

# Group, Individual, and Staff Therapy: An Efficient and Effective Cognitive Behavioral Therapy in Long-Term Care

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*Objective.* Depression is a major problem in long-term care (LTC) as is the lack of related empirically supported psychological treatments. This small study addressed a variant of cognitive behavioral therapy, GIST (group, individual, and staff therapy), against treatment as usual (TAU) in long-term care.

*Method.* 25 residents with depression were randomized to GIST (n = 13) or TAU (n = 12). Outcome measures included geriatric depression scale-short form (GDS-S), life satisfaction index Z (LSI-Z), and subjective ratings of treatment satisfaction. The GIST group participated in 15 group sessions. TAU crossed over to GIST at the end of the treatment trial.

*Results.* There were significant differences between GIST and TAU in favor of GIST on the GDS-S and LSI-Z. The GIST group maintained improvements over another 14 sessions. After crossover to GIST, TAU members showed significant improvement from baseline. Participants also reported high subjective ratings of treatment satisfaction.

*Discussion.* This trial demonstrated GIST to be more effective for depression in LTC than standard treatments.

**Keywords:** behavior therapy clinical trial; group therapy; long-term care; aging and depression; dementia; depression treatment

The problem of treating depression in long-term care (LTC) has been discussed for several decades.<sup>1</sup> Duffy and Karlin<sup>2</sup> recently noted that psychologists who work in LTC report that referrals for the treatment of depression represent 80% to 90% of all referrals for psychological services. Despite this, evidence for the effectiveness of treatment, both pharmacological and psychosocial, in these facilities is left wanting, in large part because psychological treatments are difficult to apply in LTC.<sup>3</sup> The purpose of this article is to report on the effectiveness of a form of cognitive behavioral therapy (CBT) called group, individual, and staff treatment or GIST in LTC. To begin, we briefly review depression in older adults and evidence-based psychotherapeutic interventions, focusing especially

on individuals in LTC. We then describe the implementation of GIST and report preliminary findings regarding its effectiveness as a treatment for depression in LTC.

## Depression

Depressive symptoms among the older adults have rates upward of 18% to 20%.<sup>4,5</sup> In LTC, studies that have focused on major depressive disorder (MDD) report rates of 6% to 24% and higher.<sup>3,6,7</sup> The prevalence of minor depression and dysthymia is higher still, ranging from 30% to 50% in most studies.<sup>6</sup> Meanwhile, subsyndromal but still clinically significant depressive symptoms raise prevalence estimates yet again, between approximately 35% and 45%.<sup>6,8</sup> Depressive symptoms can also co-occur with dementia at rates as high as 60%.<sup>9-12</sup>

It is well known that a significant number of older adults receive little or no treatment for depression.<sup>3</sup> Yet, depression diminishes overall quality of life and has been associated with significant disability in

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physical, interpersonal, and social role functioning.<sup>13</sup> In LTC, depression exacerbates other problems, such as functional deficits,<sup>14</sup> behavioral disturbances<sup>14,15</sup> poor nutrition,<sup>16</sup> noncompliance with treatment,<sup>17</sup> pain,<sup>18</sup> excess disability in dementia,<sup>4</sup> morbidity,<sup>19</sup> and even mortality.<sup>20</sup>

## Psychological Treatments for Depression in Older Adults

Over the past 30 years, a consensus has evolved that psychotherapy can be an effective treatment for depression in older adults.<sup>21-23</sup> Several meta-analyses have been conducted confirming the efficacy of such intervention.<sup>24,25</sup> In 1 analysis, Scogin and McElreath<sup>24</sup> found a large effect size ( $d = 0.78$ ) for psychotherapeutic treatments. Using a more conservative effect size estimation procedure that involved correcting for pretest differences between treatment and control conditions, Engels and Vermeij<sup>26</sup> examined 17 psychological treatments for geriatric depression, and found a mean effect size of  $d = 0.63$ . Regarding the specific efficacy of CBT for the treatment of depression, 1 review using American Psychological Association criteria for empirically validated treatments concluded that CBT was a well-established treatment for depression in older adults.<sup>27,28</sup> Other reviews that endorse the efficacy of psychotherapy, especially CBT, include a meta-analysis on psychotherapy and pharmacology<sup>29</sup>; 1 on depression in caregivers<sup>30</sup>; and 1 on primary care.<sup>31</sup> Cognitive behavioral therapy is also efficacious for depressive disorders in a wide variety of older patients,<sup>27,32</sup> including affective disorders in the frail elderly.<sup>33</sup>

