

Alternative Approaches to Supporting Individuals With Dementia

Enhancing Quality of Life Through Hypnosis

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This article describes a pilot study ($n = 18$) exploring the use of hypnosis to influence 7 aspects of psychological quality of life in individuals with dementia. Participants were randomly assigned to a group receiving hypnosis, a group involved in discussions, and a group receiving standard care. Using a proxy measure, the results indicate that hypnosis has a positive impact on quality of life on a short- and long-term basis.

Key words: Dementia, hypnosis, intervention, quality of life

The concept Quality of Life (QOL) is one which we would all say we intuitively understand yet would find hard to define both for ourselves and for any particular group. In the United Kingdom, the Conservative Party has set up a Quality of Life Policy Group to investigate every aspect of the quality of life agenda, which, according to the Party, consists of transport, housing, urban planning, public space, pollution, waste, biodiversity and the countryside, energy, and climate change. At the other end of the QOL continuum, questionnaires look at specific groups of individuals (eg, those with chronic diseases) and seek to measure aspects of an individual's life such as enjoyment of food, sex, health, and relationships among other items. Whatever level of definition we choose to express QOL, be it at the level of a nation, group, or an individual, it is a concept that provides some global measure of the current concerns of a society. However, there is need for cau-

tion because of the very real concern that what constitutes QOL may not be generally shared because it is both objective and subjective in nature.¹ This complicates measuring and understanding QOL and is a source of some controversy.² Indeed many studies of dementia care seek to measure QOL from the perspective of caregivers rather than or as well as the subjective perspective of the individuals with dementia. Several studies have demonstrated the importance of appreciating the difference between proxy reports by caregivers and direct reports about QOL by people with dementia.³⁻⁵ What this makes clear is that QOL differs according to the perspective we take and as such we must be clear at the outset of our attempts to understand QOL in a specific setting, what the parameters of

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QOL are going to be, and indeed why those are the relevant parameters. To add to this complexity is the fact that QOL is not the same for different individuals, it is not stable across different types of illnesses, and it is not likely to be stable over the course of a chronic illness.⁶

For people living with dementia, QOL is key in evaluating the impact of treatment interventions.⁷ The problem here is that it has not proved simple to directly measure QOL in individuals experiencing changes in communication and cognition.⁷ A number of measures that have been used with individuals with dementia have been shown to be of limited value. For example, the Schedule for the Evaluation of Individual Quality of Life⁸ and Dementia Care Mapping⁹ are considered to be too complex and other scales have been shown to be too unreliable.¹⁰ Proxy reports by caregivers or trained observers may not capture the subjective experience of people with dementia. In some ways, it is not surprising that QOL is difficult to measure because of its multidimensional nature.^{11,12}

The work reported herein is mindful of these issues and is concerned with positive change in QOL of individuals with dementia living in residential care environments. It takes as its inspiration Kitwood's view that a crucial aspect of dementia care is empowering individuals and promoting their interpersonal relationships.^{13,14} This reflects a person-centered approach that stresses the importance of emotional and psychological aspects of an individual's experience and that these aspects may even take precedence over the physical care. Although this conceptualization does not deny the importance of physical care for individuals with dementia, it recognizes that the clinical presentation of people with dementia is influenced by both their social environment and their internal personal environment.¹⁵

On the basis of Kitwood's earlier work, 7 areas in which objectively monitored change would have a noticeable impact upon the subjectively experienced QOL of individuals with dementia living in care homes were selected as suitable measures.^{13,14} These included (1) concentration, (2) relaxation, (3) motivation, (4) activities of daily living (ADLs), (5) immediate memory, (6) memory for significant life events, and (7) socialization. Although these items were based on Kitwood's ideas, they are not without empirical support for being useful and accepted indicators of QOL. For example, older people consider social contact to be an important aspect of QOL.¹⁶ Similarly, it has been shown that older people living in care environments consider enhanced personal control and autonomy in everyday life to be important aspects of QOL.¹⁷⁻¹⁹ As suggested earlier, it is important to be clear as to which parameters of QOL are

going to be measured and why they are relevant in a particular setting. On the basis of Kitwood's ideas and empirical evidence supporting these items as being important indicators of QOL for individuals with dementia, it is our assertion that these 7 items are useful indicators of psychosocial QOL among persons with dementia living in a care home.

