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## VIVEC : development of a group cognitive-behavioral psychotherapy for anti-depressive purposes

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**THÈSE D'EXERCICE / UNIVERSITÉ DE RENNES 1**  
*sous le sceau de l'Université Bretagne Loire*

Thèse en vue du  
**DIPLÔME D'ÉTAT DE DOCTEUR EN MÉDECINE**

présentée par

**Géraldine Astrié**

Née le 23 avril 1989 à Tours

**Intitulé de la thèse:**

**VIVEC : Élaboration  
d'une psychothérapie  
cognitivo-  
comportementale de  
groupe à but anti-  
dépressif chez la  
personne-âgée.**

**Thèse soutenue à Rennes le 12  
décembre 2018**

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## 1. Introduction

The French population is getting older, and many doctors, including psychiatrists, are taking care of more and more elderly people. Depression and anxiety are common mental disorders at this age. (1) The Diagnostic and Statistical Manual of Mental Disorders-5 criteria are the same for depressive and anxiety disorders in older and younger patients. (2) However, this population has diagnostic and therapeutic specificities. (3)

### 1.1. Background

#### 1.1.1. Anxiety disorder, major depressive disorder

An age greater than 55 is significantly associated with a lower current prevalence of anxiety disorders compared to adults between 34 and 54 years old (OR = 0.8; 95%CI [0.7-0.9]), ie a prevalence of 6.7 percent (%) versus 7.3% for the global current prevalence of anxiety disorder. (4) (5). Seventy-five percent of these disorders begin before age 21 and 90% before age 41. (7) Chronic anxiety damages health (mainly cardiovascular), cognition and quality of life. (6) (7)

An age greater than 65 is associated with a prevalence of major depressive disorder (Diagnostic and Statistical Manual of Mental Disorders-IV) of 2.95% for the past year and 8.82% for the lifetime. Mean age at onset of major depressive disorder is 50.6 years. Comorbidities related to this disease in the past year in this population are anxiety disorders and personality disorders, including histrionic, schizoid and paranoid personality disorder. In this population of elderly, 43% report wanting to die, ¼ has thought of suicide, and 5% reported a suicide attempt. (8)

#### 1.1.2. Association between major depressive disorder and anxiety disorder

Among elderly patients with depressive symptoms or major depressive disorder, 35.2% have one or more lifetime anxiety disorders, and 23.1% have one or more current anxiety disorders. (9,10) Anxiety and depressive disorders are associated with worse outcomes than either disorder alone, including chronicity, disability, increased risk of cognitive decline and dementia, more severe depression and increased suicide rates. (11,12) Often the lifetime combination of major depressive disorder and anxiety disorder in the elderly is associated with an earlier age of onset of anxiety disorders (68%) (11). Among elderly people with lifetime major depressive disorder, nearly half (45.7% in lifetime, 51.7% in the past year) has at least one anxiety disorder. (11)

Concerning treatment, in this population, co-morbid anxiety delays and reduces treatment response for primary depression (including the antidepressant). Unfortunately, these treatments for depression are not significantly active on anxiety. (12)

Two studies indicate that patients who received first-line pharmacological treatment for primary panic disorder or generalized anxiety disorder may reduce significantly the risk of developing major depression. (13) (14)

## 1.2. Psychotherapy

### 1.2.1. Generality

Several types of therapies exist such as psychoanalytic and psychodynamic psychotherapies, cognitive and behavioral therapies, family psychotherapies, body mediated therapies, institutional psychotherapy. (15)

Cognitive behavioral therapy is the best studied psychotherapeutic intervention in the population of elderly. (16) In a Cochrane meta-analysis, which compare behavioral therapies versus other psychological therapies for acute depression (cognitive-behavioral, third wave cognitive-behavioral, psychodynamic, humanistic and integrative therapies), there is no statistical difference. In the same way, another Cochrane meta-analysis, which evaluates continuation and maintenance treatments for depression in older people, show no significant difference between psychological treatment and antidepressant in recurrence rates at 12 months, or between combination treatment (psychotherapy and antidepressant) and antidepressant alone at 12 months. (17) However, due to the small number of high studies, it limits confidence in this outcomes. (18) In British National Institute of Clinical Excellence guideline for depression, psychotherapies discussed for older people are only cognitive behavioral therapies and interpersonal therapy. (19) This guideline recommends for adults the use of psychotherapy, either on its own or with medication, in mild to moderate depression. (20) However, there is a clear lack of quality studies for elderly people on this subject, which limits the conclusions. (19) (21)

Age-related polypharmacy, pharmacodynamic and pharmacokinetic changes result in a wide range of responses to psychotropic treatments. In addition, those patients are particularly vulnerable to side effects. (16,22) which motivates to find non-drug solutions to these problems.

Psychotherapy for the elderly should include specific elements such as age-related cognitive and physical changes, beliefs, life's role (for example, becoming a widower, grandparent) and the loss of some life's roles (for example: no longer being married, no longer able to be independent). (23) As shown in a recent meta-analysis among depressive patients over 50 years old, comparing randomized studies psychotherapy (of which cognitive and behavioral therapy) versus control subjects (other therapy or pharmacotherapy), the overall effect size is  $g=0.64$  (CI95% [0.47-0.80]), which corresponds with a number to treat of 2.86. (24) More specifically, cognitive and behavioral therapy has been shown to be effective in older adults.

Thus psychotherapy seems to be a therapeutic option for the elderly with depression.

### 1.2.2. Cognitive and behavioral therapy in elderly

Cognitive and behavioral therapy has been developed in the 1970s by Beck and Ellis, explains that maladaptive cognitions cause and maintain mental disorders such as depression or anxiety. The goal is to identify and modify these cognitions (23) for decreasing painful symptoms with more evidence-based thinking (25). The behavioral aspect focuses on behavioral activation, exposure, relaxation,

social skills training (23), assertiveness and problem-solving (26). Psychotherapy is equivalent to the effectiveness of antidepressants and may be recommended as a first-line treatment in patients with mild to moderate depression. (16)

There are a number of studies which assessed the effectiveness of cognitive and behavioral therapy in elderly. For example, according to a meta-analysis, there is no statistically significant difference in the effect size of cognitive and behavioral therapy for generalized anxiety disorder between adults and elderly. (27) Cognitive and behavioral therapy for anxiety disorders would work the same way across gender, age, and socio-economic status. (28) A meta-analysis of Gould and al. shows, in a depressive population of elderly a small, yet significant ( $p=0.05$ ) improvement (effect size = -0.50) in post-treatment, at 6 months for cognitive and behavioral therapy versus non-active group or treatment as usual. (29) Results are similar in another meta-analysis (Gould and al.) for anxiety disorders in a population of elderly, with a significant ( $p<0.001$ ) effect size of -0.66 for cognitive and behavioral therapy versus inactive control (treatment as usual or waiting list). This study reports is a small significant ( $p=0.04$ ) effect size of -0.29 at 6 months in favor of cognitive and behavioral therapy versus active control. (30) These meta-analytical results suggest substantial efficiency of cognitive and behavioral therapy in elderly. However, these results were computed in individual cognitive and behavioral therapy.

More recently, groups of cognitive and behavioral therapy also showed some efficacy, for example, a group of cognitive and behavioral therapy could be significantly efficacious compared to a waitlist condition for older adults with both anxiety and depression. In a randomized controlled study, cognitive and behavioral therapy in the elderly with anxiety and depression is superior to an active control group (non-directive discussion group). At post-treatment, cognitive and behavioral therapy is significantly superior ( $p<0.001$ ) for anxiety and for depression ( $p<0.001$ ). There is a significantly ( $p=0.001$ ) higher recovery rate of primary disorder diagnosis at post-treatment, and significantly ( $p=0.028$ ) higher recovery for all disorders at post-treatment for the cognitive and behavioral therapy. The difference is no longer significant at 6 months but the recovery rate is maintained. (12) In another randomized controlled study conducted by the same authors, interaction between pre and post-treatment and groups for severity of the primary problem (anxiety or depression) was significant ( $p < 0.001$ ), suggesting higher efficacy in patients with greater symptomatology. There is a significantly ( $p < 0.005$ ) higher recovery for all disorders at post-treatment for the cognitive and behavioral therapy versus waiting list. (31)

Cognitive and behavioral group therapy appears to be an effective treatment in treatment of anxiety and depression in elderly. In the appendix, there is a list of randomized controlled group intervention programs already experienced in this population (see Appendix 1).

### **1.2.3. Acceptance and commitment therapy in elderly**

In the 1990s was developed so-called third wave psychotherapies, which focus on emotions, acceptance, and mindfulness. Acceptance and commitment therapy is a psychotherapy developed in

the late 1990s by Hayes. The principle of this therapy is based on improving psychological flexibility to improve the acceptance of immutable physical or mental events. The patient would have more energy for the actions really important to him. (32) (33) It is a transdiagnostic therapy. It would be effective on depression, anxiety and association of depression with comorbid anxiety. (28) Therapists use metaphors and experiential exercise to promote acceptance despite difficult emotions, to decrease experiential avoidance and induce behavioral activation (useful for depression) and exposure (useful for anxiety). Indeed, the goal is to engage in activities that the patient has identified as important, and to do them instead of experiential avoidance. (34) However, acceptance and commitment therapy may be complex because of abstract concepts requiring good metacognitive abilities. (33)

Elderly people may be less likely to engage in treatment aimed at reducing anxiety and depression, such as cognitive and behavioral therapy, because the ability to regulate emotions improve with age. The impossibility of achieving certain goals in this population results in experiential avoidance. Elderly who are actively seeking to eliminate problems that cannot be solved increase their risk of depression. (25) In patients older than 61 years, it is recognized that low cognitive flexibility affects the quality and effectiveness of cognitive restructuring. Anxiety and depression are associated with lower cognitive flexibility. It is possible that a psychotherapeutic intervention that improves cognitive flexibility also improves cognitive restructuring. (35)

Unfortunately, there are few scientifically good studies for the elderly person. Acceptance and commitment therapy was evaluated between older and younger subjects, in individual therapy. Like the youngest, patients over the age of 65 have a significant decrease in their depression, and increase in their quality of life. Mean depression scores declined in the older group and in the younger group. (36) According to the meta-analysis of Kishita's N. and al, third wave of Cognitive Behavioral therapy (Mindfulness-Based Cognitive Therapy, Acceptance and Commitment Therapy and Dialectical Behavior Therapy), would have positive effects on a wide range of physical and psychological disorders among elderly people. (37). According to a recent (October 2018) study of Pleger M. and al, there was no significant difference between cognitive behavioral therapy associated with interpersonal psychotherapy versus acceptance and commitment therapy. (38) In another study, comparing two psychotherapy groups focused on chronic pain, seniors respond better to acceptance and commitment therapy treatment than cognitive and behavioral therapy, with a similar attrition rate between the two techniques. (39). In a meta-analysis, acceptance and commitment therapy is significantly superior ( $p=0.030$ ) to control conditions for anxiety and depression, for addiction and for somatic complaints. (40) Acceptance and commitment therapy show, with a population of older participants, a significant improvement in worry scores ( $p = 0.05$ ) and depressive symptoms ( $p<0.05$ ) scores between pre- and post-treatment.(41).