Furthermore, studies comparing CBT or other evaluated psychotherapies against psychopharmacology for depression show that psychotherapy delivered in conjunction with pharmacotherapy is significantly more efficacious in treating depression and other mental health problems than is pharmacotherapy alone.<sup>34,35</sup> Indeed, in regard to older age groups specifically, CBT and interpersonal therapy have been found to be at least as efficacious in treating depression as pharmacotherapy.<sup>36-38</sup>

## Treatment for Depression in LTC

In spite of such encouraging results for use of psychotherapy or psychotherapy plus pharmacotherapy to treat depression in the older adults, the treatment of choice in most LTC facilities remains medication only.<sup>39</sup> This has only increased in recent years as

reflected by the amount of medications used, especially antidepressants.<sup>40</sup> This trend flourishes because nursing homes operate under the medical model, and medications are easy to administer and monitor. Unfortunately, the efficacy rates for antidepressants in LTC are low and nonsignificant.<sup>2</sup>

Hyer et al<sup>41</sup> conducted a review of relevant treatment studies over the past three decades based on a PSYCINFO search using keywords for depression, psychotherapy, and LTC. A total of 20 better quality studies on depression in LTC were evaluated. These had a control group and/or used a treatment manual. This review indicated that many of the psychosocial interventions surveyed can mitigate depressive symptoms in LTC residents. However, although several preliminary studies showed promising results, less is known, according to the authors, about treatment effectiveness regarding clearly defined psychiatric syndromes, such as MDD. Furthermore, it was less clear how these interventions influenced more distal outcomes, such as functional independence, activity participation, social engagement, or compliance with self-care and health maintenance. On the other hand, the studies suggested that psychological interventions can be efficacious with varied kinds of residents, from those who have full mental capacity and relatively robust physical health, to residents with significant cognitive impairment and physical frailty. Additionally, both group and individual psychotherapies held promise. Finally, although the evidence suggested that behavioral approaches that increase pleasant events and cognitive approaches that challenge distorted cognitions, bolster self-esteem, and increase self-mastery are effective, interpersonal therapies that address relationship issues, and reminiscence or life review approaches that seek to reestablish meaning in life also may be useful. In other words, no single modality showed preeminence.

## Behavioral and Cognitive Behavioral Therapy

Behavior therapy approaches are based on a social learning model, which views depression as a series of behaviors that are learned and then changed through positive and negative contingencies.<sup>42</sup> According to this model, depression is more likely to develop in individuals who participate in few enjoyable or meaningful activities. Relevant therapeutic approaches will therefore focus on increasing pleasant interactions and decreasing unpleasant interactions, as well as developing ways to alter the

environment to increase activity.<sup>43</sup> In an LTC setting, then, the goal of behavior therapy is to increase the frequency of pleasant experiences as well as decrease unpleasant events. Meeks and Depp,<sup>22</sup> for example, have provided a pleasant events-based behavioral model for use in nursing homes.

In a review of therapies for older adults with cognitive impairment, Gatz and colleagues<sup>27</sup> found that the effectiveness of behavioral and environmental interventions for behavior problems is "well established," according to American Psychological Association criteria. Indeed, in nursing homes, where there is a high incidence of cognitive impairment, behavioral approaches are far more helpful than traditional cognitive approaches.<sup>44</sup> This finding suggests that behavioral approaches account for an independent and superior effect in intervention outcomes. That said, there are no randomized controlled clinical trials comparing the use of behavior therapy versus CBT in LTC, and no such intervention studies conducted with persons with dementia.

Research related to the use of collaterals (eg, family caregivers) in the therapy process is also promising. Such an approach in LTC may be especially useful because of the high levels of frailty and cognitive impairment, which can compromise residents' ability to participate fully in therapy. Linda Teri and colleagues have completed several studies demonstrating the positive effects of behavior management when applied by caregivers for agitation<sup>45</sup> and for depression in persons with dementia.<sup>43,46</sup> Similarly, Burgio and colleagues have demonstrated the positive effects of behavior management when applied by nursing home staff to behavioral problems in persons with dementia.<sup>47,48</sup> Likewise, interventions that use caregiver involvement with depressed as well as dementing older adults are showing success.<sup>49-54</sup>

