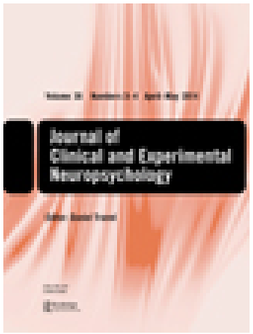

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The effect of learning an individualized song on autobiographical memory recall in individuals with Alzheimer's disease: A pilot study

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ABSTRACT

Numerous neuropsychological studies have investigated the effect of music on patients with Alzheimer's disease. Findings suggest that music can improve behavioral symptoms, but its potential effects on cognitive abilities of patients still require more investigation.

In this 2 × 2 crossover study, we measured the impact of learning an individualized song on autobiographical memory recall and other cognitive abilities in 12 patients with mild to moderate Alzheimer's disease. For each patient, one favorite song of the patient and one autobiographical memory with positive valence were associated to create a new personalized song. This song was taught to the patient by a speech and language therapy student throughout 10 sessions. This training period and a non-training period were proposed in a counterbalanced order between participants. We tested participants' autobiographical recall and general cognitive abilities at three time points: at the start of the experiment, at crossover, and at the end of the experiment.

After excluding one outlier, results showed a significant improvement in the retrieval of the autobiographical memory and in general cognitive abilities after song training compared to the non-training period. Overall, our findings suggest that the use of personalized songs may be a useful and motivating tool for addressing the decline of autobiographical memory and of cognitive functions in general in persons with Alzheimer's disease.

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Dementia; cognitive functions; musical training; speech therapy; Neurologic music therapy

Introduction

Given the lack of curative treatment for Alzheimer Dementia (AD), the World Health Organization (2017) recommends the use of non-drug treatments to reduce the impact of symptoms and slow down the disease progression. Of these treatments, music-based therapies have been the subject of numerous research over the last decade. This interest was stimulated by evidence of a relative preservation of musical memory in AD (e.g., Jacobsen et al., 2015). Furthermore, familiar music seems to be a privileged stimulus to influence emotions and memory, even in patients with dementia, thanks to its aesthetics, hedonic, autobiographic and semantic dimensions (Baird & Samson, 2015; Laukka, 2006). One of the psychological functions of spontaneous musical listening is to reinforce identity and belonging (Laukka, 2006; Ruud, 1997), needs that are deeply hampered by the decline of autobiographical memory in AD. Alteration of autobiographical memory has indeed consequences on an individual's identity by weakening its coherence (Addis & Tippett, 2004). Music has a strong evocative power, triggering frequent autobiographical memories, associated to strong and often positive emotions (Janata, Tomic, & Rakowski, 2007). Music often evokes nostalgia, particularly in the elderly (Juslin & Laukka, 2004), but also pride (Juslin, 2013). It would furthermore facilitate the recollection of specific personal information in AD (Chevreau, Nizard, & Allain, 2017). According to El Haj, Fasotti, & Allain (El Haj, Fasotti, & Allain, 2012), after listening to the song of their choice, AD patients were able to recollect a more precise autobiographical memory, supported by stronger emotional content, than after being exposed to a period of silence. No other control condition was included in this study.

Some research has also shown that music can support learning of new verbal information. Bigand and Moussard (2011) and Baird, Samson, Miller, and Chalmers (2017) have shown that AD patients were able to learn a new song. Palisson et al. (2015) investigated the specificity of the mnemonic effect of a musical support in AD patients. They found that the recall of a sung text was better than the recall of a spoken text associated to a silent movie or a spoken text without association. Comparing sung and spoken

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encoding, Simmons-Stern et al. (2012) also reported a mnemonic effect for sung information, but only for general (e.g., the theme of the song) and not specific information (details included in lyrics). Creating an associative link between words and lyrics in a song might lead to deep encoding likely to facilitate long-term stockage and recall (Moussard, Rochette, & Bigand, 2012). Furthermore, learning new lyrics have been shown to be easier with a familiar melody than an unfamiliar melody, by alleviating the memory load (Moussard et al., 2012; Purnell-Webb & Speelman, 2008).