Acceptance therapy and commitment is a recent psychotherapy, which suffers from a lack of quality study on this subject, especially in the context of group use in elderly. In the existing literature, the first results seem promising in this population. This is supported by theoretical foundations.

### 1.3. Context and aims of this study

Cognitive and behavioral therapy as well as acceptance and commitment therapy are used to treat anxiety and depressive disorders and seems to be effective in the elderly. The variety of situations encountered in group and in elderly has given us the idea to mix these two types of therapies, to best adapt to all situations. Exposure and behavioral activation therapy are consistent with each other. (34) To our knowledge, there is currently no group of acceptance and commitment therapy treating anxiety and depression in the elderly. We named this program VIVEC (*Vivre et Vieillir En Conscience*). After organizing the VIVEC program, we wanted to carry out a non-interventional prospective study to evaluate this program.

### 1.4. Objectives and outcomes

In this study, the main objective was the evaluation of depressive symptomatology at 6 months of inclusion in elderly patients with depressive disorder according to their participation or not in a psychotherapy group (combining cognitive and behavioral therapy and acceptance and commitment therapy).

Secondary objectives were the assessment of quality of life and anxiety in elderly patients with depression depending on their participation or not in the psychotherapy group. Secondary outcomes are quality of life scores on the World Health Organization Quality of Life short version scale, and anxiety scores on the Geriatric Anxiety Inventory-French Canadian scale. We also aim at describing the feasibility and qualitative feedbacks from the participants.

## 2. Methods

This was a non-interventional observational study on the collection of prospective, mono-centric data conducted in the Hospitalo-University department of Adult Psychiatry at *Centre Hospitalier Guillaume Régnier* (Rennes, France).

### 2.1. Participants

The patients were under care in *Centre Hospitalier Guillaume Régnier* in Rennes. They were offered by their attending psychiatrist or their psychologist to participate in the VIVEC psychotherapy group. Patients included had to be aged over 60, affiliated with a social security scheme, with a history of less than one year of major depressive disorder and / or dysthymia and / or unspecified depressive disorder and/or a history of less than one year of anxiety disorder (Diagnostic and Statistical Manual of Mental Disorders, 4th Edition). Patients were excluded if they had a history of schizophrenia or type 1 bipolar disorder, if they were protected adults and / or forced hospitalization, if they had at the time of study depression with psychotic features and / or high suicidal risk, a major cognitive disorder (Mini-Mental State Examination below 24 or a Montreal Cognitive Assessment below 22), if they were unable to read, if they had a somatic disease that is life-threatening or functionally severe.

## 2.2. Measures

### 2.2.1. Diagnostic clinical interview, cognitive assessment

Patients were referred to a meeting with the lead author, who was also a group leader. During this hour-long meeting, the patients had information about the group, a Mini-Mental State Examination (unless they had already received a Mini-Mental State Examination or a Montreal Cognitive Assessment less than 6 months ago) and a Mini International Neuropsychiatric Interview Version 5.0.0. – Diagnostic and Statistical Manual of Mental Disorders, 4th Edition.

If the patient wished to participate and met the inclusion and exclusion criteria, he / she completed three self-administered questionnaires, alone or with the examiner, to assess their degree of depression (Geriatric Depression Scale 30), their anxiety (Geriatric Anxiety Inventory) and their quality of life (World Health Organization Quality of Life short version).

Depending on their availability, patients were included in the 2018 or 2019 group. Patients who were interested in the group were consecutively registered to the group list. When the group was complete (maximum 10 patients), patients were registered to the waiting list, as it is currently done in the department.

### 2.2.2. Self-report measures

Geriatric Depression Scale 30 (see Appendix 2) is a 30 item self-report measure of depression symptoms specifically for elderly (42). A French version has been developed. (43). It is a diagnostic scale. It is short and easy to complete questionnaire (“Yes”/“No” questions). It is particularly useful in dementia and patients with serious somatic problem. This test was designed for the elderly. Scores range from 0 to 30. With a threshold of 11, the sensitivity is 95%. (44)

Geriatric Anxiety Inventory (see Appendix 4 (41)) is a 20 item self-report measure of anxiety symptoms specifically for elderly (45). A French-Canadian version has been developed with a high internal consistency, an adequate convergent validity and, a good test-retest reliability. (46) It is a screening tool rather than a clinical diagnostic inventory, but is able to discriminate between patients with and without any anxiety disorder and an anxiety symptom. It is short and easy to complete questionnaire (“Yes”/“No” questions). Scores range from 0 to 20 and scores of 9 and above indicate clinically significant self-reported anxiety symptoms. (47)

World Health Organization Quality of Life short version (see Appendix 5) is a 26 item self-report measure of quality of life with good test-retest reliability, content validity as well as discriminant validity and is well accepted (5% missing answers in self-assessment). A French version has been developed. It is a transcultural test, having good psychometric abilities in the elderly and French-speaking people. This test evaluates four dimensions: the physical health, psychological health, social relations, and the environment. Scores range from 4 to 20 and the higher the score, the better the state of health. A score calculation using grids is necessary (see

Appendix 9, Appendix 10). Answers are in five points, variable according to the questions, allowing evaluation of intensity ("not at all up to extremely"), ability ("not at all until completely"), frequency ("never until always") and evaluation ("very satisfied / dissatisfied, very good / bad"). (48) (49) (50) (36). There was an error in the French document used for this review. Indeed the order of the listing of items 3 and 4 was reversed. This has been corrected and taken into account in calculations.

### **2.2.3. Other information**

We also collected information on health of the individual (personal history, ongoing illnesses, ongoing treatments, and psychiatric assessments), identifying information (age and sex), data on the family situation (couple, widower or single), professional situation (retirement, unemployment, work), and lifestyle (living alone or in institution). All of this data was collected from the patient's medical record.

### **2.3. Procedure**

This study was in accordance with the reference methodology MR003 of *Commission Nationale de l'Informatique et des Libertés* (CNIL), declared on 14/02/2018. It received a favorable opinion from the Ethics Committee (n° 18.26) on 29/04/2018. A clear and appropriate newsletter regarding the research protocol was given to the patient during the recruitment phase in order to have his non-opposition. The data were collected on a paper observation notebook entered in an Excel file, anonymized, hosted on the *Centre Hospitalier Guillaume Régnier* network, in the domain reserved for the *Pôle Hospitalo-Universitaire de Psychiatrie Adulte* of the *Centre Hospitalier Guillaume Régnier* in Rennes. Only the authorized personnel of the Medical University Hospital Center of Adult Psychiatry of *Centre Hospitalier Guillaume Régnier* could have access to data. The patients included in the study were identified by a number (order of inclusion) followed by their initials (first letter of the name and the first name).

The illustrations below (Figure 1 and Figure 2) show different data acquisition times, depending on the group (VIVEC or waiting list).

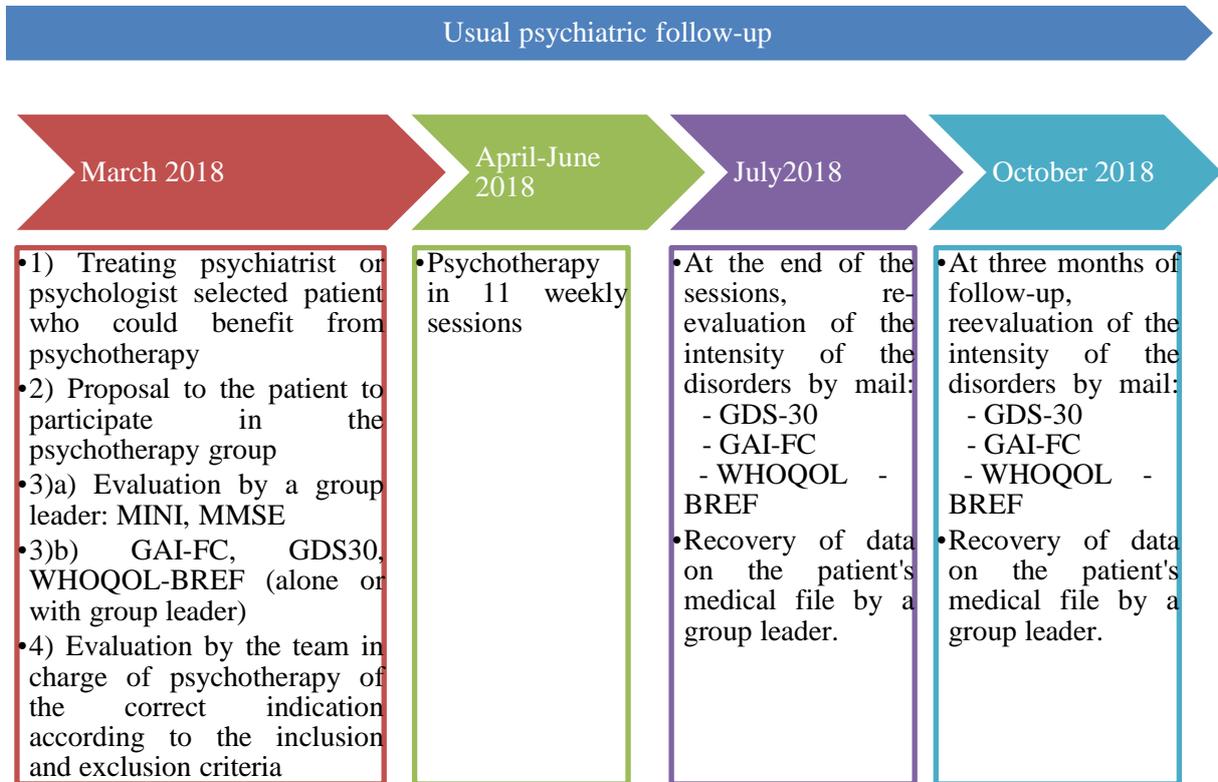


Figure 1 : Timeline VIVEC 2018

Note : MINI = Mini International Neuropsychiatric Interview Version 5.0.0. – Diagnostic and Statistical Manual of Mental Disorders, 4th Edition ; MMSE = Mini-Mental State Examination; GDS30 = Geriatric Depression Scale 30; GAI-FC = Geriatric Anxiety Inventory-French Canadian; WHOQOL-BREF = World Health Organization Quality of Life short version