Cognitive behavioral therapy differs from behavior therapy in that it is a collaborative form of psychotherapy that relies primarily on cognitive interventions, but includes behavioral techniques as well. Studies evaluating CBT with depressed older adults have identified several factors that point toward both more favorable and less favorable patient outcomes. On the positive side, there is the structure of behavioral techniques, the use of external aids, and the application of slower, repetitive cognitive techniques to accommodate cognitive impairment.<sup>51</sup> Interestingly, behavioral treatment and even CBT appear to be effective as therapies largely because they may require less cognitive load than psychodynamic or supportive therapies. In 1 study of older adults with anxiety, change scores

were significantly and positively associated with fluid intelligence scores for those randomized to a supportive treatment for anxiety, whereas there was no association between fluid intelligence and treatment success in those randomized to a CBT treatment for anxiety.<sup>55</sup>

There are also many negative factors that mediate treatment in older adults. Factors such as endogenous (vs exogenous) depression,<sup>56</sup> dysthymia,<sup>57</sup> presence of a comorbid personality disorder,<sup>58</sup> severe symptomatology,<sup>59</sup> cognitive impairment, such as memory and executive function deficits,<sup>3</sup> limited self-insight and psychological mindedness,<sup>60</sup> lack of motivation for and commitment to treatment,<sup>44</sup> and the provision of treatment by underqualified therapists,<sup>25</sup> can increase problems with therapy outcomes.

## Group, Individual, and Staff Therapy

In recent years, efforts have focused on simplifying empirically supported components in psychotherapy, especially for older adults. GIST is one such model. It is adapted from the group, individual, and family treatment (GIFT) program, a therapy for depression based on CBT theories and techniques developed to increase cost-effectiveness and transportability.<sup>61</sup> GIFT emerged from what Friedman and colleagues label the "emotional fitness model of mental health,"<sup>61</sup> which is based on the idea that physical fitness (ie, eat healthily and exercise regularly) is not inherently complicated but is often difficult to implement consistently.<sup>62</sup> Friedman and colleagues posited that although depressed individuals assume that mood must improve in order for self-worth and social relatedness to improve, in actuality, engagement in positive or meaningful activities will enhance self-worth and facilitate social connectedness, and thereby lift mood. Moreover, sustained recovery from depression requires the individual to practice regularly a few basic coping strategies across a range of situations; strategies that are easy to learn but, perhaps, difficult to use consistently. In effect, the specific techniques are not as important as the need to practice to maintain skills.

GIFT consists of 10 to 14 group sessions, 3 individual sessions, and 2 coach (peer/staff) sessions to implement coping strategies and build the foundation to maintain these new skills. It relies more on behavioral than cognitive approaches to target a specific coping process,<sup>42,63</sup> such as behavioral activation<sup>64</sup> or problem solving.<sup>65,66</sup> GIFT treatment stands in

**Table 1.** GIST Model Timeline

Treatment component	Weeks in Program														
	Initial	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Group		X	X	X	X	X	X	X	X	X		X	X	X	X
Individual	X										X				
Coach (peer/staff)			X				X								

Abbreviation: GIST, group, individual, and staff therapy.

contrast to cognitive approaches that emphasize learning an array of more complex skills (eg, linking underlying cognitive schemas to automatic negative thoughts) to facilitate recovery.<sup>67,68</sup> Thus, the emphasis of GIFT lies in identifying more positive behaviors and a focused set of skills with which an individual can become increasingly adept at implementing in the face of adverse situations or negative mood. Once an individual is able to identify the behaviors that improve mood, she/he is then more able to regularly engage in them to influence mood.

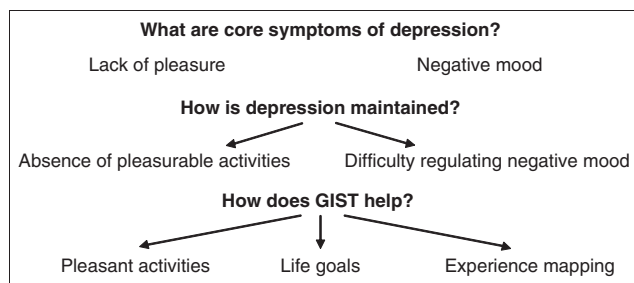
GIST is an adaptation of GIFT for older individuals in LTC. Like GIFT, it emphasizes initiation, repeating, and mastering basic coping skills to treat depression, rather than the stepped iterative learning of more complex cognitive skills. There are several features of GIST that are important in LTC. First is the use of an open-group format. The GIST program is delivered in an open-group format that allows residents to begin their treatment sequence at any point while the group is being offered. This open-group format stands in contrast to closed group formats, in which clients would have to wait for a new group to begin to participate, which may take several weeks or months.