The rationale for exploring the use of hypnosis with this particular group is again based on Kitwood's philosophy of person-centered care in that it can be tailored to the particular needs and preferences of the individual. It is also noninvasive and relatively inexpensive, and there is a research base indicating that hypnosis can have positive effects on aspects of QOL. For example, in a group of 80 pediatric patients receiving painful medical treatments, hypnosis proved to be able to change subjective QOL and produce greater changes in perceived QOL in those patients who received hypnosis.²⁰ Hypnosis has also been shown to reduce anxiety and depression in a sample of 25 terminal cancer patients when compared to an equal number (25) of patients receiving standard care.^{21,22} Other evidence is provided by work using hypnosis with 2 patients with Huntington's disease, which resulted in reduction in physical and psychological symptoms.²³ Such research demonstrates the efficacy of hypnosis when used on its own in a variety of situations. When hypnosis is coupled with other forms of intervention, for example anesthetic^{24,25} or cognitive-behavioral therapy,^{26,27} it has been found to enhance the effectiveness of the original treatment and impact QOL.

Perhaps the most important question regarding the use of hypnosis for improving QOL among individuals with dementia concerns hypnotic susceptibility. It has been suggested that individuals need to be able to concentrate and attend for a sustained period of time for hypnosis to be successful,²⁸ implying that people with dementia might not be suitable candidates. However, it is not clear to what degree concentration and attention have to be present, and this belief has limited the range of populations on which research has been carried out, without its veracity being tested.²⁹ Currently there are no research studies that indicate that individuals with dementia cannot be hypnotized.

A few studies support the notion that people with dementia can indeed be hypnotized. In a single case study, hypnosis was employed to reduce distress in a person with dementia who required lumbar punctures and was also needle-phobic.³⁰ The hypnotic procedure successfully reduced this individual's anxiety so that the lumbar puncture could be performed, noting that this person was an

individual whose intellectual functioning was “determined to be significantly lower than her pre-morbid estimate.”^{30(p60)} Another study with 24 matched pairs of individuals with dementia provides further support for the utility of hypnosis.³¹ Participants in that study attended either a current affairs discussion group or a relaxation training group for 1 hour 3 times a week for a 3-month period. The relaxation instructions included progressive muscle relaxation and what the authors refer to as a self-hypnosis technique. Participants who were taught relaxation through self-hypnosis showed improved performance on ratings of behavioral function compared with the discussion group, and approximately 40% of the self-hypnosis group were no longer considered to be in need of sleeping medication. None from the control group was able to discontinue using their sleep medication.

In summary, the literature suggests that hypnosis can impact QOL for a range of illnesses and that people with dementia can experience hypnosis. The present study sought to determine if hypnosis could produce positive changes on the 7 previously identified items in individuals with dementia, when compared to 2 other groups of individuals with dementia, where one received treatment as usual and the other took part in a weekly discussion group. The first phase looked at changes during the intervention stage, which lasted 9 months. The second phase assessed QOL of participants at the 12-month follow-up.

METHODS

Participants

This study was intended as a pilot to explore the practical feasibility and clinical utility of carrying out discussion groups and hypnosis groups within the care homes and to explore the utility of hypnosis, and as such only 6 participants were assigned to each group. Participants were recruited from 2 care homes and were randomly allocated into 1 of 3 groups, the hypnosis group (HG), the discussion group (DG), and the treatment-as-usual group (TG). The criteria for being given the opportunity to opt into the project were (a) the ability to give consent to taking part in the project and prior to each weekly session (the ability to give consent was determined as per The Mental Capacity Act³²), (b) the ability to comprehend the aims of the project, (c) a baseline score of 4 to 5 on the Global Deterioration Scale,³³ equating to a moderate or moderately severe cognitive decline, (d) the absence of comorbid medical conditions that would preclude the individual from partic-

ipating in either the DG or HG, and (e) the absence of any medication that would contraindicate hypnotherapy.

Once assigned to their groups, DG and HG participants were informed that they were free to withdraw at any time (thus the decision to repeat requests for consent before each hypnosis or group discussion session) and that their decision to participate or withdraw at a later stage would have no effect on their treatment or care. The HG received weekly individual sessions of hypnosis carried out in their single-occupancy bedrooms at their residential or nursing home by one of the authors (D.J.N.). Each session lasted approximately 1 hour. Thus, over the 9-month period each HG participant received a total of 36 hours of hypnosis in 36 sessions. As the author works regularly with individuals for assessments and treatment using nonhypnotic interventions, the identities of the HG participants was kept anonymous to members of the care staff team other than the home manager, who took no part in the monitoring and scoring of study participants. Similarly the DG participants received a total of 36 hours of involvement in discussion groups in 36 sessions. None of the DG participants attended the same discussion group as a number of these were set up in each home at the same time, thus helping to anonymize the identities of DG participants in the study. To further anonymize the participants in all 3 of the groups being considered in this study, a total of 60 individuals (30 from each home), including the 18 under study (9 from each home), were monitored on the 7 QOL items. As this procedure was used to anonymize the participants and thus reduce any scoring bias, these data were not included in the study and were destroyed at its conclusion. Only the authors and the home managers were aware of the identities of the study participants whose data is included herein to further reduce the risk of scoring biases. All participants were first seen as residents and as such any changes in health or other adverse effects were prioritized over the demands of the empirical work.

