

## **Introducing a Fun Karaoke Workshop within a Therapeutic Education Program: Clinical Findings in Parkinsonian Persons**

\*Baldayrou E, \*\*Rouge M, \*\*\*Merelle S, \*\*\*\*Merelle G, \*\*\*\*\*Devevey A

\*Speech Therapist, CRF, France, Quingey ([etienne\\_baldayrou@hotmail.com](mailto:etienne_baldayrou@hotmail.com))

\*\*Speech Therapist, France, Castets ([rouge.manon@orange.fr](mailto:rouge.manon@orange.fr))

\*\*\*Senior Health Manager, CRF, France, Quingey ([s.merelle@chquingey.fr](mailto:s.merelle@chquingey.fr))

\*\*\*\*Speech Therapist, CRF, France, Quingey ([g.merelle@chquingey.fr](mailto:g.merelle@chquingey.fr))

\*\*\*\*\*UFR SMP – Speech Therapy - ELLIAD, University of Franche-Comté  
France, Besançon ([alain.devevey@univ-fcomte.fr](mailto:alain.devevey@univ-fcomte.fr))

### **Abstract**

Clinical signs of Parkinson's disease disrupt patient's daily routine and their quality of life. Among the proposed therapeutic approaches, non-drug approaches include an array of accompaniments devices whose common goal is to prevent or slow down the effects of the illness and early optimize living conditions. This study of seven patients, took place in an institutional context in which all participants follow a CRF Parkinson Program in Quingey (Doubs, France). This program, focused on the Therapeutic Education concept, offers a special fun activity: the karaoke workshop. The aim of this study is to investigate the feelings of patients facing this activity and the effects thereof on their quality of life of each, using a scale of felt. Results indicate a benefit responding to situations and expectations of patients identified at the beginning of their stay. Negative feelings evoked during the early sessions quickly give way to the motivation and to the desire to be with others.

### **Keywords**

Parkinson, physical disability, therapeutic education, karaoke

## **1. Introduction**

Since June 2014, the guide of the care pathway published by the High Authority of Health (HAS in France) recommends the Therapeutic Education as a priority approach in the multidisciplinary interventions. It puts the patient as actor - partner of his health by focusing on what makes sense for him according to his specific needs. Recently, new approaches, more playful, have emerged for patients with long-term illness, but benefits remain questionable. Workshops suffer the weight of occupational label applied to them, sometimes leading to omit therapeutic issues. Evaluated primarily in the context of Alzheimer's disease, the analysis of these practices is very marginal for Parkinson's disease. The Functional Rehabilitation Centre (CRF) of Quingey has been offering a program based on the application of Education Therapeutic ("Parkinson Program") since 2013. In this program a group workshop was established whose main objective is to facilitate social interactions, identified by participants as essential to maintaining their quality of life. At the crossroads of singing workshop and drama class, a karaoke activity, given by a speech therapist, was introduced in the heart of the program. The original approach, both playful and collective, aims to offer a different perspective on accompanying the sick people by making them forget for a moment their daily clinical problems.

## **2. Parkinson's disease**

Affecting 1.9% of the population aged over 65 years, Idiopathic Parkinson's disease Idiopathic (MPI in French) is, in France, the most common neurodegenerative disease after Alzheimer's disease. It is the consequence of a progressive loss of dopaminergic neurons of the pars compacta of the Nigral locus. In this disease, the dopamine system doesn't work properly, resulting in disruption of the automatic motor and posture. Cognitive and emotional dysfunction can also be observed. There are also problems with facial expression, swallowing, speech and voice (including phonatory level (dysphonia), articulation (dysarthria) and prosodic (dysprosody)). These clinical signs disturb their quality of life. One of the most affected dimensions is the psycho-social aspect. Rigidity, dyskinesia and autonomic signs (sweating, salivation, hyperseborrhoea) constitute barriers to interaction and, ultimately, contribute to the isolation of the patient. The "karaoke shop" will therefore aim to limit the severity of the disease to delay the onset of significant disabilities in the lives of patients.

### **3. Song: listening and practice in Parkinson's disease**

The use of song as a therapeutic carrier was the subject of several studies demonstrating positive effects of this practice in the MPI. First of all, singing voice and speaking voice involve joint work. Singing intensifies several constitutive parameters of speech and requires a defined posture, ample breathing, precise articulation and a sufficient volume. The effects of singing on dysarthrias are proven. The fundamental become low and stable, intelligibility and speech rate get better. Accompanied by music, singing is stimulating for the body and mind. Music and sound signals are increasingly used in the treatment of motor disorders of Parkinson's patients. The sound induction promotes fluid movements caused by the rhythm of the music and a relaxing action on the muscular and autonomic level. Singing has an effect on behaviour and cognition. It conveys a wellness and a desire for integration and socialisation. During singing group workshops, the pleasure of being together motivates rehabilitation and offers a moment of distraction and emotional sharing. Supported by the Association France Parkinson, the creation of Parkinson's choirs also confirms that this therapeutic carrier offers multiple possibilities of actions on motor and cognitive abilities of the patient.