Second, a single, repeated-session group format is applied. The traditional CBT groups use as many as 20 different sessions, often requiring both clinicians and patients to manage dozens of different techniques and skills.<sup>63,66,68</sup> In LTC, the large number of skills to be learned can be difficult for both therapists and patients. The GIST program, on the other hand, uses a single, repeated group session that emphasizes the reapplication of the same skills from week to week. Thus, patients at the beginning of their treatment are participating in the same group session as those individuals who have participated in numerous sessions. The difference is that the more experienced group members have developed some expertise for the skills being taught to the newer group members. Because the format is the same in each group, residents can enter the group at any point.

Third, individual-based interventions complement the group sessions (Table 1). The concept of integrating individual and group-based psychotherapy has a long tradition in the clinical literature and has been proposed for integrating patients into open-group CBT for depression.<sup>68,69</sup> For example, there is evidence that combined group and individual treatment programs have improved outcomes as compared to either individual or group treatment alone for the treatment of posttraumatic stress disorder (PTSD).<sup>70</sup>

Fourth, staff or peer interventions are used. In the GIST model, nursing, other support staff, and peers are incorporated into the treatment modules as coaches, because all are an integral part of the resident's life. The choice whether the coach is staff or peer is determined by each case, as in cases where staff are not available or peers are especially valuable to the patient. Behavioral models explicitly describe the importance of the environment in maintaining depressive symptoms. There is evidence that the presence of depression can often cause significant stress on others, sometimes even contributing to the development of clinical depression in family members.<sup>71,72</sup> Recent years have seen a surge of interest in the role of the family in depressive disorders. Evidence suggests that families with depressed patients report severe levels of dysfunction during the depressive episode, with some studies indicating that the level of family impairment is more severe in depressive disorders than in any other psychiatric diagnostic group.<sup>72</sup> Similarly, in LTC settings, staff are generally not trained well and often inadvertently perpetuate depression.<sup>3</sup> Their involvement then is seen as important.

The 3 essential interventions in GIFT that are adopted by GIST are behavioral activation, increasing positive mood, and modifying behaviors. These are achieved by focusing on pleasant activities and setting up easy-to-attain goals. The GIST program's focus of change is on increasing mood by developing positive short-term goals and life goals, and managing negative mood through experience mapping, or



**Figure 1.** Model for GIST Interventions  
GIST indicates group, individual, and staff therapy.

understanding the cycle of cognition, emotion, and behavior (Figure 1).

Below we describe the implementation of the GIST program in LTC.

## Methods

### Setting and Participants

The present study took place at a veteran's nursing home in Central New Jersey. This was a licensed state LTC with a census of 346 male and female residents. Psychiatry services were subcontracted from the University of Medicine and Dentistry of New Jersey (UMDNJ). Residents with depression diagnoses (eg, MDD, adjustment disorder with depression) were recruited for the study. Diagnoses were based on *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* criteria and were determined by a geropsychiatrist and geropsychologist (L.H.). In addition, eligible residents had a geriatric depression scale—short form (GDS-SF) score of  $\geq 5$  (indicates mild depression). Of note, residents with some cognitive impairment, including mild dementia, were permitted to participate as long as Mini-Mental State Examination (MMSE) scores were  $\geq 18$ .

A total of 30 residents were identified from a list of referrals over a 6-month period; 25 agreed to participate in the study. Participants were randomly assigned to the GIST group ( $N = 13$ ) or treatment as usual (TAU,  $N = 12$ ). Randomization was by diagnosis so that each group had roughly the same number of MDD participants. There were 21 male and 4 female participants in the groups; 22 Caucasian and 3 African American. Of these, 15 were given an MDD diagnosis (8 in GIST and 7 in TAU) and 10 had an adjustment disorder with depression

diagnosis (5 in GIST and 5 in TAU). GIST group mean age was 78 years; TAU was 81 years. GIST group years of education was 10.9; TAU was 11.1. A total of 7 members of the GIST group were on psychotropic medication; 6 in TAU. Medications did not change during the study period, and there was no indication that this adjunctive treatment influenced results.

All participants attended at least 5 GIST sessions. One person dropped out of the GIST group at session 6 due to hospitalization for medical reasons. This person had attended 5 sessions but was too sick to complete poststudy measures. Given that GIST allows for reduced attendance or attrition, all members who could be tested at the end of treatment were included in the analysis.