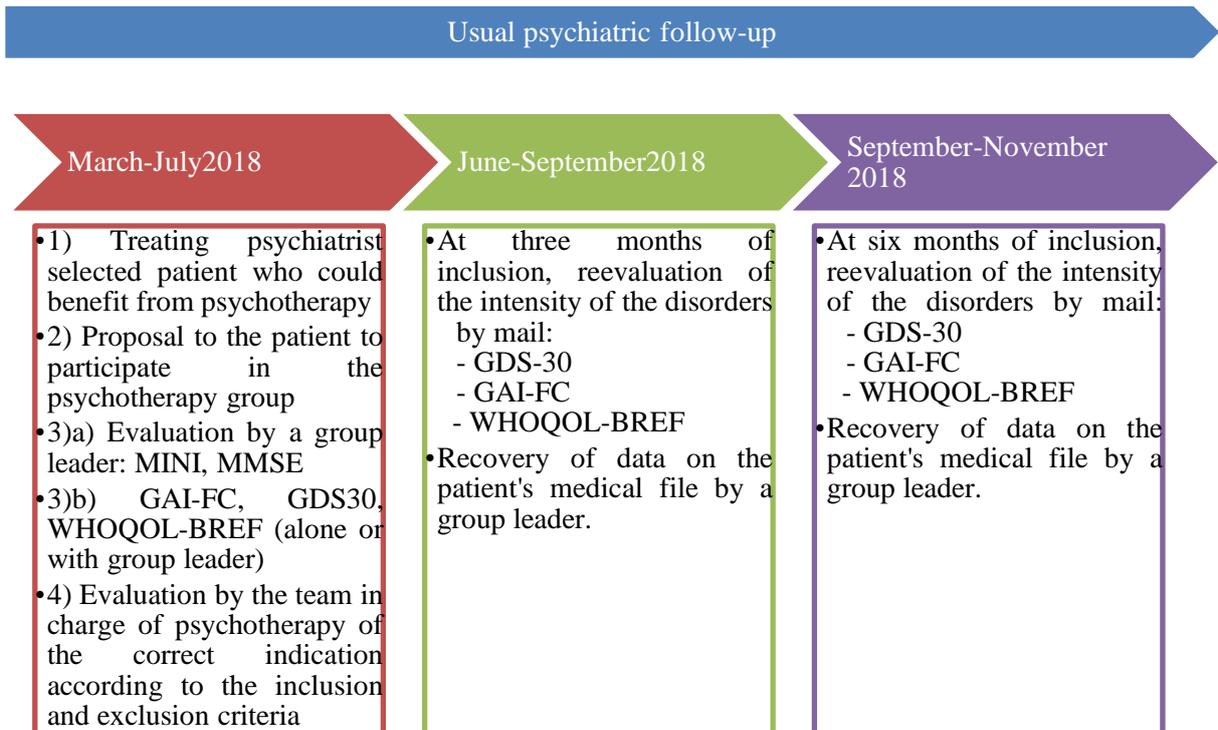


Figure 2 : Timeline waitlist

Note : MINI = Mini International Neuropsychiatric Interview Version 5.0.0. – Diagnostic and Statistical Manual of Mental Disorders, 4th Edition ; MMSE = Mini-Mental State Examination; GDS30 = Geriatric Depression Scale 30; GAI-FC = Geriatric Anxiety Inventory-French Canadian; WHOQOL-BREF = World Health Organization Quality of Life short version

## **2.4. Fundings**

This study was part of the routine care and it did not have any dedicated fundings. The group psychotherapy sessions were performed in a room dedicated to group psychotherapies.

## **2.5. Group program**

The 2018 group began on April 11, 2018 and ended on June 27, 2018. It consisted of 11 weekly of 12-week sessions (except June 20, 2018), conducted by the lead author (intern in psychiatry and cognitive behavioral therapy student) and a university psychologist trained in cognitive-behavioral therapy who has already experienced cognitive-behavioral therapy groups. Sometimes a clinical psychologist from the psychiatric hospital, leading therapy groups, and psychology students attended the sessions, with mainly an observer role. All sessions were facilitated by two therapists.

This therapy is based on the Aging Wisely program (51). It is a thorough group cognitive-behavioral therapy program, adapted to anxious and depressed elderly people, and successfully tested. (31,52). It was the closest program therapy to our population. The VIVEC 2018 group also includes notions of acceptance therapy and commitment (see Table 2). An outline of the session is available in Table 1. Main references used to carry out this therapy program are listed (see below, Table 3). The same concepts are sometimes shared between cognitive behavioral therapy and acceptance and commitment therapy.

Table 1: Outline of the session

	Theme of the session	Content	Homework
1	Introduction	Group presentation, rules (see Appendix 11), psychoeducation, basis of cognitive-behavioral therapy and acceptance and commitment therapy	Read paper version of the session, record the dates of the sessions, repeat the mindfulness exercise 2 times this week
2	Basics of cognitive behavioral therapy	Identifying and linking thoughts and emotions, mood monitoring	One mood monitoring by day, one short relaxation by day, identify my risk situations of anxiety and depression
3	Motivation to change and goal setting	Identify unhelpful behaviors, obstacles to change, find its goals, ageism	Two mood monitoring by day (one positive, one negative), complete a questionnaire to determine pleasant activities
4	Activity scheduling	Values, defusion, learn how to plan, impediment to planning, acceptance	Make a schedule of the week with an activity every two days, two mood monitoring by day (one positive, one negative)
5	Challenge his thoughts -1	Identify and fight against unhelpful thoughts and cognitive bias with defusion and cognitive restructuring	Make a schedule of the week with an activity every two days, two mood monitoring by day (one positive, one negative)
6	Challenge his thoughts - 2	Difficult situations, problem - solving, loneliness	Mood and through monitoring, do at least one defusion or cognitive restructuring exercise, make a schedule of the week, solve a problem
7	Skills review	Mood and thoughts monitoring, scheduling, problem-solving, cognitive restructuring, find its goals, assessment of difficulties, sleep	Mood and through monitoring, do at least one defusion or cognitive restructuring exercise, make a schedule of the week, solve a problem, if needed sleep diary
8	To face my fears : do with avoidance	Avoidance, acceptance, graduated exposure, dementia	Plan a graduated exposure and if possible try it
9	To face my fears : do with loss and mortality	Stages of grief, difficulty during bereavement	Continued exposure, make a schedule of the week
10	To face my fears : fear to express its need	Assertiveness, means of communication, basis of pharmacology in mental health	Use of the tools learned, relapse questionnaire
11	Free session: no meeting; use of the tools learned according to the difficulties. Contact with the main author left in case of questions or problems		
12	Preparation for the end of the program: goal review, relapse prevention	Back on difficulties, goal evaluation and new goals	Use of the tools learned

Table 2: Concepts and tools studied during the VIVEC 2018 program.

Therapy	Psychotherapy concept	Psychotherapy tool
ACT	Flexibility : see defusion, acceptance, present moment, values, committed action	Present moment : mindfulness
ACT	Acceptance	Metaphors (dashboard, crazy scientist, quicksand) Mindfulness (leaves on the river)
ACT	Defusion	Changes in self-verbalizations Metaphor (radio catastrophe) Exercise : repeating a word
CBT	Connection between emotions, thoughts, and behaviors	Self-observation Simple functional analysis
CBT	Cognitive restructuring	Socratic questioning Replacing thoughts Cognitive biases Changes in self-verbalizations
CBT	Psychoeducation	Multiple choice questionnaire Sleep diary Relapse prevention
CBT	Exposure	Imaginal exposure Ranking Roleplay Exposure in vivo
CBT	Assertiveness	Social skills training DESC
CBT; ACT	Identification of automatic thoughts	Mindfulness Exposition Emotion record worksheet Exercise : "Do not think" Socratic questioning (list) Dysfunctional thought record worksheet Simple functional analysis
CBT; ACT	Identification of emotions	Self-observation Mood monitoring Mindfulness
CBT; ACT	Activation	Planning Problem-solving Simple functional analysis List of pleasant activity Goals (SMART, dead man technic, magic wand) Values (list, identification, birthday party, metaphor of compass, exercise: to free oneself from the opinion of others)
CBT; ACT	Avoidance	Metaphors (kidnapping, vicious dog) Simple functional analysis Hierarchy of exposure

Note: CBT = Cognitive Behavioral Therapy, ACT = Acceptance and Commitment Therapy

Table 3: List of main references used to carry out the VIVEC 2018 group program

<b>Title</b>	<b>Type (therapy)</b>	<b>Type (public)</b>
<b>Ageing Wisely program (51)</b>	Cognitive-behavioral therapy	Patients manual
<b>Handbook of Behavioral and Cognitive Therapies with Older Adults (53)</b>	Cognitive-behavioral therapy	Book for therapist
<b>Guide de pratique pour le diagnostic et le traitement cognitivo-comportemental du trouble dépressif majeur (26)</b>	Cognitive-behavioral therapy	Therapist manual
<b>Acceptance &amp; Commitment Group Therapy (ACT-G) for severe health anxiety (54)</b>	Acceptance and Commitment Therapy	Therapist manual
<b>Passez à l'ACT (55)</b>	Acceptance and Commitment Therapy	Book for therapist
<b>La Thérapie d'acceptation et d'engagement (56)</b>	Acceptance and Commitment Therapy	Book for therapist
<b>Les dimensions du deuil (57)</b>	-	Public conference
<b>Psychothérapies du sujet âgé (58)</b>	Various therapy	Book for therapist

The VIVEC program includes typical elements of cognitive-behavioral therapy: identification of thoughts and emotions, emotion-behavior-thought link, cognitive restructuring, planning, graded exposure, problem-solving, assertiveness, psychoeducation, relaxation. In addition, we note elements of therapy of acceptance and commitment: defusion, acceptance, use of metaphors, identification of values, implementation of committed actions, mindfulness. Some themes were chosen because of their interest in the depressed or anxious person: sleep disorder, practical bases of psychiatric pharmacology. Some themes were chosen because of their prevalence in this population: bereavement and loss, dementia, loneliness. Adaptations were necessary for the patients: use of a maximum of concrete case, by privileging those brought by the patients, repetition of the notions discovered, use of role plays, use of large fonts, use of thick paper, and precise elements of pagination.

The sessions were stereotyped (except sessions 1, 10, 11 and 12). It began with a return to the important notions of the previous session and impressions on homework. The session included phases of theory and exercises (alone or with the group). A video projector allowed the use of slides and various video or audio media. A break was scheduled in the middle of the session.

In the end, the essential notions were summarized. The paper version of the session was distributed, with the homework to be done. Sometimes practical cards were distributed. The last part involved alternately a short exercise of mindfulness or relaxation (maximum ten minutes).

### 2.6. Data analysis

Primary and secondary outcomes were analyzed using mixed models to account for the nested covariance of the data. We tested for an interaction of time and group over the primary and the secondary outcomes. Analyses were performed using LmerTest in R (<https://cran.r-project.org/web/packages/lmerTest/>)

### 3. Results

19 patients aged between 64 and 87 years (mean age 73.85 years, 5=male, 14=female) were recruited via their attending psychiatrist (N=18) or psychologist (N=1).