Paradoxically, while cross-sectional studies often report positive effects of musical stimulation on emotion, memory and even more globally cognition in AD (e.g., Sihvonen et al., 2017; Thompson, Moulin, Hayre, & Jones, 2005), clinical evidence in favor of the efficacy of music-based therapy remains low. In a meta-analysis of 16 music-based therapeutic studies, only reduction of depressive symptoms and of behavior problems was reliably observed, while effects on cognition were small or absent (Van Der Steen et al., 2017).

In our present study, we investigated the effects of learning a personally tailored song on the ability to recall a particular autobiographical memory and on other cognitive tasks in 12 AD patients. Songs with lyrics related to one of the patients' personal memories were created, set to the tune of a melody familiar to them, and taught over 10 individualized sessions. The recall of a personal memory and a set of cognitive tasks were evaluated at baseline, after the training period, and after a period without training, placed after or before the training. Our hypothesis was that song training could improve the memory of the related autobiographical event, compared to the spontaneous evolution of this memory during a non-training period. In addition, we also made the hypothesis that this training could improve or at least maintain the other cognitive abilities of patients.

Material and methods

Participants

Twelve patients with probable Alzheimer's disease at a mild to moderate stage (according to DSM V; American Psychiatric Association, 1994) and NINCDS ADRDA criteria (Mckhann et al., 2011), MMSE score between 15 and 26 were recruited from memory clinics, nursing homes, and day care centers in the Lyon area in France. Patients had to have normal or corrected-to-normal vision and hearing. They also had to be supported by a family care partner who agreed to respond to a memory collection task. After having obtained the written consent of patients and their care partners, the patients were split into two groups of six patients (see Table 1). Convenience factors as the availability of patients to attend the training without interruption were taken into account to assign patients to groups. The study protocol respected the Declaration of Helsinki.

Material

The experimenters (two future speech and language therapists) created a personalized song for each patient after having asked the patient to propose three songs that he or she liked in order of preference, and three happy and important episodic memories from the past 10 years. If the patient was unable to indicate his/her favorite

Table 1. Patients' characteristics for the entire group (N = 12) and the two subgroups (N = 6 each), having served for the two orders in the cross-over design. Patients from both groups participated in the same training, and just differed in order of the intervention (see Figure 1).

	Entire group (N = 12)	Group 1 (N = 6)	Group 2 (N = 6)
Gender Women, *n* (%)	7 (60)	5 (83,33)	2 (33,33)
	Mean (SE)	Mean (SE)	Mean (SE)
Age	83.83 ± 7.5	83.16 ± 8.25	84.50 ± 6.75
MMSE	21.66 ± 3.27	21.66 ± 2.86	21.66 ± 3.67

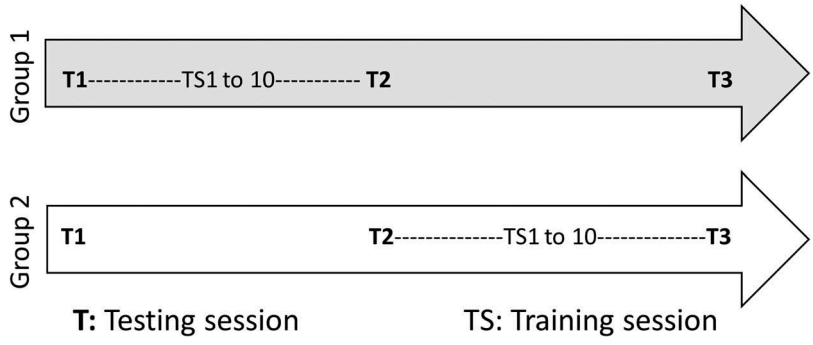

Figure 1. Breakdown of training for the two groups.