## **4. Methodological context**

### **4.1 Participants**

Seven patients were selected based on the following criteria:

- Presenting idiopathic Parkinson's disease from mild to severe stage.
- Being part of the CRF under internal regime (long-term inpatient) or external regime (day patient).
- Following the Parkinson program developed by CRF.
- Presenting problems with voice quality and / or the fear of loss of social life at the end of the Custom Care Project (PPS results of a multi professional consultation which itself followed a medical, psychological and social assessment of the patient by the doctor and different therapists).

No exclusion criteria were chosen. We did not put any age limit. The workshop is open to anyone enrolled in the program, despite cognitive impairment. The study includes 3 men and 4 women. Each patient joined the program for a period of five weeks. Among the participants, five are followed by a speech therapist.

## **4.2 Workshop**

Creating a fun workshop was motivated by the identification of specific needs collected during the drafting of the PPS. Two dimensions were revealed during the initial patient interview:

- The fear of not being able to integrate into society face the gaze of others and therefore feel excluded because of their illness.
- The desire to find an adequate voice quality to communicate.

Therefore, individual speech therapy sessions were conducted in order to remedy the weak voice. Focused on the use of LSVT (Lee Silverman Voice Treatment®), the sessions have both a physical, physiological and psychological effect. The patient slowly regain confidence in their abilities and in themselves. However, individual intervention proved to be insufficient. Therefore, participation in a fun workshop was imposed in the program to better address social suffering. From this observation, was born the idea of creating a group activity based on conviviality and the pleasure of being together: a Karaoke workshop. A singing workshop offers the opportunity to combine several voice parameters such as articulation, voice quality and suprasegmental elements such as prosody. At the crossroads of singing workshop and drama class, Karaoke leads participants to interpret all the vintage songs selected each week. The aim is not the interpretive talent but rather to forge links between the candidates around happy songs. Far from the usual image of karaoke where only one person has to sing a song in front of an audience, we have adapted this practice to focus on meeting and sharing, where participants, patients and caregivers spend a fun time together. Equipped with communication tools learned during speech therapy sessions, the participants find themselves in an environment which encourages them to overcome their fear of what other people think, and helps forget, just for a moment, their illness.

## **4.3 Goals**

Three categories of objectives have been identified

### **4.3.1 Communication goals**

- To stimulate verbal communication through conversation and exchange.
- To seek non-verbal communication: gestures and facial expressions
- To apply communication tools learned during individual speech therapy sessions: the mobilisation of a posture and a satisfactory vocal intensity

### 4.3.2 Relational goals

- To be encouraged by group dynamics
- To ignore the gaze of others.
- To voluntarily participate in the workshop.
- To be open to others

### 4.3.3 Personal goals

- Not to be afraid of the judgment.
- To accept yourself
- To show dynamism and motivation

## 4.4. Workshop description

- Frequency and number of sessions

The fun workshop is part of the schedule of the patient over five weeks, at the rate of one afternoon a week, for a 45 minute session.

- Setting and installation

One room is specially reserved for this activity offering personal space dedicated to fun and to "let go". The chairs are arranged in a semicircle facing the visual support, a 63-inch screen.

- Group leader

He seeks to create a safe space. It is important to enhance the performance of each adopting a positive attitude and a real dynamism. The leadership is here referred to speech therapy, pointing postural support and voice projection. Within the workshop, other caregivers can join the group. However, the medical coats should be set aside to preserve a degree of equality among the participants, caregivers and patients.

- The musical repertoire

At the beginning of each week, a list of twenty songs is submitted to the participants to pre-select those they wish to interpret. Additional songs can be added to the list if someone wants a particular artist. The songs range from love songs to Rock. The selected songs have simple lyrics and a strong rhythm to encourage the participation of candidates.