The hypnosis group

The participants in the HG were 4 males and 2 females with a mean age of 77.2 years (SD = 2.48). Of these participants, four had a diagnosis of vascular dementia, one of Parkinson disease-related dementia, and one of dementia. Prior to the first hypnosis session, each participant received 1-hour consultation and interview to customize the terminology used during the hypnosis sessions. This ensured that the language used was familiar and personalized for each participant and to ensure comprehension of suggestions that were to be used. Participants were also

introduced to the process of progressive muscle relaxation to ensure that they were able to engage with this process.

The discussion group

The DG participants consisted of 2 men and 4 women, with a mean age of 79.7 years ($SD = 8.78$). Of these participants, three had a diagnosis of vascular dementia and three of dementia. The DGs met weekly for 1 hour and discussed issues based on current affairs on a broad national and international scale and their own in-house political and social concerns. These groups were run by each home's Activities Coordinator, who was a full-time member of the home staff. The groups included individuals who were not involved in the study, as mentioned earlier. A solid therapeutic alliance was established between the Activities Coordinator and the group members prior to group meetings, and everyone was encouraged to participate.

The treatment-as-usual group

The TG participants, who were all female, had a mean age of 79.8 years ($SD = 3.00$). Three participants were diagnosed with dementia, two with vascular dementia, and one with Parkinson disease-related dementia. This group received the standard treatment from residential home staff of meeting the basic care needs of the individuals in that group. They, along with 42 coresidents, were monitored on a weekly basis, as were the HG and DG, but they did not receive an hour of extra input each week.

Procedure—hypnosis group

Consent was taken for hypnosis before each session and following this participants were induced into hypnosis in 3 phases: (i) eye closure, (ii) progressive muscle relaxation, starting at the scalp and moving progressively down toward the feet, and (iii) a permissive induction. Permissive inductions “ask” each participant to allow oneself to become more relaxed, based on the belief that hypnosis is something that one does to oneself rather than something that is done to an individual.³⁹ Subsequently, the session moved on to the deepening procedure, which is employed both to relax the participant further and to make him or her more susceptible to suggestions made during the therapeutic part of the session.³⁹ It was this part of the process that relied on the information gathered from HG participants at their initial consultation so as to ensure that imagery each participant mentioned could be avoided or included as necessary.

At the conclusion of the deepening phase, an ideomotor response (IMR) was invoked from the participant. Although there are debates as to the nature of IMRs,⁴⁰ it is considered a useful tool within hypnosis for a variety of reasons.³⁹ Our interest in using an IMR was first to ensure that the participants were not simply asleep, to have a quick measure of the level of hypnosis achieved by the preceding processes, and to check that participants were prepared to move on to the intervention stage. IMR has been used as an indirect measure of the level of hypnosis; its use reduces the amount of time required during the hypnotic procedure, which is potentially crucial in a participant group such as this one. Further examinations of depth of hypnosis might have been possible but it was not the intention of this research to explore the potential effects of, for example, positive kinesthetic hallucinations on individuals with dementia. The IMR procedure used here involved the first finger of the nondominant hand of each HG participant rising to the suggestion that the finger was feeling lighter and that it was rising without any conscious effort. The first finger of the dominant hand was used to indicate if the participant was ready to go onto the intervention stage of the procedure. If an IMR could not be achieved or a participant did not signal that he or she was ready to proceed, further deepening material was used before coming back to the IMR stage. If an IMR could not be achieved at the second attempt then the session was abandoned and participants were slowly brought out of hypnosis and reorientated with respect to place and time. Of the total of 216 times that IMRs were attempted (6 participants \times 36 sessions), five were not invoked the first time around (<2.5%) and one was not invoked the second time around, resulting in one session in total being abandoned.

A successful IMR initiated the therapeutic stage of the session, which consisted of direct suggestion, relating to the 7 items described earlier, along with additional CRC suggestions (Calmness, Relaxation, and Confidence). Examples of the statements are provided below.

- At the end of this session, and between now and the next time I see you, you will feel more relaxed and at ease, more motivated to do the things you want to do.
- You will have clarity of thought; you will be able to concentrate for longer periods of time.
- You will have fewer concerns and less feelings of anxiousness.
- Spending time with others will have meaning and you will want to spend time chatting with others.

Termination of each hypnosis session involved removal of the IMR and reversal of the deepener so that participants

experienced themselves gradually and slowly moving away from their chosen hypnotic image and becoming more aware and alert along with the suggestion that they would retain the feelings of calmness, relaxation, and confidence for as long as they wanted. Finally they were reoriented with respect to time and place and asked to report any side effects.