songs, the care partner proposed some songs or singer names to the patient, with possibly the help of the patient's personal CD collection. No constraint was imposed to patients relative to the song choice. If the patient was unable to evoke three happy memories, the experimenter proposed large themes like anniversary/birthday, holidays or family gathering. The care partner could then suggest options to the patient who chose the memories he/she wanted to propose. Without the patient present, the care partner then completed details regarding these memories according to six elements: the date (month and year), place, people present, relationships with the present people and the action that was carried out. One of the three memories was then paired with one of the three songs to compose a new, personalized version of the song. Each song averaged 70 unique words (in general two verses and one chorus). The patients' preferred song and preferred memory were used in most cases. The second or the third memory was preferred when the first memory was too diffuse in time or not including the patient personally (but only a close relative). A major tonality was preferred to a minor tonality in order to associate a "happy" melody for the happy memory. Popular songs were preferred to opera. In the case of the particular situation that a given memory matched with the theme of the original lyrics of a song, the second or third choice could also be selected to facilitate both song creation and song learning (ex: the song "la ballade des gens heureux" -"stroll of happy people"- was easily associated to the memory of a stroll). The lyrics were freely written by the experimenters so that the song integrates the six elements of information about the selected memory (cited each once along the song), be faithful to the report of the care partner, integrates rhymes and be close to the metrics of the original song. Songwriting aimed at creating a pleasant, joyful and easy-to-sing material (see an example in Appendix). The used original songs were "Milord" (Edith Piaf), "Mon amant de St-Jean" for two patients (Lucienne Delyle), "Mexico" (Luis Mariano), "Le Mexicain" (Les Compagnons de la chanson), "Que la montagne est belle" (Jean Ferrat), "La bohème" (Charles Aznavour), "La ballade des gens heureux" (Gérard Lenormand), "Quand la musique est bonne" (Jean-Jacques Goldman), "L'internationale" (Eugène Pottier and Pierre Degeyter) for the french artists, and "Camisa Negra" (Juanes) and "Don't be cruel" (Presley) for international artists.

Procedure

During ten one-to-one sessions, the experimenter taught a patient his/her song during 20-min sessions twice a week for five weeks (see Figure 1). Sessions took place at the patient's home or in a quiet and isolated room at the nursing home or day care center. The care partner did not attend the sessions.

During sessions, the experimenter sung the entire song with the new-personalized text once. Then, a target phrase was sung by the experimenter, followed by the participant and the experimenter in unison. Finally, the patient produced the phrase alone. During sessions, the experimenter could use a very brief cue (verbal or gestural prompts) to help the patient to start singing. The key in which the experimenter sang was adapted to the patient vocal range. The visual material (song text) was not presented to the patient and singing was always a capella. The criterion before moving to learn the next line was only one forgotten word when the patient sang alone. To reach this criterion, the phrase could be repeated with the experimenter as often as necessary. The speed of learning was adapted to each participant. However, so that each patient could work on the entire song and therefore all memory items, no more than four sessions were dedicated to the first verse. With this constraint, the second verse and chorus had three dedicated sessions each, even though the first verse might not have been completely memorized.

Each patient had three test sessions (T1, T2, T3) and 10 training sessions over five weeks (Figure 1). Group 1 had a pre-test (T1) followed by 10 training sessions (5 weeks), a mid-test (T2), a non-training period (5 weeks) and a post-test (T3). Group 2 had a pre-test (T1), a non-training period (5 weeks), a mid-test (T2) followed by 10 training sessions (5 weeks) and a post-test (T3). Patients thus served as their own controls, as we compared the potential changes of performance over the training period and the non-training period. Patients were split into two groups counterbalanced for the order of the training period and the non-training period. This cross-over design is particularly adequate in the context of a degenerative disease as there is the possibility of cognitive and behavioral decline over time. There was no washout period at the cross-over point. Each experimenter trained and evaluated half of each patient group.

To allow for intra-individual comparisons, patients performed the same tasks during the three test sessions, in the following order.

Cued recall

Using the table of memories (used for the personalized song), the experimenter asked the patient six questions concerning the month, year, place, people present, relationships with said people and the action carried out. The cued recall was assessed on the basis of these six elements of information. When patients did not

know the answers, the experimenter did not correct or inform him/her.

Phonological and semantic fluency (Cardebat, Doyon, & Puel, 1990)

Fluency was used to analyze executive functions and language functions. For each test session, the letter P was used for phonological fluency and animals for semantic fluency.