- Supports Karaoke

In the workshop, we wanted to keep the original song and have the support of the singer's voice behind the music to help participants in their performance. The lyrics scroll

across the TV screen. When the selected songs have no lyrics written on the screen, a book with the entire repertoire is available as a singing support

#### **4.5. Course of a typical session**

Each workshop begins with welcoming the participants, then everyone takes a seat, facing the karaoke support. This first moment of exchange and conviviality is an opportunity to discuss various topics. We may also talk about the disease and experience of each individual. We selected songs liked by the whole group of participants to create a pleasant atmosphere. Singing is done sitting or standing, but always in a group, in unison, not to cause embarrassment for the candidate. They all encourage each other, sing together and clap each performance. Catchy choruses lead us to clap our hands to the rhythm of the music. The session includes a few breaks around a glass of water where we the artists and songs are discussed. Sometimes, participants talk about their memories from the selected song. The session concludes with a discussion time. The last session ends with a farewell party.

### **5. Methods**

A feedback questionnaire was developed during the introduction of the karaoke shop within the program. The latter was proposed to each patient at the end of the five workshop sessions. It provides an overview of the potential benefits brought to the patient during his participation. The tool is organised as follows:

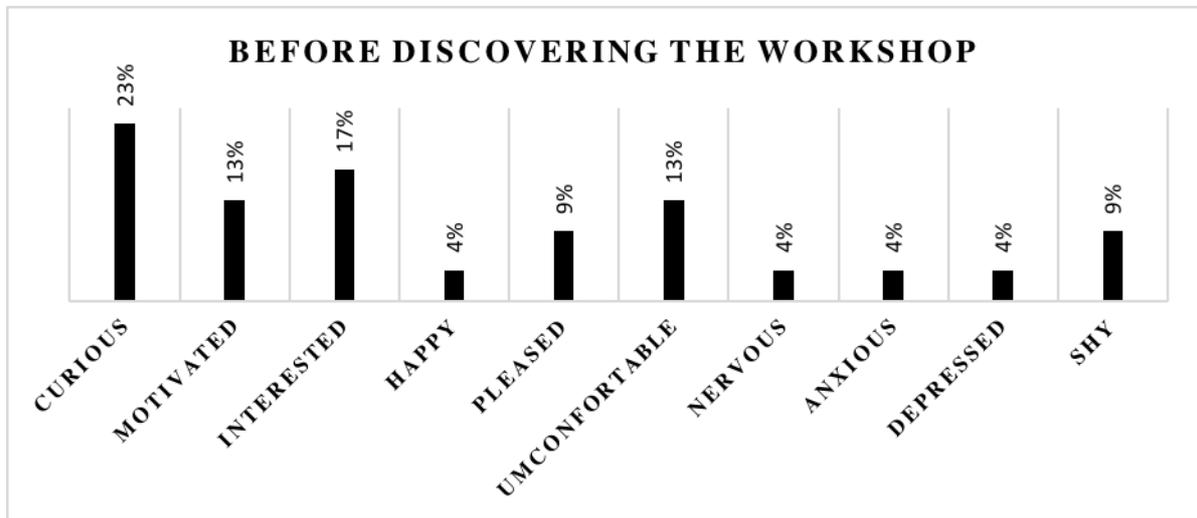
- The first two questions ("what's your feeling before / after the workshop?") relate to the people's feeling. From their spontaneous responses and a calculation of frequency of occurrence, a list of the five most frequent negative adjectives (anxious, nervous, shy, depressed, uncomfortable) and five common positive adjectives (curious, interested, motivated, happy, pleased) reflecting the patient 's state of mind has been established.
- Using three closed-ended questions (yes / no answers), the questionnaire includes then a part to evaluate the relevance of the content of the sessions ("is the choice of songs suitable?"), its material organisation ("is the material organisation of the workshop suitable?") and the number of participants ("is the number of participants enough?").
- The participant is then asked to rate his satisfaction based on expectations, on a scale from 0 to 5 (0 = unsatisfied ; 1 = a little satisfied ; 2 = moderately satisfied ; 3 = satisfied ; 4 = very satisfied ; 5 = satisfied beyond my expectations).

- Two open-ended questions complete the questionnaire to allow the patient to speak freely about the workshop inputs and possible suggestions to improve this activity ("Has the Karaoke workshop been good or not in your therapeutic support? Why?", "do you have any suggestions to improve the workshop Karaoke?").

The patient is positioned as a judge of his participation and his mood at the group activity. This study proposes a qualitative analysis.

## 6. Results

Of all participants who attended the fun activity, there is both evidence of positive and negative feelings. Motivation, interest and curiosity were the feelings most talked about by the participants prior the workshop (Figure 1). The discomfort and shyness mixed with the fear of the unknown. Despite the diversity of opinions proven, a very positive trend appears at the end of the sessions, in which two adjectives stand out: " motivated" and "happy." "Curious" and "interested" are also predominant present at the end of the program. This positive finding leads us to believe that the fun workshop continues to draw interest from candidates beyond the sessions and should be continued.