Data collection

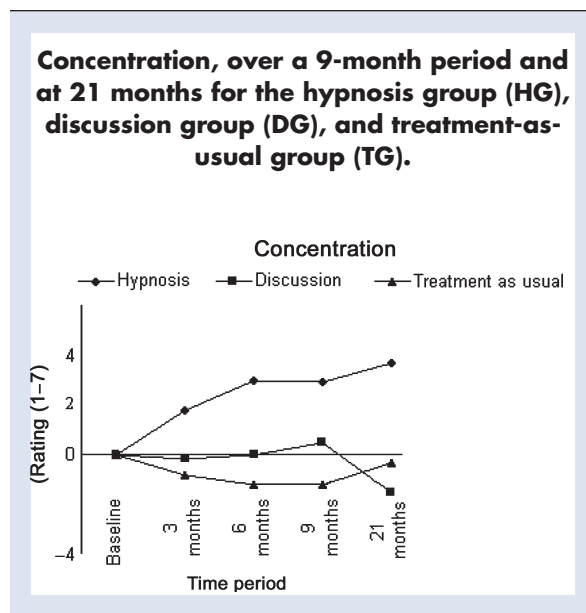
For each of the 7 items, all 60 participants were rated on a 7-point Likert scale, assessed once at the start of the study period and then at weekly intervals. To ensure that any changes were not due to the immediate effects of either discussion or hypnosis, these assessments were made 2 days before the next weekly session was due. A written staff guide was used to train and support nursing staff in scoring individual participants on each of the 7 items. Nursing staff were unaware of the experimental study until its conclusion and were informed that the monitoring task was part of an initiative to measure QOL in the 2 homes. As discussed earlier, the 7 QOL items chosen for measurement were based on Kitwood's work and previous research examining QOL in a variety of populations.

RESULTS

Data include those collected in the 9-month experimental phase and the 12 postintervention phase of the study, looking at changes in overall QOL and at changes over each of the 7 QOL items. Each figure shown below indicates the "mean change from baseline" (ie, before any intervention) for each of the groups, allowing the 3 groups to be compared to one another. This also allows us to take into account any initial between-group differences that may have existed because of, for example, the fact that the TG participants were all female. However, this also means that the scores on the figures do not equate to recorded Likert scale ratings but to the direction and magnitude of change.

The individual means are based on the subjective assessments of trained nursing staff and as such it is clearly possible that the scoring criteria used by different staff members were different. To investigate the possible impact this may have on the findings, a random sample of measures were double-scored by a second member of staff to measure interrater reliability. Approximately 5% of the total number of scores, across all groups and all times, were double-scored, giving a Cronbach α of .72 (>.7 is considered acceptable). The first 4 data points for each group (ie, baseline, 3 months, 6 months, and 9 months) presented on the

FIGURE 1.



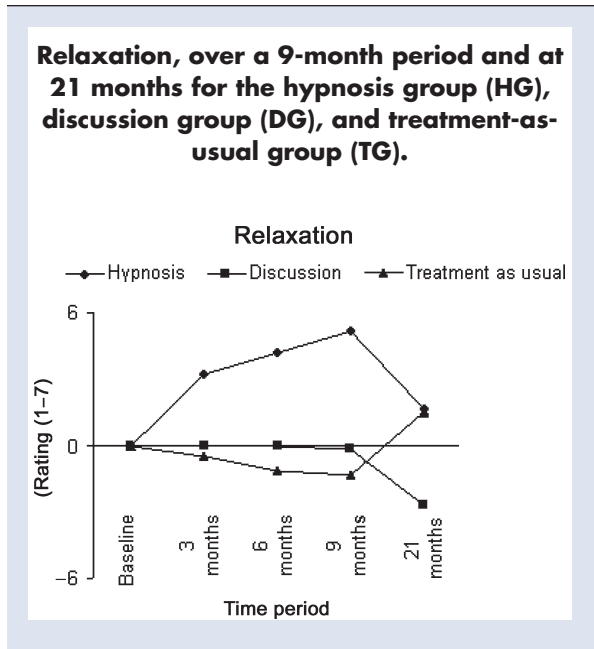
figures are those covering the intervention period of the study, the last point on each line represents the mean score at 12 months postinterventions, which equates to 21 months from the start of the baseline measures.

Figure 1 shows changes in levels of concentration for the 3 groups. From baseline, the HG shows an increase over the study phase and at 21 months the HG still demonstrate an increase in observer-rated levels of concentration. The DG's performance shows little change from baseline during the study and a long-term decline in assessed concentration, falling below that of TG participants, who have shown a gradual decline during the study, but a recovery almost back to baseline by the 21-month retest phase.