EFCL – ("Evaluation des Fonctions Cognitives Langagières" – Language Cognitive Functions Assessment", Orellana, 2005)

This French test battery contains three main components:

(1) Verbal Abilities (Verbal EFCL) – with two sub-tasks: i) Naming – Patients must name 44 images. ii) Image description – Patients must describe one everyday scene in a butcher's shop.
(2) Memory – with two sub-tasks: i) Recollection and recognition – Patients must read and memorize five words, recollect them once immediately and once later on (after an interfering task of counting in fours from 0 to 40), then recognize these words in a list of semantically similar and distracting words (after an interfering task of crossing out the letter "b"). ii) Text comprehension – The experimenter read a short story (47 words) about which the patient must then answer four questions.
(3) Executive Processes – with seven sub-tasks: i) Linking objects and uses – Patients must link five verbs to five nouns that they read aloud (e.g., "hammer": "to hit"). ii) Producing sentences – Patients must build a sentence using two or three words given by the experimenter. iii) Oral understanding of implicit sentences – Patients must clearly and coherently explain two short statements read by the experimenter (e.g., "*A violent storm blew throughout the night. The lord of the manor will call the glazier tomorrow*"). iv) Mathematical problem solving – Patients must solve three short problems, which mainly require working memory (e.g., "*How can you split twelve books across three shelves*?"). v) Similarities – Patients must find a category from two exemplars (e.g., "*what is the connections between an orange and a banana?*"). vi) Chronology – Patients must break down the steps of an action into chronological order. vii) Functional matching – Patients must complete four short sentences.

The scores obtained for each sub-task were added together to obtain the scores of the three main components (Verbal EFCL, Memory EFCL, Executive Processes EFCL). We used these component scores and the total score (Total EFCL) for the statistical analyses.

Results

All patients participated in the entire protocol (the three testing sessions and 10 songs learning sessions), learned their songs and gave positive feedback to the experimenters about the training. One of the patients was emotionally unstable in interaction with the experimenter and according to the report of the nursing home staff. In addition, at the time of the post-training testing session, her care partner encountered serious health problems, which were a highly disruptive factor for her. She showed a strong performance decrease at this post-training evaluation (the change between post- and pre-test was more than 2 standard deviations different from the average post-pre-test change of the patient group to the total EFCL score). Statistical analyses of the training effect are thus presented below first for the entire group (N = 12), then without this outlier patient (N = 11).

First, we investigated the potential influence of order effects (Group factor). Due to the small sample size, a non-parametric test (Mann–Whitney U test) was used to compare the two groups' performance changes. There was no significant group difference in the Post-Pre scores for the cued recall in response to the music training ($U = 14.5$; $p = .631$) neither in response to the non-training period ($U = 17.5$; $p = 1$), for the fluency tests in response to the music training ($U = 14.5$; $p = .631$), neither in response to the non-training period ($U = 15.5$; $p = .749$), and for the total EFCL in response to the music training ($U = 6$; $p = .066$) neither in response to the non-training period ($U = 13$; $p = .472$). This means both groups had similar changes along each period, and the order did not impact the results. We thus grouped the patients of the two groups together independently of order for the following statistical analyses.

The Shapiro–Wilk test showed that all distributions were normal, with the exception of the cued recall task ($p = .047$) in the post-pre non-training condition, for 12 patients. A paired Student's T-test was therefore used for all tasks, except for the cued recall task where a Wilcoxon signed-rank test was used. Changes between post- and pre-training session performance compared to post- and pre-non-training period performance were analyzed for the cued recall, fluency, Total

EFCL, Verbal EFCL, Memory EFCL, and Executive Processes EFCL scores.

12 patients

We found a significantly greater improvement in cued recall in response to the music training, relative to the non-training period (Z = 2.22; p = .026). However, analysis showed no significant evolution difference between the training period and the non-training period for fluency (t(11) = 0.03; p = .975), Total EFCL (t(11) = 1.43; p = .181), Verbal EFCL (t(11) = −.75; p = .469) and Memory EFCL (t(11) = .86; p = .406). Executive Processes EFCL fell short of significance (t(11) = 1.89; p = .085) (see Table 2 for complete results).