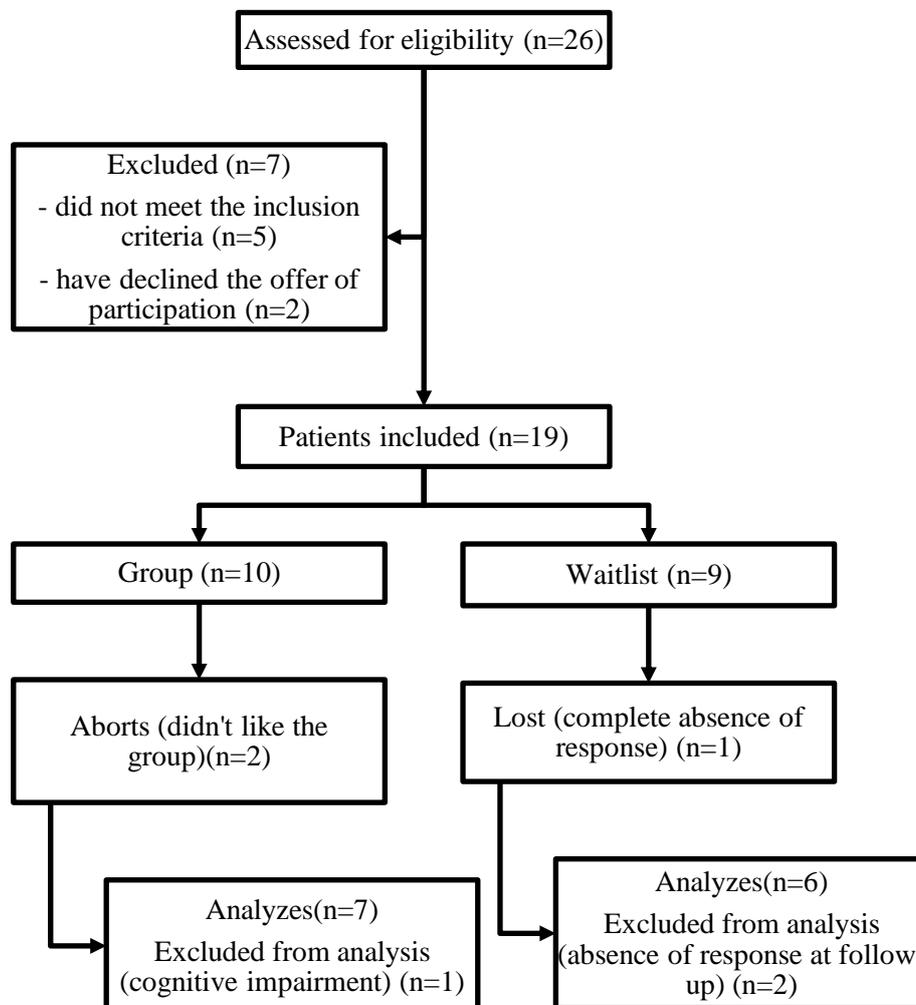


Figure 3 : Flow-chart VIVEC 2018

A total of ten people were selected in the 2018 group and nine in the 2019 group. Five people were screened out (1 for bipolar disorder type 1, 1 for psychotic elements, 3 for Mini-Mental State

Examination less than 24).

The VIVEC 2018 group initially included 1 man and 9 women. Three people were excluded during the therapy. The first for unsuitable behavior in the group, the second for stopping and the third for cognitive impairment (nevertheless this patient continued the sessions). The group studied finally comprises 1 man and 6 women. One patient did not answer to the third questionnaire. The waiting list group initially included 4 men and 5 women. One woman was excluded during the waiting before 2019 group, for not answering any questionnaire. Two patients did not respond to follow-up questionnaires (see Figure 3 for the flow chart).

### 3.1. Demographic data

Table 4: Demographic data across per-protocol conditions

		VIVEC 2018 (N=7)	Waitlist (N=6)
	Sex , % female	85.71	66.67
	Age, average	74.4	74.67
	MMSE, average	27.67	27.75
<b>Marital status, %</b>	Single	14.29	33.33
	Partnered or married	57.14	66.67
	Widowed	28.57	0
<b>Lifestyle, %</b>	Non-institutional, couple	71.43	83.33
	Non-institutional, single	14.29	16.67
	Institutional	14.29	0
<b>Profession, %</b>	Retired	100	100
<b>Diagnoses, % (according MINI)</b>	Major depressive disorder, current	86	17
	Major depressive disorder, past	86	67
	Generalized anxiety disorder, current	71	50
	Panic disorder, current	71	50
	Agoraphobia, current	14	0
	Anxiety disorder, current	71	50
	Dysthymia, current	14	33
	Major depressive disorder + Anxiety disorder, current	71	0
<b>History of mood disorder, % (according to medical record)</b>	Major depressive disorder	71,43	83.33
	Bipolar disorder type 2	28,57	16.67
<b>Antecedent, %</b>	Suicide attempt	0	66.67
	Electroconvulsive therapy	14,29	16.67
	Transcranial magnetic stimulation	0	0
	Antecedent that may have a direct impact on mood	85.71	83.33
<b>Comorbidity, %</b>	Active smoking	14.29	0
	Addiction to substances (alcohol, drugs)	0	0
<b>Treatment</b>	Taking psychotropic medications, %	85,71	100
	Average amount of benzodiazepine (equivalent diazepam), in milligrams	8,28	5.08
<b>Survey, average</b>	GDS30	18.57	11.17
	GAI-FC	15.57	10.83
	WHOQOL-BREF	49.57	56.17

Note : MINI = Mini International Neuropsychiatric Interview Version 5.0.0. – Diagnostic and Statistical Manual of Mental Disorders, 4th Edition ; GDS30 = Geriatric Depression Scale 30; GAI-FC = Geriatric Anxiety Inventory-French Canadian; WHOQOL-BREF = World Health Organization Quality of Life short version

The mean age in per-protocol analyze for the two groups was 74,52 years.

These groups were very different (see Table 4). The VIVEC 2018 group had higher average rates of depression and anxiety and a lower quality of life. There was a greater proportion of major depressive episode and anxiety disorder in the VIVEC 2018 group and it was the only group where both disorders (major depressive disorder and anxiety disorder) currently exist.

In the VIVEC group, at inclusion, the mean depression score was 18.6, for a median of 20 and a standard deviation of 7.9, whereas in the waiting list group the mean depression score was 11.2, for a median of 11 and a standard deviation of 6.1.

At inclusion, the mean anxiety score for the VIVEC group was 15.6, for a median of 16 and a standard deviation of 4.2, while in the waiting list group the mean anxiety was 10.8, for a median of 11.5 and a standard deviation of 4.7.

In the VIVEC group, the mean quality of life score, at inclusion, was 49.6, for a median of 51 and a standard deviation of 12.2, whereas in the waiting group the mean quality of life was 56.2, for a median of 56.5 and a standard deviation of 5.5.

There are other dispersal and position parameters of this population in Table 5.

**Table 5 : Dispersal and position parameters of the population by groups**

	VIVEC group (n=7)			Waiting list (n=6)		
	GDS30	GAI	WHOQOLbref	GDS30	GAI	WHOQOLbref
Minimum	3	7	33	4	4	49
First quartile	16,5	15	41,5	6,5	7,8	52,5
Median	20	16	51	11	11,5	56,5
Mean	18,6	15,6	49,6	11,2	10,8	56,2
Third quartile	23,5	18	57	14,8	14,5	59
Maximum	27	20	66	20	16	64
Standard deviation	7,9	4,2	12,2	6,1	4,7	5,5

**Note : GDS30 = Geriatric Depression Scale 30; GAI-FC = Geriatric Anxiety Inventory-French Canadian; WHOQOL-BREF = World Health Organization Quality of Life short version**

### **3.2. Main objective: evaluation of depressive symptomatology**

There is an improvement in average depression scores in both groups, as shown in Table 6. The decrease in the depression score was 16% in the VIVEC group between the baseline and the end of the group (3 months after inclusion), and 42% between baseline and end of follow-up (6 months after inclusion). The decrease in the depression score was 28% in the waiting list group between the baseline and 3 months after inclusion, and 12 % between baseline and 6 months after inclusion.

Table 6 : Evolution of depression mean scores according to time for the VIVEC 2018 group and the waiting list group.

	Score at GDS 30		
	Group VIVEC	Waiting list	
Time	M0	18,5714286	11,1666667
	M3	15,5714286	8
	M6	10,8333333	9,8333333

Note : GDS30 = Geriatric Depression Scale 30; M0 = Pre-psychotherapy (VIVEC) or first meeting with the patient (waiting list); M3 = post-psychotherapy (VIVEC) or 3-month questionnaire of inclusion; M6 = Follow-up to three months of psychotherapy (VIVEC) or questionnaire at 6 months of inclusion

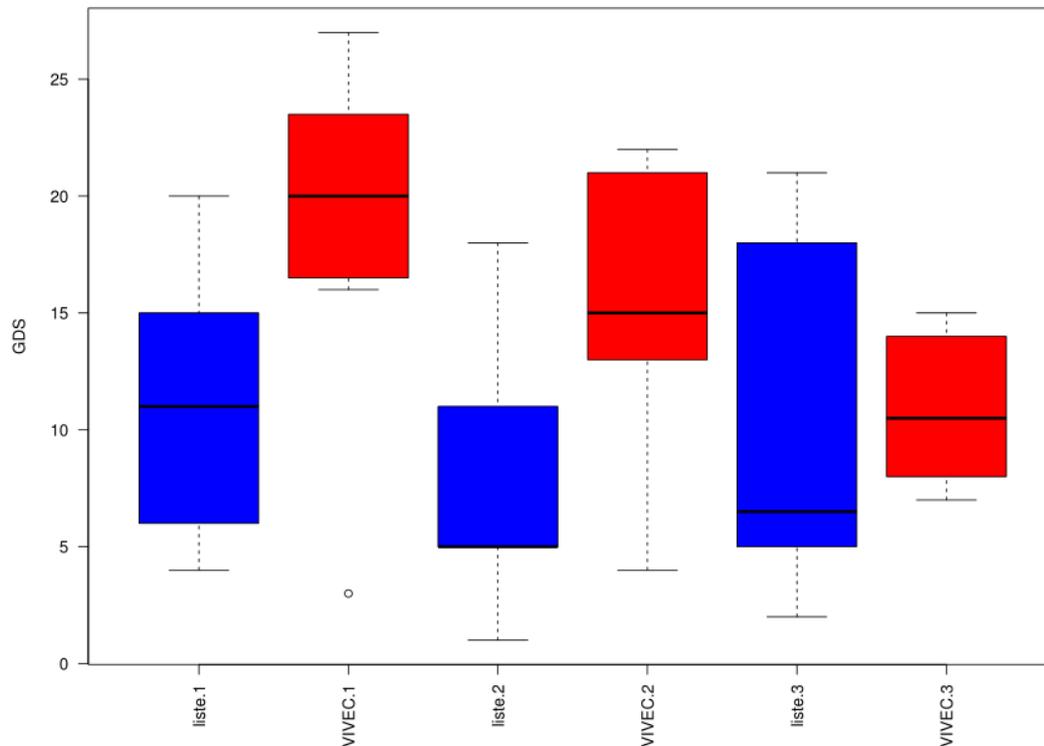


Figure 4 : Evolution of depression according to time for the VIVEC 2018 group and the waiting list group.