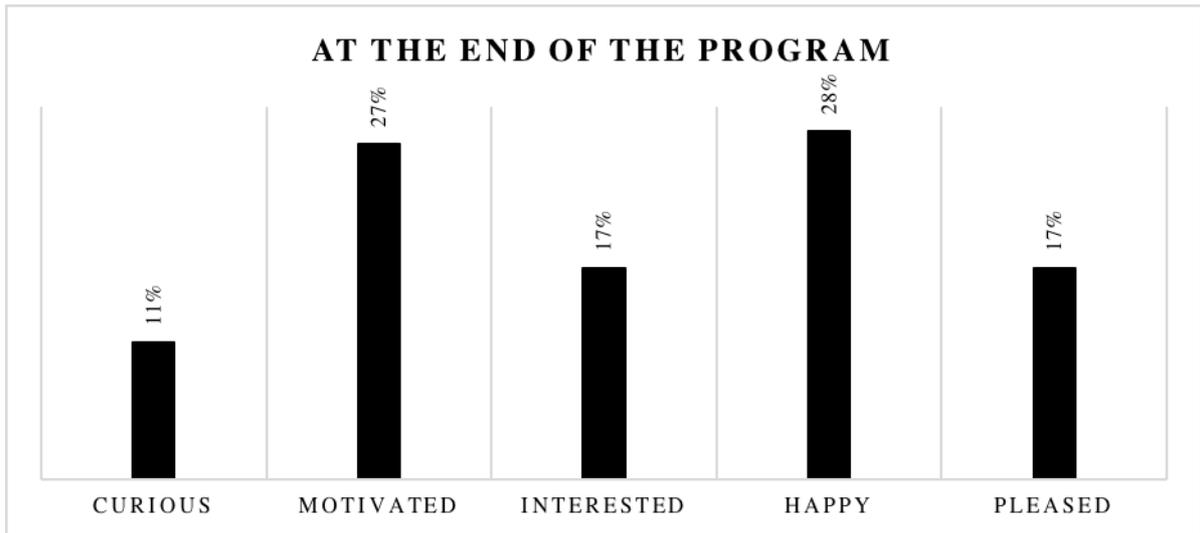


Fig.1. Changes in the general feelings, Karaoke workshop

Opinions differ on the content of sessions. The material organisation has had no comment. The choice of songs seems suitable for 6 of them despite the wish to have more vintage songs. However, the majority of candidates (4 out of 7) would like more people to sing along. The introduction of the karaoke fun workshop within this specific program has met the expectations of the majority of the candidates. All participants are satisfied by this group session (Figure 2). The answers to open-ended questions mainly showed a significant increase in self-confidence and energy thanks to Karaoke. Some patients even expressed the wish to include more participants as a suggestion for improvement. This request is very positive to problematic situations identified in the PPS ("fear of others").



Fig.2. Assessment by the participants, Karaoke workshop

## **7. Discussion**

After the establishment of the karaoke shop, we found beneficial effects for patients in different areas. We note: a significantly improved voice quality and joint capabilities due to maintaining a constant intensity while singing; a voluntary transition to an automated voice behaviour, unconsciously, motivated by the fun carrier. Beneficial effects were also felt in relational level with: the emergence of bonding between the participants with the complicity developing along the sessions; the comforting solidarity and mutual interaction between patients and caregivers. Karaoke therefore meets the needs of patients established by the PPS: the work on voice quality, the fear of what other people think and / or the fear of social isolation. The choice of medium to relax and let go, without previous set requirements; the space allowances, free space cut off from medical connotation; the role of the professionals, all seem to be the parameters determining the success of this workshop. These three parameters are essential for a successful workshop as we demonstrated to the Ludopole organisation teams. However, another element may also explain the impact of organised sessions. The methodological framework of the Parkinson program and its educational approach through the Therapeutic Education is probably a favourable structuring element. Because it contributes to the well-being and quality of life of the patient and facilitates adaptation to illness, self-acceptance and social integration, Karaoke can therefore integrate and enrich the panel of non-drug approaches sometimes called "interrelational therapy" or "occupational therapy". Recognition was initiated by HAS in April 2011 through the recommendations of non-drug interventions as complementary medicine approaches.