11 patients

Data were reanalyzed after excluding the outlier patient (N = 11; Table 2). Significant differences in changes of performances along these two periods were observed for the cued recall task (t(10) = 2.28; p = .046), Total EFCL (t(10) = 3.44; p = .006) and Executive Processes EFCL (t(10) = 3.41; p = .007) (see Table 2). For these three measures, there was a significantly greater improvement in performance in response to the music training, relative to the non-training period (see Figure 2).

However, we did not observe significant differences in changes between the training period and the non-training period for fluency (t(10) = −.20; p = .848), Verbal EFCL (t(10) = −.62; p = .552) and Memory EFCL (t(10) = 1.52; p = .161) (see Table 2 for complete results).

Discussion

This study showed that the personalized song teaching sessions had a beneficial impact on the autobiographical memory abilities of AD patients. In comparison to the non-training period, the cued recall performance improved for the majority of patients after the music training, with more items reported by the patients when evoking their autobiographical memory. After the exclusion of one patient because of strong emotional lability, associated to serious health problems of this patient's care partner at the time of the second evaluation, the analysis of the score changes to the cognitive tests also showed a significant effect of

Table 2. Comparisons of pre- and post-test differences between training period and non-training period for each task. *Average gain corresponds to the score difference between Post-Pre the music training and Post-Pre the non-training period. Italics indicate values associated with t-tests. Bold indicates values associated with Wilcoxon tests. CR: Cued recall (scored out of 6). Total EFCL: total score of the Linguistic Cognitive Functions Assessment (EFCL in French), rated out of 24. Verbal EFCL: Verbal subscore, rated out of 17. Memory EFCL: memory subscore rated out of 19. EP EFCL: Executive Processes subscore, rated out of 24.*

	AD (*N* = 12)				AD (*N* = 11)			
	Average gain	Confidence interval (95%)	*p*-Value	Effect size (*d*)	Average gain	Confidence interval (95%)	*p*-Value	Effect size (*d*)
Cued Recall	1.50	[0.61;2.39]	**.026***	0.95	1.55	[0.67;2.43]	*.046**	1.04
Fluency	0.08	[−3.45;3.62]	*.975*	0.01	−0.55	[−4.30;3.21]	*.848*	−0.09
Total EFCL	3.60	[0.69;6.52]	*.181*	0.70	5.64	[2.99;8.28]	*.006**	1.26
Verbal EFCL	−0.58	[−1.50;0.33]	*.469*	−0.36	−0.52	[−1.49;0.45]	*.552*	−0.32
Memory EFCL	1.38	[−0.33;3.08]	*.406*	0.46	2.23	[0.57;3.88]	*.161*	0.80
EP EFCL	3.00	[1.04;4.96]	*.085*	0.87	4.14	[2.19;6.09]	*.007**	1.25

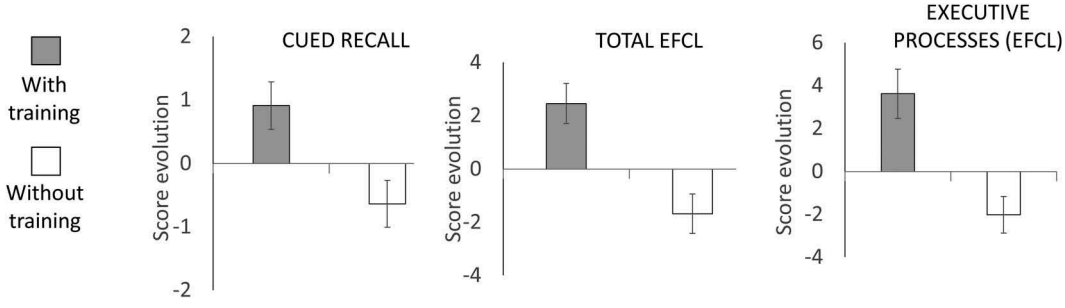

Figure 2. Performance evolution along the training and the non-training period on the cued recall task, Total EFCL, and the Executive Processes EFCL scores for the group of 11 patients. *Error bars indicate the error-type. Positive scores mean that on average patients gained points between the pre-test and the post-test, and negative scores that they lose points. The cued recall was scored out of 6, the total EFCL out of 60, and the Executive Process EFCL out of 24.*

training on executive functions and Total EFCL. In the following, we discuss in more detail both results.