Note : GDS = Geriatric Depression Scale 30; liste.1 = waiting list group at inclusion; VIVEC.1 = VIVEC group at inclusion; liste.2 = waiting list group at 3 months of inclusion; VIVEC.2 = VIVEC group at 3 months of inclusion; liste.3 = waiting list at 6 months of inclusion; VIVEC.3 = VIVEC group at 6 months of inclusion

There is no significant difference for depression between groups x time with ANOVA, ie F.value = 2.0219 and p=0.15848.

There is no significant difference for VIVEC group x time versus waiting list with linear mixed model fit by REML, ie at 3 months of inclusion t value = -0.365, p=0.7191176 and at 6 months t value = -1.917, p=0.069571(see Appendix 12).

### 3.3. Secondary objectives: assessment of anxiety and quality of life

There is an improvement in average anxiety scores in both groups, as shown in Table 7. The decrease in the anxiety score was 23% in the VIVEC group (loss of 3,57 points) between the baseline and the end of the group (3 months after inclusion), and 31% (loss of 4.90 points) between baseline and end of follow-up (6 months after inclusion). The decrease in the anxiety score was 32% (loss of 3.43 points)

in the waiting list group between the baseline and 3 months after inclusion, and 34 % (loss of 3.67 points) between baseline and 6 months after inclusion.

**Table 7 : Evolution of anxiety mean scores according to time for the VIVEC 2018 group and the waiting list group**

		GAI-FC	
		Group VIVEC 2018	Waiting list
Time	M0	15,57142857	10,83333333
	M3	12	7,4
	M6	10,66666667	7,16666667

**Note :** GAI-FC = Geriatric Anxiety Inventory-French Canadian; M0 = Pre-psychotherapy (VIVEC) or first meeting with the patient (waiting list); M3 = post-psychotherapy (VIVEC) or 3-month questionnaire of inclusion; M6 = Follow-up to three months of psychotherapy (VIVEC) or questionnaire at 6 months of inclusion

There is no significant difference for depression between groups x time with ANOVA, ie F.value = 0.1652 and p= 0.848867.

There is no significant difference for VIVEC group x time versus waiting list with linear mixed model fit by REML, ie at 3 months of inclusion t value = -0.377, p= 0.7104 and at 6 months t value = -0.560, p= 0.5815 (see Appendix 12).

There is an improvement in average quality of life scores in both groups, as shown in Table 8. The increase in the quality of life score was 5% (gain of 2.29 points) in the VIVEC group between the baseline and the end of the group (3 months after inclusion), and 10% (gain of 5.50 points) between baseline and end of follow-up (6 months after inclusion). The decrease in the anxiety score was 9% (gain of 4.83 points) in the waiting list group between the baseline and 3 months after inclusion, and 7 % (gain of 4.00 points) between baseline and 6 months after inclusion.

**Table 8 : Evolution of quality of life mean scores according to time for the VIVEC 2018 group and the waiting list group**

		WHOQOL-BREF	
		Group VIVEC 2018	Waiting list
Time	M0	49,57142857	56,16666667
	M3	51,85714286	61
	M6	54,66666667	60,16666667

**Note :** WHOQOL-BREF = World Health Organization Quality of Life short version; M0 = Pre-psychotherapy (VIVEC) or first meeting with the patient (waiting list); M3 = post-psychotherapy (VIVEC) or 3-month questionnaire of inclusion; M6 = Follow-up to three months of psychotherapy (VIVEC) or questionnaire at 6 months of inclusion

There is no significant difference for depression between groups x time with ANOVA, ie F.value = 0.04754 and p= 0.9537.

There is no significant difference for VIVEC group x time versus waiting list with linear mixed model fit by REML, ie at 3 months of inclusion t value = -0.298, p= 0.769 and at 6 months t value = -0.070, p= 0.945 (see Appendix 12).

### 3.4. Other data

Table 9 : Lifestyle, treatment, and antecedents changes

	Follow up to 3 months of inclusion		Follow up to 6 months of inclusion	
	VIVEC group	Waiting list	VIVEC group	Waiting list
<b>Social changes, %</b>	0	0	0	0
<b>History of the disease changes, %</b>	0	0	0	0
<b>Introduction of a new psychoactive treatment, %</b>	43	0	0	33
<b>Occurrence of a new significant antecedent, %</b>	14	33	14	33
<b>Average amount of benzodiazepine, in milligrams (equivalent diazepam)</b>	8.85	3.17	5.25	1.88

Note : Average amount of benzodiazepine, in milligrams, at inclusion, was 8.28 for the VIVEC group and 5.08 for the waiting list

There have been no social changes, ie no change in place of living or marital status, for the two groups during the follow-up. There has been no history of the diseases changes, ie no suicide attempt, no electroconvulsive therapy, no transcranial magnetic stimulation, no drug use, for the two groups during the follow-up.

43% of VIVEC patients received new drug classes at end of psychotherapy and none at 6 months of inclusion. None of the waiting list received new drug classes at 3 months of inclusion and 33% at 6 months. When we observed depression, anxiety, and quality of life scores in patients in the VIVEC group as a function of the change or absence of treatment during psychotherapy, we observed a clear improvement in the scores in the group that has been treated, and there is still a decrease in depression scores in both groups (see Figure 5). There was no improvement in anxiety and quality of life scores in untreated patients (see Figure 6).

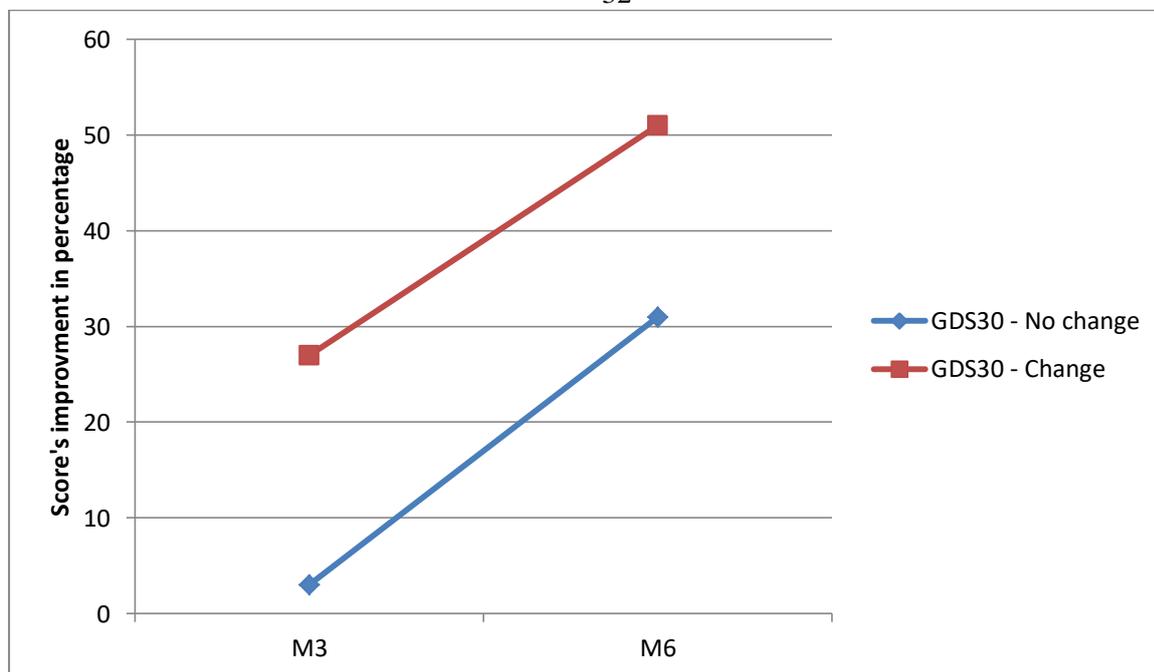


Figure 5 : Percentage improvement in scores of depression by treatment changes over time

Note : GDS30 = Geriatric Depression Scale 30; Change : change in psychotropic medications after inclusion; No change : no change in psychotropic medications after inclusion

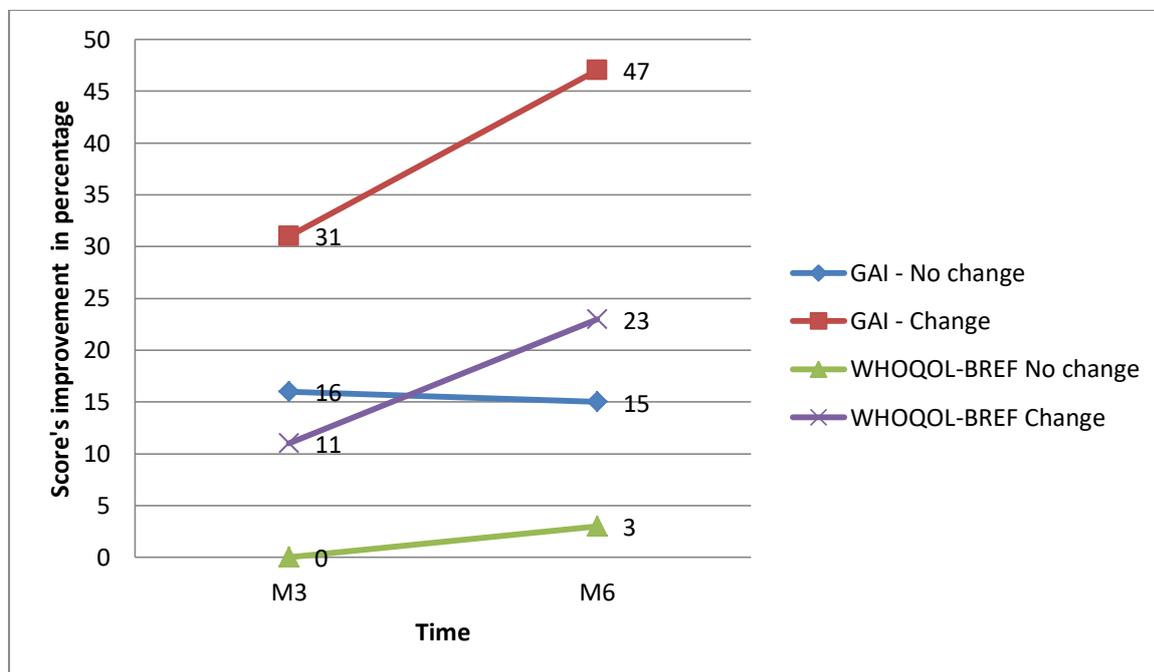


Figure 6 : Percentage improvement in scores of anxiety and quality of life by treatment changes over time.