### Measures

All participants were given a pretreatment packet, which comprised the GDS-S,<sup>73</sup> life satisfaction index Z (LSI-Z),<sup>74</sup> and the MMSE.<sup>75</sup> The GDS-S is a 15-item depression measure designed for older adults. The GDS-S has been shown to have good validity and reliability.<sup>41</sup> The LSI-Z has been used in LTC settings as well as with older adults in other settings. We used the 18-item version. Internal consistency was .82. The MMSE, which is universally applied in LTC settings, was applied as a measure of global cognition.

Posttreatment measures included the above and, in addition, GIST participants were also asked to rate the quality of the group experience using a group rating form. This form was a single question: "How would you rate this group in terms of helping you with your problems?" 1 (not recommend), 2 (slightly recommend), 3 (group was pleasant but not helpful), 4 (helpful), or 5 (very helpful).

All measures were administered by a doctoral level graduate student in clinical psychology who was trained by the geropsychologist. The posttreatment evaluations were performed by geropsychology trainees blind to the treatment condition. There were no pretreatment differences between GIST and TAU groups on these measures.

### Procedure

The procedure comprised 2 trials: (1) the initial trial in which there were 2 groups, GIST and TAU; and (2) the continuation trial, in which the GIST group remained for an additional GIST course and the TAU group crossed over to GIST. After randomization for

the initial trial, GIST participants attended an individual session in which they were educated about the group treatment (called the “Goals Group”) for adjustment difficulties and depression. All GIST members were then given pretreatment measures at the first group meeting. This same assessment was completed for the TAU members at their first group meeting. Treatment as usual members participated in usual group activities and socialization. GIST group participants began and ended the trial at the same time, although some members missed sessions during the trial. After 15 sessions (up to 2 individuals and 13 groups sessions), the GIST group was reassessed (Posttime 1), as was the TAU group by graduate geropsychology trainees blinded to the treatment intervention. At the end of the GIST initial trial, GIST participants were invited to continue in treatment for another 14 sessions (absent the initial individual session). All agreed. The second trial of GIST was identical to the first one. At this time, the TAU group also was invited to participate in the GIST treatment; 6 did. These 6 participated as a separate group. At the completion of the full complement of sessions (14 sessions, absent the initial individual session), this group was reassessed by the blinded evaluator with the MMSE and GDS-S (Posttime 2).

### Data Analysis

Given that there were no differences on any of the pretreatment measures, posttreatment group *t* tests for independent samples were conducted for the GIST versus TAU at Posttime 1. Additionally, at Posttime 2, the original GIST group was compared to themselves at baseline using a paired *t* test, as there was no control group (ie, TAU) for Time 2. The TAU (now-GIST) group also was assessed against itself at baseline (paired *t* test). Of note, some data from the postsessions were missing from both groups due to uncontrollable events (sickness and hospitalization).

### GIST Intervention

The GIST program (Table 1) integrates 1 to 2 individual sessions and a coach (staff/peer) and participant session into the overall treatment. This serves a specific purpose. The first individual session aids the participant with goal establishment and orients him/her to the GIST program. Ideally, participants are able to identify both positive and life goals (see below) at this time. The second individual session occurs to address any barriers to participation.

The participant is also encouraged to select a staff member or peer who will become an integral member of the participant’s support network, and will assist in carrying out the interventions. The therapist includes selected staff and peers early on in the group sessions, and they are encouraged to attend at least 2 of these.

*Goal Selection.* Goals are to be simple, doable, important, and measurable. Two kinds of goals are identified: *positive and meaningful*, and these are explored with participants during their initial individual sessions. By the end of session 1, participants are expected to have at least 1 short-term positive goal identified. Positive goals are intended to provide a motivated focus for the group member that eventuates in improved mood and behavior. Goals can address aspects of nursing home life or issues with family. Meaningful or life goals include tasks that are important in life but not necessarily rewarding (eg, seeing a special doctor, calling an unavailable son, etc). In GIST, life goals are optional, as some group members cannot formulate such goals, especially early in the GIST experience.

*Group Session Content.* The core of the GIST program is 13 weekly group sessions, which last 75 to 90 minutes each. These sessions are designed to further develop and reinforce members’ goals for behavioral activation of pleasure and/or life goals (60 minutes), and to a lesser extent, attend to negative experiences, called experience mapping (30 minutes). The format for each session is as follows: (1) check-in, in which participants share their perspectives regarding general well-being; (2) the therapist explains the GIST model, and group members help explain or share examples of common emotional and behavioral experiences; (3) group members review their goals; and (4) the group problem solves and offers support for other members who are having difficulty attaining goals. In GIST, goals serve as the cornerstone of the group. Every member identifies at least 1 goal for discussion. Group facilitators, nursing home staff, and peer supports assist group members to write their goals onto a *goal sheet* form. A white board also is used during group sessions for this purpose. Goals should be referred to as much as possible in all sessions as they become the target for group discussion and intervention. Behavioral activation of positive or meaningful goals, then, constitutes the first and longest session component.