Memory abilities

For the cued recall of personal memories, our initial hypothesis was validated. All patients managed to learn the song, a finding that shows that they are capable of learning new information, in line with Groussard, Mauger, and Platel (2013). Furthermore, the autobiographical memories were recalled more precisely after than before the song training. This suggests that re-learning or reactivation of memory traces of autobiographical memories is possible for AD patients despite a generalized impairment of storage and retrieval of information.

In contrast to Simmons-Stern et al. (2012) who used customized songs to learn practical semantic information, our song lyrics referred to meaningful and positive autobiographical experience. Experimenters anecdotally observed that, when hearing the learned song, AD patients immediately reacted by singing it themselves, although they were unable to restitute the context in which they learned the song when asked how they knew the song. This is in line with a study which suggests an alteration of source memory for AD patients (El Haj, Postal, & Allain, 2012), the memory allowing individuals to remember the date, place, and circumstances surroundings of an event (Phillips et al., 2016). Familiarity for a learned song without remembering the learning context was also observed in a study by Samson, Dellacherie, and Platel (2009). The affective=positive and autobiographical- nature of the lyrics and melody were probably key-elements leading to the success of the training. As shown for instance by Tranel and Damasio (1993), association between a "to-be-learned information" and an affective valence is possible even without the intervention of the hippocampus and the amygdala, damaged in AD.

Previous research has suggested that the familiarity of the selected melody could be a key factor for the effect that song learning might have on the recollection of personal memories (Moussard et al., 2012). In future studies, it could be interesting to assess the impact of familiarity of the material by proposing the learning of personalized songs set on familiar melodies compared to the learning of personalized songs set on unfamiliar melodies. Looking into the support of verbal and gestural prompts for retrieval may also be relevant as AD patients could start singing their song more easily after a very brief verbal or gestural cue.

However, in the present study, improved recollection was only measured for the aspects worked on in the sessions, i.e., the memory directly associated to the text of the song. Song training had no significant effect on the EFCL memory sub-tests[1] (recollection and recognition; text comprehension), thus on memory efficiency for unrelated materials.

Executive functions

Improvement of performance for Executive Process EFCL was more robust in response to the music training than in response to the non-training period in the sample excluding the outlier participant (N = 11). This beneficial effect of the training on executive functions could be explained by the fact that patients were asked to suppress the original lyrics to sing personalized lyrics, which involves inhibition, and thus executive processes. The experimenters noticed that the original lyrics caused very little disturbance to the patients, despite the fact that these lyrics were probably very familiar (the song was one of the favorite songs of the patient).

The Executive Process EFCL results are in agreement with previous data that have suggested that musical activity can have an impact on maintaining or improving executive functions in both children and the elderly. In a study assessing the impact of a short-term computerized music training in children, a significant improvement in a go/no-go task was measured after the musical training, but not after a visual training (Moreno et al., 2011). According to a study by Särkämö et al. (2013) both singing and music listening improved attention, executive function and general cognition in early dementia, compared with standard care. Future studies will have to specify the links between music and executive functions in order to identify the underlying mechanisms and optimize therapy approaches.

Language abilities

For the verbal EFCL tests, performance did not increase more strongly during the training period than during the non-training period (for both reported analyses). This could be explained by the fact that our training was more strongly based on memory rather than language skills. The linguistic content of the lyrics was fixed, with no lexical additions. However, the experimenters noticed a qualitative increase in the patients' desire to communicate throughout the song training sessions. For example, the AD patients' report of their day appeared more detailed during the later sessions compared to the earlier sessions. This could be explained by the fact that they had met the experimenter several times, but also by a specific stimulating effect of music (El Haj et al., 2012). Though this

information is anecdotal, it indicates that future research regarding expressive language may be warranted.