Note : GAI-FC = Geriatric Anxiety Inventory-French Canadian; WHOQOL-BREF = World Health Organization Quality of Life short version; Change : change in psychiatric background treatment after inclusion; No change : no change in psychiatric background treatment after inclusion

The decrease in the average benzodiazepine level per individual decreased more rapidly in the waiting list group than in the VIVEC group (see Table 9). There was a slight increase in the average rate for

the VIVEC group at the end of the psychotherapy versus at the beginning (increase of a sedative treatment and introduction of a mild anxiolytic).

## 4. Discussion

### 4.1. Analyze of results

This study describes the evolution of depressive symptomatology, anxiety, and quality of life, in a group of patients benefiting from psychotherapy versus a waiting list, at pre-treatment, post-treatment and 3 months follow-up. The participants from the VIVEC 2018 group have higher depression and anxiety severity score and a poorer quality of life. This is consistent with the higher rate of major depressive disorder and anxiety disorder show by Mini International Neuropsychiatric Interview. The rate of attrition in the group VIVEC 2018 was rather high (30%). One patient stopped after the first session because it was clear that she needed an individual approach. Another one did not find interest in the group. One person presented an exclusion criterion (cognitive impairment).

Although the sample size was small and our study did not have sufficient power, we observed a greater effect size on the depression severity than on anxiety and quality of life. Feasibility was adequate and feedbacks from the participants were quite positive. Moreover, there is a greater decrease, in percentage, of depression scores in the VIVEC group compared to the waiting list group. The VIVEC group shows an improvement in depression scores, whether there is a change in psychotropic medications during follow-up or not. This suggests that this group of psychotherapy is mostly effective on depression. However, anxiety and quality of life do not seem to be affected by VIVEC psychotherapy.

There is no significant difference in the statistical tests (analysis of variance and linear mixed model fit by REML). This is not surprising given the small size. Moreover, the groups are not comparable, so a difference would be difficult to interpret. Nevertheless, there is a tendency to significance regarding depression in the VIVEC group x time analysis at 6 months (t value = -1.917, p=0.069571).

### 4.2. Strength of this study

We wanted to analyze as closely as possible to the study population. Indeed, although the primary endpoint is the assessment of depression, we decided to include a questionnaire about anxiety, because it is a frequent disorder in elderly. In addition to measure of anxious or depressive symptoms, quality of life is an important indicator of treatment effectiveness (34), so we chose to incorporate a quality of life scale. Moreover, anxiety and depression questionnaire are specific to elderly. Finally, evaluations were made over a quite long period (6 months). It is more representative of the desired effect of psychotherapy, ie a long-term effect.

The patients continued their regular medical and paramedical follow-up, and two were hospitalized in psychiatry during sessions. This is more ethical and closer to real care, and integrating psychotherapy with psychotropic treatment could be a gain. Indeed, a study evaluated the efficacy of antidepressant

therapy (Desipramine) versus cognitive-behavioral therapy versus a combination of these two therapies, with people over 60 years of age, with mild to moderate depression. There is a significant time effect between onset and end of treatment with respect to depression with a significant difference between cognitive-behavioral therapy and Desipramine ( $p = 0.04$ ) and between treatment combined and Desipramine alone ( $p = 0.007$ ). The combined group showed greater improvement than the cognitive-behavioral therapy group. (59) Thus this study explores several aspects of the life of the subjects, and the proposed psychotherapeutic treatment is compatible, even beneficial, with the usual follow-up.

This study is precursor because it combines two types of cognitive-behavioral therapies: behavior and cognitive therapy and acceptance and commitment therapy. Most studies compare the effectiveness of these two treatments, instead of associating them. Moreover, it is the first time that a cognitive-behavioral therapy psychotherapy group is used for this specific depressive and / or anxious elderly patient population at the *Centre Hospitalier Guillaume Régnier*.

### 4.3. Observations

#### 4.3.1. Patients opinion

Opinions were collected on questionnaires returned by patients (optional) and rarely after phone calls (see Appendix 13).

Many patients deplore the binary nature of the surveys and find that it is difficult to give an answer which represents their average mental state in recent weeks. Moreover, as one patient pointed out, some questions were redundant. Even if these questionnaires are self-questionnaire, including 2 specifically designed for elderly, it seems easier to complete them with the help of another person.

Regarding the group, no one reported getting in touch with others, but care about their health. The opinions are very positive towards the group leaders. The general opinion is favorable.

The example of patient A2 is interesting because we can notice an evolution in the inner speech. The speech is initially self-centered, with an intrusion of the gaze of the other. At the end of the therapy, the theme of acceptance is in the foreground, and mainly self-acceptance. This is a complete change of perspective compared to the beginning. The patient chose to expose herself to others. 3 months after the end of the therapy, the patient was able to sign up for an activity that helps her take a step back from her thoughts and expose herself to others.

Patient A4 continue to use activity planning.

Patient A7 realized during the group a graduated exposure to the driving, which allows her to drive again. At 3 months, anxiety reappears a little, which can be the beginning of a relapse. Patient A10 was very active during the therapy. Unfortunately at 3 months from the end of the therapy the patient has health problems. It lowers her mood.

Some patients ask to do a reminder session. This would be useful because it would allow patients to better integrate the concepts used and to verify their application. In many studies, we see that over time the benefits of psychotherapy fade. In Wuthrich's study (group of cognitive behavioral therapy for elderly with depression and anxiety disorders) there is no significant difference at 6 months between the discussion group and the cognitive-behavioral therapy group. (12). In Gould meta-analysis (cognitive behavioral therapies for elderly with depression or anxiety disorders) there is no significant difference at 9 and 12 months between control (active or not) and the cognitive-behavioral therapy group. (29) (30)

#### **4.3.2. Therapists' opinion**

From the point of view of the group leaders, the participation during sessions of the patients was considered very good, with a clear progression for two patients. The agreement in the group was good. Participants expressed kindness to each other. Patients had a good ability to analyze situations when they were guided. Our surprise at the abilities of the patients is a marker of the prejudices of the therapists over old age.

#### **4.4. General observation**

##### **4.4.1. Particularity of psychic disorders of elderly**

Few patients have been proposed by their therapist for this psychotherapy. There are several reasons why seniors do not receive treatment. Older adults would have less knowledge about mental health support services, a lack of awareness of the need for help, and fear the stigma associated with mental disorders. In addition, patients as caregivers would attribute anxio-depressive symptoms to age, which limits the use of mental care. (25) For a long time, it was believed that the elderly were not able to benefit from psychotherapies. This prejudice may still be active.

##### **4.4.2. VIVEC 2018 program**

Patient with Mini-Mental State fewer than 25 did not finish the psychotherapy (early interruptions, exclusion criteria). The proposed therapy may require too much cognitive ability. We have developed classic axes of cognitive-behavioral therapy (functional analysis, cognitive restructuring, exposure, psychoeducation) and acceptance and commitment therapy knowledges (defusion, search for values, committed actions). We focused the group on themes more specific to this age: loss (bereavement, health, sleep), beliefs related to the group (negative stereotypes about age, mental health).

Krishna's meta-analysis, which studied cognitive-behavioral therapy groups for sub-clinical depression, shows a significant improvement in depressive symptoms compared to the control group, in post-treatment. (60) In Thompson study, combined treatment (desipramine plus cognitive and behavioral therapy) is significantly superior to desipramine alone, in the high-severity group (Hamilton Rating Scale for Depression >18), but not statistically significant for low-severity group. (59). Cognitive behavioral therapy seems to be active on sub-clinical and severe depressive disorders. A study compared the results of cognitive-behavioral therapy and acceptance and commitment therapy

in patients with different anxiety levels. Low and high anxiety sensitivity at baseline is associated with the least favorable outcomes in cognitive and behavioral therapy, whereas moderately elevated levels are associated with greatest improvement. Acceptance and commitment therapy is not impacted by baseline anxiety severity. Acceptance and commitment therapy has a significant advantage over cognitive and behavior therapy for those with baseline comorbid mood disorders across multiple time points. (28) In the context of a heterogeneous group, cognitive and behavioral therapy and acceptance and commitment therapy may be complementary.

We also chose to integrate problem-solving technics, which is a useful tool in cognitive-behavioral therapy. It consisted in carrying out a functional analysis to discover negative reinforcements and cognitive biases, then to propose a problem-solving to generate possibilities of new behaviors, more effective, and thus reinforced positively. Some have individualized whole therapies on the concept of problem-solving. These therapies developed at the same time as cognitive-behavioral therapy. It focused on problem-solving difficulties related to inappropriate cognition or lack of activity and the resultant is poor coping, low self-efficacy, and negative emotions. This technique has better results in the older adult than the younger adult. It may be related to executive dysfunction, more common in the elderly. (23) About that, mixing older and younger people helps to reduce the effects of age-related stereotypes. (61). This suits our choice of associating people over 60 with no upper age limit. Nevertheless, it seems interesting to keep a minimum age threshold, to be able to work on age-specific topics. With age, the processing speed, working memory and attention decrease. (25) We considered memory difficulties by regularly repeating the notions learned, by making a reminder at the beginning of each session, by performing a revision session, by giving a summary of the session for the patient, by greater use of practice. We considered sensory difficulties by increasing the font, by arranging precise pagination, using thick and colored paper, trying to limit the hubbub. We considered mobility difficulties by offering free transport for people who cannot come on their own.

There were specific interests in group therapy. Group psychotherapy is an effective and significant intervention in older adults with depression in comparison to waiting list controls (20) Group also increases health care facilities because the number of trained psychotherapists is limited. The cost of group psychotherapy would be half that of individual therapies. (60) It allowed decentralization towards its problems, by confronting the problems of others. It could also recreate a relation of people suffering from loneliness. For patients with problems of social phobia, group allowed exposure. We have seen, in this group, a phenomenon of peer valuation and peer feedback. The patients said that they liked to meet people (therapists and especially the peers) who could understand their pathology and that it allows a destigmatization.

#### **4.5. Areas for improvement and prospect**

After this first experience, it seems useful to continue in this direction. Here are some suggestions for improving this research and psychotherapy.