Figure 2 presents the change in observer-rated relaxation for the 3 groups. The HG participants show a gradual increase over the 9 months of the study phase but their previous superior overall relaxation is demonstrably reduced after 21 months and their performance at this point in time is the same as the TG participants. Again, the DG participants show a reduction in their previous continued baseline level of relaxation, to a level below that of the TG participants. The TG participants show a decline in relaxation during the study, with a marked increase after 21 months.

Figure 3 presents the observer-rated change in motivation, showing that the HG participants showed a marked increase by month 3 and were still rated as increased in motivation from the baseline measure, although the

FIGURE 2.



gradual decline from 3 months has continued, whereas the TG participants show a gradual decline and remain less motivated from their baseline measure after 21 months. The DG's performance remains unchanged throughout the course of the study.

FIGURE 3.

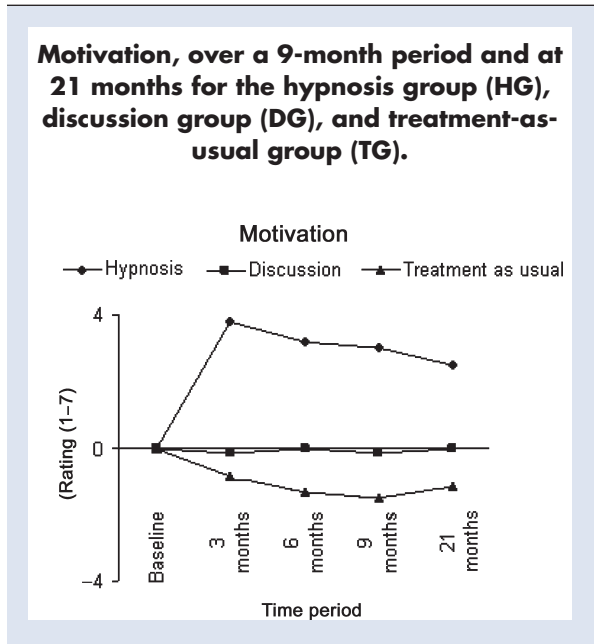


FIGURE 4.

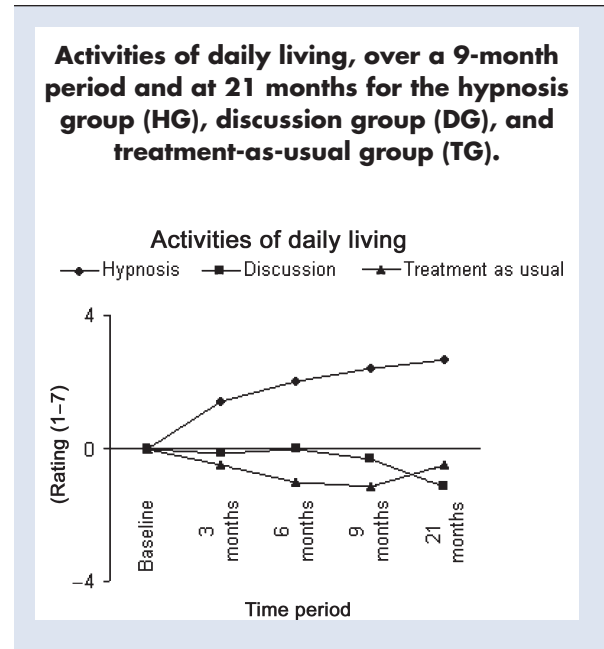


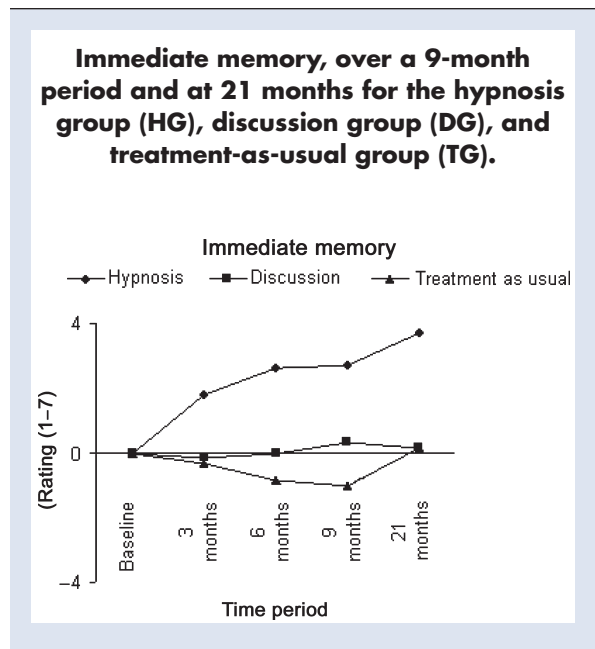
Figure 4 (the observer ratings for activities of daily living) shows that the HG has demonstrated increasing improvement in engagement with these kinds of activities over the other 2 groups. The DG shows a continued baseline level until month 9, when it falls and continues to fall until the postexperimental stage. The TG shows a gradual decline over the 9 months of the experimental phase, with an improvement after 21 months.