*Behavioral Activation of Positive or Meaningful Goals.* Members begin the behavioral activation exercise by reviewing their positive or life goals. Then each participant is asked to consider how the group can provide him or her with support. This enables the group to be flexible in how it meets each member's needs (eg, 1 group member wants the group to provide her with encouragement to strive toward a particular goal). Several methods have been developed in GIST to identify goals, attach mood to goal activation, and assure goal-related tasks are being done. These include social support, motivation, peer/staff assistance, and a narrative understanding of the resident.

*Social Support.* Social support involves asking the member to do something simple and basic, such as leaving the bedroom and interacting with other residents. This intervention can be very low-key, as in encouraging the member to just get out of the room. Sometimes it requires "instruction," in which the group reminds a participant of the value of engaging with other people even if they prefer to be alone. This is especially helpful when a member feels sad. *Motivation* involves an exposition of the reasons for this particular goal. It is important to take some time to discuss how motivation can be elusive, but, if thought through, will emerge. It is also important to discuss how motivation feeds off of action. Depression, for example, follows this dynamic: depressive symptoms tend to remit quicker following behavioral activation—not the other way around. The use of *peer/staff assistance* is helpful to ensure that the resident can (will) do this task (see below). Finally, a narrative understanding of each group member is important. This allows the group facilitator to place goals and problems with goal attainment in context and in perspective.

The GIST model enables the therapist to choose among several additional interventions in the behavioral activation process. One intervention asks the group member to complete mood ratings and attach them to pleasant events to encourage behavioral activation. The group member may need peer/staff assistance to accomplish this task. Other CBT techniques (individual and group models) also may be applied, such as the depression spiral model, use of external rewards, acting "as if," functional analysis, monitoring, structuring the day, and relaxation methods. Finally, breathing relaxation is also applied as most members can appreciate this and readily comply.

One other feature of the GIST model is applied in the group sessions, called experience mapping. It is an optional but highly valuable intervention when problems are identified during the week by a group member. The experience map (EM; Figure 2) is intended to be a problem solving method for the issue raised. It is a "slow presentation" of a point in time surrounding the problem. Staff should always assist in its formulation. The group facilitator should also tell and retell the group why this is an important group activity—it enables members to fully see and appreciate the ways in which the problem unfolded. So, following the behavior activation/life goals component of the group, the facilitator asks 1 group member to share a problem with the group. The facilitator begins with a description of the experience map, and then pulls for the thoughts/feelings/behaviors the resident experienced when the problem occurred. With the resident presenting each component of the experience map (eg, situation, behavior, negative mood, alternative coping strategies), the facilitator guides the discussion to incorporate the group's reactions. The facilitator then elicits the environmental, cognitive, and behavioral factors that may have contributed to negative mood.

Creating the EM is a 3-stage process: (1) Identify/Validate—the target member is allowed to feel safe and normal, given this "logical" problem and his/her "reasonable" response; (2) Brain Storming—all possible options are considered by the target member and the group; and (3) Change—the target member chooses a strategy to manage the next similar problem. As part of this process, the member identifies a positive mood goal and then generates strategies for attaining that goal. The group also is encouraged to become active in generating alternative potential coping strategies. At the end of the exercise, both the target member and the group have a better understanding of how coping is influenced by a given mood state. Also, more concretely, there is a "lesson learned" (take home message) for both the target member and the group.

### TAU Intervention

The TAU group received the usual therapies in the LTC setting. This particular nursing facility is active, with daily activities involving frequent socialization and games, as well as special events. No effort was made during the study to track usual activities in this group.



**Experience map**

**Initials:** \_\_\_\_\_ **Date and time:** \_\_\_\_\_

1. How are you feeling and what is contributing to that?  
 Event description Mood  
(Rate mood 1-10)  
Thoughts  
Behaviors
2. Validate: Does this make sense to you (and all in the group) that you would feel that way given these behaviors, thoughts, and situation?
3. Change: How would you like to feel? What are coping strategies that might help?  
 Brainstorm possibilities

What strategy did you try and how do you feel?

Take home message: \_\_\_\_\_ Therapist comments: \_\_\_\_\_

Figure 2. Sample Experience Map.

