult if they know that their recovery depends in large part on their ability to take the initiative and combat negative thoughts with continuous effort.

Maintaining therapeutic gains is an important issue for any intervention. Most participants in this study maintained their gains well. In fact, many continued to improve during the 3 months after treatment and showed further gains at follow-up. Many reported reading the material over again to refresh their memory, and some continued to use the exercises included in the treatment package.

One of the strongest features of this intervention is its flexibility and sensitivity — it can be tailored to fit the needs of any given VON client. For example, since all six sessions are relatively self-contained, there is freedom to concentrate (either with the nurse or alone) on readings that appear to be particularly relevant to the problem behaviour. Some participants did this naturally. For example, one participant found the session on negative thinking quite helpful and continued to read it in conjunction with other sessions. Certainly, if the VON nurses were administering this intervention without the restrictions imposed by research control, they would have the flexibility to let clients choose helpful components, and perhaps drop any that seem superfluous. Further, some parts of the intervention can be left to self-administration and others can be discussed with the nurse, depending on each client's needs and resources. Frequently, participants needed assistance with problem-solving in order to engage in pleasant activities. For example, one man wanted to plan activities that were quite a distance from his home and found it difficult to use public transportation. The VON nurse, who was familiar with

community resources, was able to arrange for a special adapted vehicle for him. This service allowed him to extend his functional mobility and arrange pleasant activities at locations of his choice.

In the same vein, modifications can be made while the intervention is in progress. For example, participants may terminate early if their depressive symptoms have disappeared and the essential parts of the intervention have been covered, particularly sessions on pleasant activities and negative thinking. Also, since sessions are only several pages in length, they can be combined in a coherent way for participants who prefer a more rapid pace. These modifications are recommended only in cases where there is reasonable justification for varying the tested intervention (i.e., participants' requests or special circumstances). It is recommended that the intervention initially be presented to clients in the form finalized and examined in the final series of our research (series C).

The flexibility of this intervention is highly advantageous, especially with respect to seniors with health problems. Some of the unforeseen events that occurred during the intervention centred around complications of the health condition and medication irregularities. In three cases, such disruption occurred during the treatment period. One participant became ill and was hospitalized for several weeks, an event that caused a serious setback in terms of her mood. Another participant began to anticipate a relocation, which to him meant that he would have to abandon all of the social and community contacts he had worked hard to build. The participant's difficulty coping with this situation affected his progress during the observation period. A third participant, although stable on medication at initial interview, had a sudden change in medication, causing serious side effects that contributed to agitation and negative mood. The results must be interpreted in the context of these unforeseen events, which pose a problem in a short observation period. However, future research must anticipate such irregularities, as their absence is difficult to imagine in older persons with unstable health. It must be kept in mind that the core goals of the intervention are, or should be, considered as independent of these fluctuations — that is, the intervention can be continued and worked around such events or resumed when the client is ready. This is a judgement that very much depends on the situation of the individual and the nature of the life event.

This study contributes to our knowledge on the nature of depression in seniors and also provides an innovative treatment for use with under-reached older persons. Our results indicate that in some seniors depressive symptoms may be related to diminished engagement in pleasant activities imposed by physical limitations. We found that the nurses working with these seniors were in an opportune position to introduce the treatment and assist with its implementation. The seniors likely would not have

pursued treatment otherwise. Because of their trusting relationship with patients, nurses are able to provide considerable moral and instrumental support with treatment. They are able to encourage problem-solving, helping seniors to come up with and implement reasonable pleasant activities substitutes. Although the treatment is designed to be self-administered, the nurses played an important role in its implementation. Their knowledge of the patients' physical limitations, combined with their access to community resources, supported seniors in finding innovative solutions to their activity restrictions and ultimately reducing their symptoms of depression.

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