### 4.5.1. Group

#### 4.5.1.1. Target population

Elderly people treated at the *Centre Hospitalier Guillaume Régnier* are often afflicted with major disorders, and form a subpopulation in elderly patients suffering from depression or anxiety. The question is: Should we continue to recruit patients into this subgroup or open inclusions to patients in the community (for example patients referred by family physicians or recruited via advertisements)? Currently, it is easier to recruit and obtain information with a group of patients followed in hospital. Moreover, this psychotherapy is still being tested, and the dense network of a psychiatric hospital (nurses, emergency services, psychological health centers, continuous presence of doctors specialized in the hospital) is reassuring for its patients whose suicidal risk is high.

#### 4.5.1.2. Questionnaires

Many patients do not like answering questionnaires. Some self-questionnaires have suffered from a lack of motivation or problems of understanding instructions despite oral and written explanations. Questionnaires done with a caregiver could improve the quality of the answers. This caregiver can be a doctor but also a paramedic. Several meta-analytic studies have found that self-report instruments give more conservative outcome in depression outcome research. (24) Ideally, these questionnaires should be integrated with routine care as a monitoring tool. This would increase the control population and randomize the groups. These questionnaires would be useful for individual follow-up but also to serve as a database, with the agreement of patients. Moreover, it would free up time to carry out with patients more specific questionnaires with psychotherapists.

#### 4.5.1.3. Sessions

The sessions are quite long (two hours). The patients of the VIVEC 2018 group did not complain directly but some of them complain to their psychiatrist. We can imagine that shorter sessions would allow for better memorization (more repetitions, fewer concepts at once) and more progressive homework. However, this requires patients to come more often, if the same volume of sessions is kept. It is the spirit of a managed care program created in the United States, IMPACT. Part of the care is based on problem-solving psychotherapy. Sessions are short (less than 45 minutes) but there are fewer notions studied than VIVEC group. (62) The duration of session depends on the purpose and goals of the group. In the program on which the VIVEC program was based, Ageing Wisely, the sessions lasted two hours. (51). It seems difficult to explore so many concepts in a shorter time.

Concerning therapy, during the sessions, patients complained of complexity of studied notions. It would be interesting to limit the time devoted to the theory in order to carry out more practical exercises. Another improvement would be to start some of the homework at the time of the session. This would perhaps reduce the length of the sessions. It would be interesting to judge the quality of patient participation during sessions by estimating the patient's overall attention, the number of times he / she participates and if it is appropriate, and the quality of their achievement, if patients have to interrupt the session and why, and the number of times he performs homework. About that, very few

patients completed homework, maybe because of lack of motivation, forgetfulness, or the homework was too complex. It seems interesting to explore by interview or questionnaire real reasons.

#### 4.5.2. Study

Due to the small number of patients analyzed, a per-protocol analysis makes it possible to better evaluate the therapeutic effect of the VIVEC intervention. In a second time, an intent-to-treat analysis with more patients could help to identify factors that favor or not this therapy. Moreover, it would be more convincing if the investigator is not a facilitator or evaluator.

It would be important to compare the VIVEC group with a randomized and controlled control group, in order to have an estimate of the contribution of this treatment, compared to usual treatment. If there is an improvement, we can compare it with another group that does not use the same techniques, in order to identify whether it is the group or the therapy that is at the origin of an improvement. It is not possible to determine with this study whether it is the group itself that leads to improvement or therapy. It would be necessary to carry out a psychotherapeutic control group that does not teach cognitive-behavioral therapy concepts, such as support group. A good example of a control group can be found in the 2016 Wuthrich study. It is a focus group where directive skills and specific-therapies are avoided. (12) Several VIVEC pilot groups should be carried out, in order to improve psychotherapy, before performing a randomized controlled trial.

Patients did not appreciate the questionnaires. Maybe it is possible to propose that the questionnaires be made by someone outside the group, in order to limit the number of them as part of the psychotherapy. We could then carry out specific questionnaires for therapies used, as Acceptance and Action Questionnaire-II (AAQ-II; psychologic flexibility), Behavioral Activation for Depression Scale – Short Form (BADSD-SF; behavioral activation), Negative Problem Orientation Questionnaire (NPOQ; dysfunctional attitudes toward problem-solving), and Cognitive Avoidance Questionnaire (CAQ; cognitive avoidance).

If we have the opportunity, we will experiment with this program in another center.

There is a greater decrease in the amount of benzodiazepines in the waiting list group. However, patients in the VIVEC group use an average of more benzodiazepines at baseline than the waiting list group. Moreover, patients in the waiting list group seem less affected by depressive and anxiety disorders. This may explain why treatment reduction is faster in this group.

#### 4.5.3. Next group; VIVEC 2019

The goal of this group is primarily to perfect this new psychotherapy program. To improve the group of 2019, thanks to the lessons of the first group, here are some proposals:

Concerning the group:

Sessions should have less theoretical notions, to give more importance to practice. They should be re-evaluated before each session by a therapist, different from the one who realized those of VIVEC 2018. The homework could be started during the sessions, in order to increase adhesion.

Concerning evaluations:

Post-treatment and follow-up evaluations will not be done by the initial evaluator. The initial evaluator will not participate, or only very partially, in sessions.

Before the sessions, at the end and in follow-up, questionnaires specific to psychotherapeutic aspects (see above) can be used.

A session-by-session quality evaluation of patient's participation by the group's facilitators will be interesting (see above).

#### **4.6. Limitations**

This study has limitations. Patient recruitment and evaluation was done by a group leader and investigator of the study. This study was performed per protocol with a panel of selected patients (volunteer), so efficiency may be overestimated. Treatment changes during psychotherapy and follow-up are a confounding factor of actual effectiveness of the therapy. However, it seems unethical to prevent patients from receiving the treatments they need. There are few patients in both groups so results may be random by lack of statistical power. The sample is small, with high attrition level. Groups were not randomized, so they were not comparable. The waiting list group does not benefit from psychotherapy control. Because of the lack of patients, we choose to combine patients with unipolar and second type bipolar disorder. Very few patients completed homework. In the waiting list group, many patients did not respond to the questionnaires sent.

#### **5. Conclusion**

This pilot study is an integral part of research in psychiatry, through the use of new technics, compatible with the latest scientific data. This is an imperfect first step, because of its innovative nature, but it is essential to determine if this type of therapy improves treatment as usual. We notice an improvement in both groups of depression, anxiety, and quality of life. However, it is not possible in this study to determine whether the psychotherapy group significantly improves the usual treatment. The waiting list group will benefit from therapy in 2019, which will undoubtedly lead to improve this psychotherapy.

From a personal point of view, this thesis allows me to develop my experience as a psychotherapist, to understand the difficulties (and benefits) around the creation and animation of a group of psychotherapy, and to better understand the world of clinical research.

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(Ce document sera à insérer dans les thèses définitives)

Titre :

VIVEC : Élaboration d'une psychothérapie cognitivo-comportementale de groupe à but anti-dépressif chez la personne-âgée

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**Glossary**

ACT = Acceptance and Commitment Therapy

ANOVA = Analysis of variance

CBT = Cognitive Behavioral Therapy

GAI-FC = Geriatric Anxiety Inventory-French Canadian

GDS30 = Geriatric Depression Scale 30

MINI = Mini International Neuropsychiatric Interview Version 5.0.0. – Diagnostic and Statistical Manual of Mental Disorders, 4th Edition

WHOQOL-BREF = World Health Organization Quality of Life short version

## Appendix

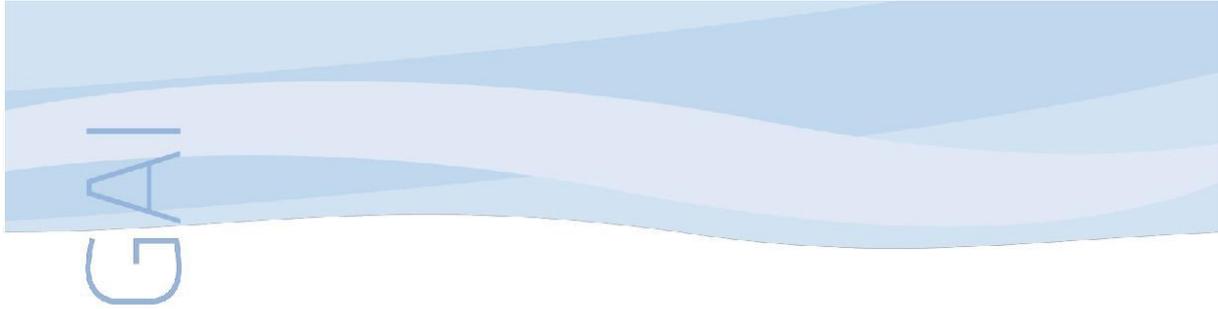
### Appendix 1 : Selection of previous interventions

Authors	Intervention	Characteristics of participants	Duration	Significant results	Limits
Wuthrich and al (2016) (52)	Group CBT “Ageing Wisely”, RCT	N=133, mean age = 67.35 Diagnosis : Anxiety disorder and unipolar mood disorder Group 1 = CBT Group 2 = discussion group	11 sessions	Group × time interaction at post-treatment for group 1 (severity and recovery rates of the primary disorder; mean severity of all anxiety disorders, mood disorders, and all disorders)	Attrition, mean age of sample relatively young
Wuthrich and al (2013) (31)	Group CBT “Ageing Wisely”, RCT	N=62, mean Age = 67.44 Diagnosis : Group 1 = CBT Group 2 = waiting list	11 sessions	Treatment × time interactions for anxiety and depression (gains maintained at 3 month follow up).	Attrition, mean age of sample relatively young, waiting list
Wetherell and al (2003) (63)	Group CBT, randomized trial	N=75, mean age = 67.1 Diagnosis : Generalized Anxiety Disorder Group 1 = CBT Group 2 = discussion group Group 3 = waiting list	12 sessions	CBT is significantly effective on worry to discussion group at post-treatment	Attrition, small sample, mean age of sample relatively young,
Krishna and al. (2011) (20)	MA; Groups CBT, RCTs	6 RCTs, mean age between 66 and 84.3 Diagnosis : depression Groups : CBT; active therapeutic interventions;waiting list controls	Mean number of weekly session = 12.8	Group psychotherapy is significantly effective in comparison to waiting list controls	Various quality of studies, scarce RCTs, various diagnostic criteria
Krishna and al. (2015) (60)	MA; Groups CBT, RCTs	8 studies from 6 RCTs, age > 55 Diagnosis : sub clinical depression Groups : CBT, waiting list, group education, treatment as usual	Unknow	Group psychotherapy is significantly effective in comparison to waiting list controls	Various quality of studies, scarce RCTs, young elderly, various diagnostic criteria, no effective interventions for controls