## Results

We provide 3 sets of analyses. The first compared GIST and TAU groups on pre-MMSE and post-MMSE, GDS-S, and LSI-Z measures. As there were no differences between the 2 groups in the initial values of MMSE, GDS-S, and LSI-Z (Table 2), we calculated postsession *t* tests only on these measures. As can be seen in Table 2, there were significant differences between the 2 groups in favor of GIST on GDS-S and LSI-Z. No difference was found on the MMSE. Thus, the GIST group improved more than the TAU group on the 2 measures of therapeutic change. Additionally, GIST participants rated the intervention on its personal value. As noted previously the options were: 1 (not recommend), 2 (slightly recommend), 3 (group was pleasant but not helpful), 4 (helpful), or 5 (very helpful). GIST participants rated the group as “helpful” (4) and “very helpful” (5). In effect, members liked the group and found it helpful.

The second analysis focused on the second treatment trial of the GIST group. This analysis compared baseline MMSE, GDS-S, and LSI-Z scores with postmeasures collected at the end of the second treatment trial, contrasting each participant

against himself/herself (baseline vs Posttime 2). A total of 12 participants were included in this analysis ( $n = 12$ ; 1 dropout). Paired sample *t* tests revealed a significant difference in GDS-S scores only, showing significant improvement in self-reported depressive symptoms at the end of the second treatment trial. Furthermore, although MMSE scores improved by the end of the second trial, differences did not reach conventional levels of statistical significance (Table 3).

The third analysis examined treatment outcomes for those members of the TAU group who crossed over to GIST. There were only 6 participants ( $n = 6$ ). We elected not to fold in this group with the initial GIST group for 2 reasons. First, the initial GIST group now had doubled the number of GIST sessions, affording a potentially more potent treatment effect, and, second, there was a self-selection bias in the initial TAU group (now GIST), as not all members chose to cross over to GIST. The new GIST participants' posttreatment measures were therefore compared against their baseline scores on the MMSE and GDS-S. Paired sample *t* tests revealed a significant difference between pre-GDS-S and post-GDS-S scores, demonstrating improvement in self-reported depressive symptoms. There was no



**Table 2.** Comparison of Pregroup and Postgroup Measures

Measures	Group	N	Mean (SD)	Student <i>t</i> <sup>a,b</sup>
Pre-MMSE	GIST	13	23.6 (4.3)	0.00 (NS)
	TAU	12	23.6 (1.8)	
Post-MMSE	GIST	13	23.2 (5.2)	0.63 (NS)
	TAU	12	22.2 (1.8)	
Pre-GDS	GIST	13	10.4 (3.8)	1.17 (NS)
	TAU	12	9.0 (1.7)	
Post-GDS	GIST	13	5.0 (3.5)	-4.77 <sup>c</sup>
	TAU	12	10.5 (1.6)	
Pre-LSI-Z	GIST	13	8.6 (3.5)	0.63 (NS)
	TAU	12	7.9 (1.6)	
Post-LSI-Z	GIST	13	13.1 (3.5)	3.60 <sup>d</sup>
	TAU	12	10.5 (1.6)	

Abbreviations: GDS, geriatric depression scale; GIST, group, individual, and staff therapy; LSI-Z, life satisfaction index Z; MMSE, Mini-Mental State Examination; NS, not significant; TAU, treatment as usual.

<sup>a</sup>2-Tailed *t* test.

<sup>b</sup>*df* = 23,1.

<sup>c</sup>*P* < .001.

<sup>d</sup>*P* < .01.

significant difference in pre-MMSE and post-MMSE scores (Table 4).

In sum, this small trial of GIST demonstrated a positive treatment effect for depressed individuals in LTC.

## Discussion

Data from the present study indicate that individuals who participated in GIST experienced a significant overall reduction in self-reported depressive symptoms, as well as an increase in life satisfaction. This was observed at the 14-week reassessment and reduction in symptoms was maintained at week 28. Unfortunately, life satisfaction was not assessed at the 28-week period due to scheduling problems outside of the experimenter's control. Additionally, there was a minor but nonsignificant improvement on the global measure of cognition MMSE. Finally, the GIST group universally liked the intervention and believed it to be helpful. The data from this small trial, therefore, support the application of a larger treatment trial, with tighter controls, for the treatment of depression among elderly, cognitively impaired patients in LTCs.