## **8. Conclusions**

We found that the workshop allowed to adopt a different look on others and on his own image; maintain an internal and external relationship in the fight against social isolation and withdrawal; promote a certain autonomy within the group; keep in mind the concepts of pleasure, sharing, listening and plans for the future but also to improve their well-being. We also hope that this study has demonstrated the relevance of the karaoke for speech therapists in the treatment of patients with Parkinson's disease. Karaoke is offered weekly and has an important place in a Parkinson program, it continues to welcome an increasing number of patients. Based on our clinical practice and experience in this area we hope to continue to show the benefits of recreational activities as an intervention within the MPI and we also hope to continue to contribute to the enrichment of non-drug treatment approaches proposed for this disease.

## 9. References

1. Haute Autorité de Santé, Guide du parcours de soin, Maladie de Parkinson, juin 2014, [http://www.has-sante.fr/portail/upload/docs/application/pdf/2012-04/guide\\_parcours\\_de\\_soins\\_parkinson.pdf](http://www.has-sante.fr/portail/upload/docs/application/pdf/2012-04/guide_parcours_de_soins_parkinson.pdf)
2. K Dujardin , L. Defebvre, “Neuropsychologie de la maladie de parkinson et des syndromes parkinsoniens apparentés”, 2001, Monographie de Neurologie, Masson, Paris.
3. C Fournier , M Dupessey, “Education et Rééducation Vocales : Les Bases D’une Approche Parallèle. Cas Particulier Des Comédiens et Chanteurs.”, 2001, Dysphonies et Rééducations Vocales de L’adulte, Klein-Dallant, Solal, Marseille, pp 222–45.
4. E Haneishi, “Effects of a Music Therapy Voice Protocol on Speech Intelligibility, Vocal Acoustic Measures, and Mood of Individuals with Parkinson’s Disease.”, 2001, Journal of Music Therapy 38, no. 4 : pp 273–90.
5. NS Cohen , R Masse R, “The application of singing and rhythmic instruction as a therapeutic intervention for persons with neurogenic communication disorders”, 1993, Journal of Music Therapy, 30: 81–99.
6. H Platel , “Le pouvoir thérapeutique de la musique”, dans la Tête au carré de M. Vidard, France Inter, émission du 04 mars 2014.
7. Y Moyne-Larpin, Musique Pour Renaître : Musique et Musicothérapie Pour Adolescents et Personnes âgées , 1988, Desclée De Brouwer.
9. G Ducourneau, Eléments de Musicothérapie : Clinique, Technique, Formation. 2001, 2ième ed. Thérapie. Dunod.
10. E Chauvin , MC Fevrier , A Brunet. “Association de La Méthode LSVT et D’un Atelier de Voix Chantée : Quels Bénéfices Sur La Communication Du Patient Atteint de La Maladie de Parkinson ?”2007, Toulouse.
11. D Anzieu, Le groupe et l’inconscient. 1999, 3ième ed. Psychismes. Dunod.
12. A Avena-Barthélémy , F Bernard-Colomba , C Gentil, “Apport D’une Rééducation En Voix Chantée Dans La Prise En Charge de La Dysarthrie Parkinsonienne : Etude de 4 Cas.” 2007, Lyon 1.
13. MM Hoehn , MD. Yahr, “Parkinsonism: Onset, Progression and Mortality.” 1967, Neurology 17, no. 5.
14. G Hickok , P Erhard , J Kassubek , AK Helms-Tillery , S Naeve-Velguth , JP. Strupp , PL Strick , K. Ugurbil, “A Functional Magnetic Resonance Imaging Study of the Role

- of Left Posterior Superior Temporal Gyrus in Speech Production: Implications for the Explanation of Conduction Aphasia”, June 2000, *Neuroscience Letters* 287, no. 2, 156–60.
15. S Pinto , C Ozsancak , E Tripoliti , S Thobois , P Limousin-Dowsey , P Auzou, “Treatments for dysarthria in Parkinson’s Disease.” 2004, *The Lancet, Neurology* 3, no. 9, 547–56.
  16. A El Sharkawi , L. Ramig , JA. Logemann , BR Pauloski , AW Rademaker , CH Smith , A Pawlas , S Baum , C Werner , “Swallowing and Voice Effects of Lee Silverman Voice Treatment (LSVT): A Pilot Study.”, January 2002, *Journal of Neurology, Neurosurgery, and Psychiatry* 72, no. 1, 31–36
  17. V Rolland-Monnoury, “Troubles vocaux et prosodiques dans la maladie de Parkinson”, 2009, In. P Gatignol , *La voix dans tous ses maux*, Ortho-Edition, pp 183-20
  18. *Jeu et Résilience dans la Maladie d’Alzheimer, Le Jeu comme approche thérapeutique non médicamenteuse*, Organisme Ludopole, 2012.
  19. Haute Autorité de Santé, *Développement de la prescription de thérapeutiques non médicamenteuses validées*, avril 2011.