Limitations, strengths, and future research lines

Due to our small sample size (N = 12), the here reported results can be considered as "pilot" results, opening promising perspectives for a large-scale clinical trial. The absence of control activity, in comparison to the music training, enabled us to evaluate the efficiency of the training, but not to pinpoint the factors that underlie the success of the training. Unspecific factors, such as the social dimension of the training (relationship with an experimenter) or characteristics of the experimenter, and specific factors as the rhythm, melody, familiarity of the song or the positive emotional content, could all have influenced the success of training. Therefore, it is currently not possible to ascertain whether the effects of training would have been different with unfamiliar songs or with songs of other emotional valence. These aspects need to be investigated in future studies. Moreover, our protocol-tested re-learning of episodic autobiographical details but did not test whether other memory elements (associated to the selected memory) were reactivated by this re-learning. This remains to be studied in future research.

The potential impact of the patient's background, such as the patient's interest for music or experience with music also need to be further studied. Musicians or music lovers could benefit more extensively from a sung training than non-musicians. Hours of instrumental practice induce long-lasting neuroplasticity and improve music processing and memory (Pantev & Herholz, 2011), which might boost the benefit of a musical training in an elderly person. While interference between original and new lyrics could decrease the benefit of the current protocol in trained singers (robust association in memory of musical and verbal parts), we might also hypothesize that musicians manipulate – and thus dissociate – more easily musical and verbal components. Studies comparing the performance of musicians and nonmusicians with and without Alzheimer's disease (like in Baird et al., 2017) could be important to further investigate the impact of musical training on cognition in the aging population. It would also be interesting to study the long-term recall of the learned song. It could also be relevant to vary how old the autobiographical memory is, in order to study whether old memories, although they are preserved longer across the course of the disease, could benefit from musical training as much as recent memories (Piolino, 2008).

From a clinical perspective, the strengths of this study were to propose personalized training to promote recollection, which could be carried out as a supplement of classical stimulation tools and are rewarding for the patient. This remediation method could also be applied to semantic memory using names and descriptions of family members as song lyrics. Even though this material is not episodic as in the present protocol, family members' names represent another aspect of autobiographical memory, have an emotive quality, are relevant for the patient and potentially emotionally positive and thus share common characteristics with our present material.

Conclusion

Based on the gradual learning of a personalized song, this study exploited the preservation of musical learning capacities in AD patients, despite the memory and language difficulties associated to their disease. This sung training helped patients to re-learn or improve their recollection of autobiographical details. The benefits of training seemed to transfer to other cognitive functions, especially executive functions (for the analyses excluding one outlier participant). Beyond its interest for fundamental research, this study presents a clinical benefit, proposing a therapeutic tool for music therapists and professionals of cognitive stimulation such as language therapists or neuropsychologists, to allow for memory recollection and improvement of executive functions.

Note

1. Although there was a significant effect of the training on the Total EFCL score on the N = 11 sample.

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Disclosure statement

No potential conflict of interest was reported by the authors.

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Appendix

Song of one patient, on the melody of Mexico (Luis Mariano)

Mon souvenir est en Bretagne
Avec Alain mon fils et Anne
Moi je dormais dans un hôtel
La plage était belle
Je ne voyais qu'elle

Il y avait un petit passage
D'où j'admirais le paysage
Bordé de lauriers de troènes
J'étais comme une reine
Oh quel bel hôtel

Refrain :
Bénodet, Bénodet
Août 2005 un bel été
Chaise longue et chapeau de paille
C'est bien beau la Bretagne à Bénodet

Song of one patient, on the melody of La Camisa Negra (Juanes)

C'était en avril 2013
Accompagnée d'ma fille Annick
Qu'on a voulu se mettre à l'aise
La promenade était épique

On était au Parc la Tête d'or
A Lyon et c'était un trésor
On est allées manger une glace
J'étais bien quel bel espace

Refrain :
Les singes tendaient leurs p'tites pattes pour manger
Ça nous a bien fait rigoler
Ah ma fille et moi c'est sacré
Qu'est-ce que j'aime être à ses côtés