Treatment studies are difficult to do in LTC. They require considerable effort and time working with a population that is frail and compromised. Given this, there are a number of important

**Table 3.** Paired Samples *t* Test for Initial GIST Group (N = 12) Comparing Change From Baseline at Posttime 2

Pair Differences	<i>t</i> Statistic <sup>a,b</sup>	<i>P</i> value
MMSE-1 versus MMSE-3	2.17	.057
GDS-1 versus GDS-3	4.60	.001

Abbreviations: GDS, geriatric depression scale; GIST, group, individual, and staff therapy; MMSE, Mini-Mental State Examination.

<sup>a</sup>2-Tailed test.

<sup>b</sup>*df* = 11,1.

**Table 4.** Paired Samples *t* Test for New GIST Group (N = 6) Comparing Change From Baseline at Posttime 2

Pair Differences	<i>t</i> Statistic <sup>a,b</sup>	<i>P</i> value
MMSE-1 versus MMSE-3	.2	NS
GDS-1 versus GDS-3	5.00	.001

Abbreviations: GDS, geriatric depression scale; GIST, group, individual, and staff therapy; MMSE, Mini-Mental State Examination; NS, not significant.

<sup>a</sup>2-Tailed test.

<sup>b</sup>*df* = 5,1.

considerations to take away from this study. For one, behavioral activation by way of pleasant events appears to be particularly useful in improving mood and life satisfaction. Those participants who identified a goal and used the group format to obtain their goal showed improved mood over those who did not select pleasant activities as a goal. Furthermore, anecdotal observations of group members indicated that GIST participation enabled residents to build rapport with each other. Most exciting was the observation that the higher functioning residents engaged in more prosocial behaviors with less able-bodied residents. Some participants, in helping others, were able to, in turn, help themselves. It appeared that being more focused on others' needs and having the responsibility of checking in on fellow residents induced more goal-directed behavior.

This trial of GIST in an LTC setting also highlighted several distinctive features that, we believe, made it a fruitful intervention for depression with this population:

- GIST is simple and repetitive.
- The open-group format accommodates those patients who, because of health problems, cannot attend each week.

- Peer modeling motivates higher functioning group members to assist lower functioning members during the week between group sessions.
- Furnishing a dry-erase memory board to each participant works as a visual reminder of positive behavioral goals for group members and staff throughout the week.
- The social connections forged from the group therapy format increases a sense of emotional support among participants.
- Therapist skill is an important variable in treatment success, given participants sometimes difficult personality and/or cognitive factors. The therapist must be active in engaging members who tend to withdraw or tune out in group.
- A reward system for staff participation assists in the pregroup actions (gathering residents) as well as postgroup actions (assisting residents with goal achievement).
- GIST accommodates difficult residents. Frail and compromised residents can participate in groups, provided they are not moderately demented or they do not make up the majority of the residents. Hearing impairment must be attended to.
- Caveat: the introduction of any therapy, including GIST, is challenged by busy LTC staff and a reluctant administration. Administration and staff must “buy in” to the program to achieve success.
- Caveat: Long-term care poses logistical problems that may hamper the gathering of group members to participate, and time needs to be allocated for this.

There were some limitations to this study that should be noted. Participants were not matched on background variables or study measures, as this study accepted all referrals who met minimal criteria regarding cognitive functioning and depression. This was a depression study in LTC first and foremost. We took patients with no cognitive impairment, mild impairment, and some with mild dementia. None were formally diagnosed as such. We wanted to see the power of the intervention in such settings with residents who had at least minimal cognitive strength (MMSE  $\geq$  18). Although participants were randomly assigned and had blinded outcome evaluations, there were other potential confounds that we could not control for, making this a less-than-perfect clinical trial. The samples were small. Other positive activities were also ongoing for many in the GIST group. Furthermore, it was unclear what impact the milieu had on outcomes. Milieu activities consisted of the standard fare available in LTC—bingo, board games, etc. Many, but not all, also were undergoing pharmacotherapy for depression; all were stable on their medications for at least 4 months prior to the study.

For some then, any treatment effect may have been a result of the combined impact of medication and GIST. One other limitation was that we used self-ratings as outcomes; often these can be dissonant from interviewer-based ratings. Finally, we did not adjust for dosing as several members did not attend all sessions.

In sum, we believe that the GIST model is a most appealing treatment option in LTC as it applies many of the necessary components for therapy to work with fragile, older individuals. It optimizes the components of behavior therapy and CBT and does so in a structured and repetitive way. Future research should evaluate GIST's use with larger samples and by comparing it against more standard psychiatric and psychosocial interventions. Finally, the GIST model is inherently flexible enough to be applied in other LTC venues, such as assisted living facilities, congregate housing, and senior centers.

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