Figure 5 presents the observer ratings for the 3 groups on immediate memory. The HG participants show an overall and sustained improvement, the DG participants remain basically unchanged throughout the study whereas the TG participants show a slight increase in rated when measured at 21 months, recovering from their gradual decline during the 9-month experimental phase.

Figure 6 presents the observer ratings for memory for significant events for each of the 3 groups. The HG show an increase and maintained increase in rated memory for significant events, the DG shows a noticeable decline when rated at 21 months, having performed at baseline throughout the study, and the TG shows an increase in performance at 21 months after having shown a gradual decline in rated performance.

Figure 7 shows the observer ratings for socialization for each of the 3 groups. The HG shows a gradual increase in performance over the 9 months of the experimental phase and a slight drop at 21 months, the DG also shows a

FIGURE 5.



decline at 21 months, having performed almost at baseline throughout previously, and the TG shows a slight increase at 21 months after a gradual decline during the 9 months of the experiment.

FIGURE 6.

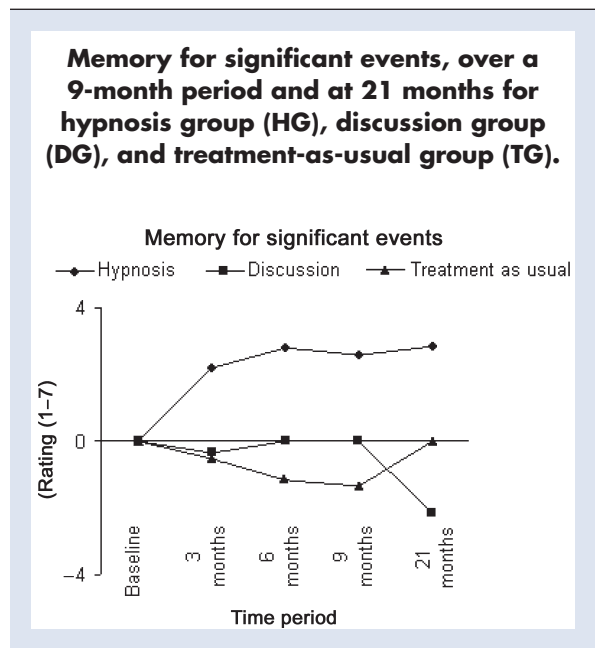
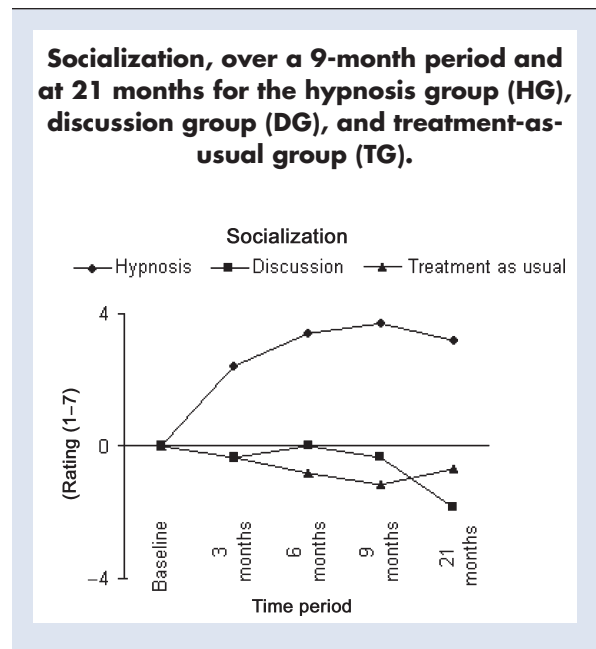


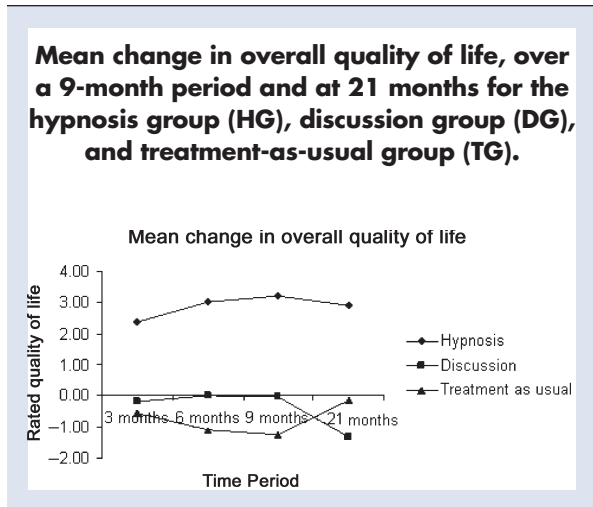
FIGURE 7.



The general pattern of the data is that the HG shows increases in observer-rated performance during the experimental phase of the study and maintains this improved performance over baseline in 3 QOL areas: concentration, immediate memory, and activities of daily living. There is a gradual decline in motivation, which was apparent during measures at 6 and 9 months, after an initial increase at 3 months. Socialization and memory for significant events remain stable, and only ratings of relaxation show a marked decline for the HG, although this does still remain above baseline measures.

For 1 QOL area, motivation, the pattern of the DG performing at baseline and the TG showing a gradual decline in performance during the experimental phase is maintained at 21 months. In the remaining cases the TG shows evidence of increased mean ratings, the largest of these occurring in the measure of relaxation, whereas the DG shows evidence of decline across all the remaining measures.

Figure 8 presents the mean change in overall QOL by combining scores of the 7 areas, excluding the baseline (which would be zero for each group). The figure demonstrates that overall the HG shows an increase in QOL and maintains this level at 21 months, the DG shows little change over baseline during the study phase and an overall decline in QOL once the participants cease their weekly discussions, and the TG shows an overall decrease in QOL during the study and an increase postexperiment.

FIGURE 8.

Analysis of variance (ANOVA) carried out on this overall data found a statistically significant difference between groups ($F_{(2,11)} = 40.09, P < .001$) which post hoc analysis using Tukey's HSD showed was due to a greater difference in QOL for the HG during the intervention phase when compared to the other 2 groups ($P < .001$), the other 2 groups not differing. Further analysis by one-way ANOVA on the data collected at 21 months found a statistically significant difference between groups ($F_{(2,13)} = 18.00, P < .001$), which post hoc analysis using Tukey's HSD showed is because the HG is showing higher levels of QOL at this time point ($P < .001$), the other groups not differing statistically.

DISCUSSION

The data from this study supports previous work indicating that individuals with dementia can be hypnotized.³⁵ Furthermore, it adds to the increasing body of empirical data demonstrating the important contribution hypnosis can make in improving the QOL of individuals with dementia. Importantly, although it may seem obvious, it is crucial to differentiate between improving the psychosocial QOL of persons with dementia and impacting upon the process of dementia. In the particular environment of this study, hypnosis has demonstrated an ability to play a role in changing particular aspects of QOL. This implies that there is a subjective, cognitive component to the common behavioral changes associated with dementia that impact QOL in addition to those changes produced by the biological process of dementia. We suggest that it is through this

subjective component that hypnosis impacts QOL, which leads to the prediction that it should be possible to both differentiate and plan interventions for the objective, biological effects of dementia and the subjective, psychological effects independently.

The result from combining the 7 QOL areas demonstrates that at 21 months from the start of the study, which includes 12 months without further intervention, the HG participants maintained improved levels of QOL. This difference is statistically significant, but is this level of difference clinically significant? Changes in QOL that do not make a difference in the experienced lives of the individuals are without use. The difference between the HG and the other 2 groups in this study equates to approximately 3 points on the 7-point Likert scales used. This would translate in practical terms to a change from an objective assessment of low QOL, to medium, or from medium to high. Anecdotally, reports collected from staff at 21 months suggest that individuals in the HG become noticeably less challenging to deal with, are more involved and active, and show greater signs of positive affect. On the basis of the size of the measured change in overall QOL and the reports of staff, it is reasonable to argue that not only are we detecting a statistically significant difference but also one of clinical significance.

The change in performance of the TG in several areas does appear counterintuitive, unless we assume that there is some form of spontaneous recovery of QOL during the progression of dementia. There are 2 explanations that we suggest. One is that the measures taken at 21 months demonstrate the inherent variability in taking objective measures of items as subjective as QOL. However, the fact that 5% of these measures were double-rated, resulting in high levels of reliability as measured by the Cronbach α , is some protection against this possibility. The second explanation is that the means for the TG may have been artificially reduced during the experimental phase by the lack of data for 2 persons who subsequently died at the completion of that phase of the study. This could have had the effect of increasing the mean of the TG at 21 months. The fact that the DG show, in most of the areas, a decline at 21 months is the pattern of data that is more intuitive, namely, that with little or no intervention at best we can expect QOL to remain stable, but most likely it will continue to decline as dementia progresses if individuals are left without suitable intervention.

The fact that the DG showed a decline in the final phase, other than in the areas of motivation and immediate memory, indicates that the discussion phase of the initial study may well have acted as a protective factor against loss of

QOL. This may have been by providing individuals with opportunities to engage in social activity, or possibly simply that the individuals felt that they were being treated differently. This again is worth further study, as the development of discussion groups is an inexpensive intervention in the maintenance of QOL. Furthermore, we would want to know if a similar stabilizing effect can be produced merely by changing the everyday interactions of staff so that individuals feel important and empowered. However it is important to note that neither statistically nor clinically did the DG and TG participants differ from one another. It is possible that over the longer term, this protective factor may demonstrate its utility, but that is an empirical question.

The most intriguing question that this research leaves us with is what has changed for the HG participants so that the gains they experienced while receiving intervention have, for the most, part been maintained? One possible explanation is that through hypnotically induced relaxation, the HG participants had more cognitive resources available for engaging in the activities that contribute to the measures of psycho-social QOL considered in this study. The changes in mental function associated with dementia could be thought of in terms of available cognitive capacity, that is that we naturally have a limited pool of cognitive resources and it is this that limits our performance under, for example, dual-task conditions.³³ The biological changes associated with dementia are responsible for the objective changes in cognitive abilities and behavior by reducing the maximum size of the pool of resources available for cognitive tasks. The more that this pool is reduced, the greater the deficiencies in performing tasks, to the point that what seems like a simple task, that is, making a cup of tea, makes such demands on the limited resources (keeping track of what one is doing, what one has done, what still needs to be done, the order in which things need to be done, where the relevant items for the task are kept, etc) that they can no longer be successfully completed. We hypothesize that further changes in abilities and behavior can be thought of as due to the subjective awareness of changes in, for example, memory for people, places, loss of concentration, attention span etc. We suggest that the individual's subjective awareness of the gradual loss of ability leads to increased levels of anxiety and depression, which are known to involve active cognitive processing³⁴ and as such acting to further reduce the available capacity of persons with dementia. This results in an even greater loss of ability (memory, motivation, etc) than is due to the biological processes alone because cognitive resources are utilized in the maintenance of the anxious and depressed

moods. By decreasing anxiety and depression through positive suggestion and relaxation while under hypnosis, it is possible that we are freeing up these otherwise engaged resources so that they are available for other cognitive tasks. It is important to keep in mind that the resources made available will be limited by the biological processes of dementia and that we are not suggesting that hypnosis can act to recover resources lost through dementia.

The fact that these same positive changes are not produced (either at all or to the same extent) by engaging persons with dementia in activities such as discussion groups is not surprising according to the above hypothesis as these activities are having to compete with the "tasks" of depression and anxiety.

Clinicians have very little in the way of medical treatment to assist people to live with their dementia in a positive way. For example, the controversy in the United Kingdom surrounding the use of cholinesterase inhibitors has led to the recent NICE Guidelines advising their use only in the moderate to severe stages of Alzheimer disease. This means that we must aggressively pursue alternative approaches for those at the early stages, and hypnosis is just one such option now available to clinicians to impact QOL. In addition, this kind of intervention is much more person-centered and dignified than psychotropic medications commonly prescribed for behavioral challenges. Of course the use of hypnotherapy is not without limitations, as it requires trained staff and this may remain a major hurdle for its widespread testing and use.

There are a variety of issues with a study such as this, the majority of which we have highlighted. For example, the ratings were subjective and were not checked for validity against standard QOL measures. However, this is clearly an issue requiring further investigation. There is the added difficulty that the groups were not matched on potentially important factors such as hypnotizability and suggestibility, which may have influenced the results. Nevertheless, it should be noted that even if the HG participants were a biased sample of particularly hypnotizable individuals, this research still indicates the potential use of hypnosis for producing positive changes in QOL.

A notable limitation of this study is that the perspectives of persons with dementia were not measured. We now prefer to look at QOL from their perspective and are indeed beginning work to include them in assessing the impact of interventions. Another limitation of this pilot study was the small numbers of participants, with a variety of diagnoses, but we plan to conduct a similar study with a larger sample. In addition, there is the possibility that some of the differences found between the groups are due to the difference

between individualized and group treatment, that is, the HG and the DG. However, the likelihood of this is reduced to some extent because one of the authors, as part of his routine practice, assessed all of the individual participants on a regular basis and was responsible for ensuring their continued consent throughout the project, requiring that each participant receive a degree of one-to-one contact. Further empirical work is necessary to rule out this possibility. This pilot study provides a good basis for further work to uncover the limits of using hypnosis to improve the QOL of persons with dementia, and to develop a better understanding of how hypnosis is acting to produce these changes.

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