Note : N = number of participants, CBT = Cognitive Behavioral Therapy, ACT = Acceptance and Commitment Therapy; RCT = Randomized Controlled Trial; MA = Meta-analysis;



		oui	non
18	Ressassez-vous beaucoup le passé ?	<input type="checkbox"/> *	<input type="checkbox"/>
19	Trouvez-vous que la vie est passionnante ?	<input type="checkbox"/>	<input type="checkbox"/> *
20	Avez-vous des difficultés à entreprendre de nouveaux projets ?	<input type="checkbox"/> *	<input type="checkbox"/>
° 21	Avez-vous beaucoup d'énergie ?	<input type="checkbox"/>	<input type="checkbox"/> *
° 22	Désespérez-vous de votre situation présente ?	<input type="checkbox"/> *	<input type="checkbox"/>
° 23	Pensez-vous que la situation des autres est meilleure que la vôtre, que les autres ont plus de chance que vous ?	<input type="checkbox"/> *	<input type="checkbox"/>
24	Etes-vous souvent irrité(e) par des détails ?	<input type="checkbox"/> *	<input type="checkbox"/>
25	Eprouvez-vous souvent le besoin de pleurer ?	<input type="checkbox"/> *	<input type="checkbox"/>
26	Avez-vous du mal à vous concentrer ?	<input type="checkbox"/> *	<input type="checkbox"/>
27	Etes-vous content(e) de vous lever le matin ?	<input type="checkbox"/>	<input type="checkbox"/> *
28	Refusez-vous souvent les activités proposées ?	<input type="checkbox"/> *	<input type="checkbox"/>
29	Vous est-il facile de prendre des décisions ?	<input type="checkbox"/>	<input type="checkbox"/> *
30	Avez-vous l'esprit aussi clair qu'autrefois ?	<input type="checkbox"/>	<input type="checkbox"/> *
° Ces items sont ceux retenus dans la version abrégée à 15 items (Sheikh et Yesavage, 1986).			
* Attribuer un point quand la case près de l'astérisque est cochée et faire la somme.			
		<b>Total</b>	<input type="text"/> + <input type="text"/>
		<b>Score</b>	<input type="text"/>



**GAI (Inventaire d'anxiété gériatrique):** Veuillez répondre à ces affirmations en vous basant sur ce que vous avez ressenti au cours de la dernière semaine. Cochez le cercle situé sous **D'ACCORD** si vous pensez que l'affirmation vous correspond globalement ; cochez le cercle situé sous **PAS D'ACCORD** si vous pensez qu'elle ne vous correspond pas.

	D'ACCORD	PAS D'ACCORD
Je suis souvent inquiet/inquiète.		
J'ai du mal à prendre une décision.		
Je change souvent d'humeur.		
J'ai du mal à me relaxer.		
Mes angoisses me gâchent la vie.		
Un rien me tracasse.		
J'ai souvent des maux d'estomac.		
Je pense être quelqu'un d'angoissé.		
Je m'inquiète pour un rien.		
Je suis souvent nerveux(se).		
Mes pensées m'inquiètent.		
Mes angoisses me nouent l'estomac.		
Je suis quelqu'un de nerveux.		
Je suis pessimiste.		
Je me sens fébrile intérieurement.		
Mes angoisses m'empêchent de vivre pleinement.		
Je suis souvent envahi(e) par mes angoisses.		
J'ai une boule dans l'estomac.		
Je passe à côté de certaines choses car je suis trop angoissé(e).		
Je suis souvent déstabilisé(e).		

Original GAI reference: Pachana, N.A., Byrne, G.J., Siddle, H., Koloski, N., Harley, E., & Arnold, E. (2007). Development and validation of the Geriatric Anxiety Inventory. *International Psychogeriatrics*, 19, 103-114.

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**ECHELLE DE QUALITE DE VIE DE L'OMS  
WORLD HEALTH ORGANIZATION QUALITY OF LIFE  
WHOQOL-Bref / WHOQOL 26**

**Outil d'évaluation**

NOM :

PRENOM :

SEXE :

AGE :

DATE :

Les questions suivantes sont destinées à recueillir votre appréciation en ce qui concerne votre qualité de vie, votre santé ou d'autres domaines de votre vie.

Lisez attentivement les questions et les réponses qui vous sont proposées et choisissez la réponse qui vous apparaît être la réponse la plus appropriée.

Si vous ne savez pas quelle réponse donner à une question, le premier avis qui vous vient à l'esprit est souvent le meilleur.

En faisant référence à vos normes, à vos conduites dans la vie, à vos espoirs et attentes, à vos sources de plaisirs et à vos préoccupations, nous vous demandons ce que vous pensez de votre vie **au cours des deux dernières semaines**.

	Très mauvaise	Mauvaise	Ni bonne, ni mauvaise	Bonne	Très bonne
1. Comment trouvez-vous votre qualité de vie ?	1	2	3	4	5

	Pas du tout satisfait	Pas satisfait	Ni satisfait, ni insatisfait	Satisfait	Très satisfait
2. Etes-vous satisfait de votre santé ?	1	2	3	4	5

Les questions suivantes portent sur un certain nombre de situations ou réflexions que vous avez pu rencontrer ou aborder au cours des deux dernières semaines.

	Pas du tout	Un peu	Modérément	Beaucoup	Complètement
3. Actuellement, une douleur (physique) vous empêche-t-elle de faire ce que vous avez à faire ?	5	4	3	2	1
4. Un traitement médical vous est-il nécessaire dans votre vie de tous les jours ?	5	4	3	2	1
5. Trouvez-vous votre vie agréable ?	1	2	3	4	5
6. Vos croyances (convictions personnelles) donnent-elles un sens à votre vie ?	1	2	3	4	5

	Pas du tout	Un peu	Modérément	Beaucoup	Tout à fait
7. Etes-vous capable de vous concentrer ?	1	2	3	4	5
8. Vous sentez-vous en sécurité dans votre vie de tous les jours ?	1	2	3	4	5
9. Votre environnement est-il sain du point de vue de la pollution, du bruit, de la salubrité, etc. ?	1	2	3	4	5

Les questions suivantes portent sur la façon dont vous avez été en mesure de faire ou gérer certaines choses au cours des deux dernières semaines.

	Pas du tout	Un peu	Modérément	Suffisamment	Tout à fait
10. Avez-vous assez d'énergie dans la vie de tous les jours ?	1	2	3	4	5
11. Acceptez-vous votre apparence physique ?	1	2	3	4	5
12. Avez-vous assez d'argent pour satisfaire vos besoins ?	1	2	3	4	5
13. Avez-vous le sentiment d'être assez informé(e) pour faire face à la vie de tous les jours ?	1	2	3	4	5
14. Avez-vous la possibilité d'avoir des activités de loisirs ?	1	2	3	4	5

Note: There was an error in the French document used for this review. Indeed the order of the listing of items 3 and 4 was reversed. This has been taken into account in the calculations.

## Appendix 7 : World Health Organization Quality Of Life Short Version, French version, page 3

		Très mauvaise	Mauvaise	Ni bonne, ni mauvaise	Bonne	Très bonne
15.	Comment trouvez-vous votre capacité (physique) à vous déplacer seul ?	1	2	3	4	5

		Pas du tout satisfait	Pas satisfait	Ni satisfait, ni insatisfait	Satisfait	Très satisfait
16.	Etes-vous satisfait de votre sommeil ?	1	2	3	4	5
17.	Etes-vous satisfait de votre capacité à accomplir vos activités quotidiennes ?	1	2	3	4	5
18.	Etes-vous satisfait de votre capacité à travailler ?	1	2	3	4	5
19.	Etes-vous satisfait de vous-même ?	1	2	3	4	5
20.	Etes-vous satisfait de vos relations personnelles ?	1	2	3	4	5
21.	Etes-vous satisfait de votre vie sexuelle ?	1	2	3	4	5
22.	Etes-vous satisfait du soutien que vous recevez de vos amis ?	1	2	3	4	5
23.	Etes-vous satisfait de l'endroit où vous vivez ?	1	2	3	4	5
24.	Avez-vous facilement accès aux soins (médicaux) dont vous avez besoin ?	1	2	3	4	5
25.	Etes-vous satisfait de vos moyens de transport ?	1	2	3	4	5

## Appendix 8 : World Health Organization Quality Of Life Short Version, French version, page 4

		Jamais	Parfois	Souvent	Très souvent	Toujours
26.	Eprouvez-vous des sentiments négatifs comme le cafard, le désespoir, l'anxiété ou la dépression ?	1	2	3	4	5

Avez-vous des commentaires sur cette évaluation ?

Si oui, précisez : .....

.....

.....

.....

.....

## Appendix 9 : WHOQOL-BREF - Method for converting raw scores to transformed scores

DOMAIN 1		
Raw Score	Trasnformed scores	
	4-20	0-100
7	4	0
8	5	6
9	5	6
10	6	13
11	6	13
12	7	19
13	7	19
14	8	25
15	9	31
16	9	31
17	10	38
18	10	38
19	11	44
20	11	44
21	12	50
22	13	56
23	13	56
24	14	63
25	14	63
26	15	69
27	15	69
28	16	75
29	17	81
30	17	81
31	18	88
32	18	88
33	19	94
34	19	94
35	20	100

DOMAIN 2		
Raw score	Trasnformed scores	
	4-20	0-100
6	4	0
7	5	6
8	5	6
9	6	13
10	7	19
11	7	19
12	8	25
13	9	31
14	9	31
15	10	38
16	11	44
17	11	44
18	12	50
19	13	56
20	13	56
21	14	63
22	15	69
23	15	69
24	16	75
25	17	81
26	17	81
27	18	88
28	19	94
29	19	94
30	20	100

DOMAIN 3		
Raw score	Transformed scores	
	4-20	0-100
3	4	0
4	5	6
5	7	19
6	8	25
7	9	31
8	11	44
9	12	50
10	13	56
11	15	69
12	16	75
13	17	81
14	19	94
15	20	100

DOMAIN 4		
Raw score	Transformed scores	
	4-20	0-100
8	4	0
9	5	6
10	5	6
11	6	13
12	6	13
13	7	19
14	7	19
15	8	25
16	8	25
17	9	31
18	9	31
19	10	38
20	10	38
21	11	44
22	11	44
23	12	50
24	12	50
25	13	56
26	13	56
27	14	63
28	14	63
29	15	69
30	15	69
31	16	75
32	16	75
33	17	81
34	17	81
35	18	88
36	18	88
37	19	94
38	19	94
39	20	100
40	20	100

## Appendix 10 : WHOQOL-BREF - Equations for computing domain scores

	Equations for computing domain scores	Raw score	Transformed scores*	
<b>Domain 1</b>	$(6-Q3) + (6-Q4) + Q10 + Q15 + Q16 + Q17 + Q18$ $\square + \square + \square + \square + \square + \square + \square$	=	<b>4-20</b>	<b>0-100</b>
<b>Domain 2</b>	$Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26)$ $\square + \square + \square + \square + \square + \square$	=		
<b>Domain 3</b>	$Q20 + Q21 + Q22$ $\square + \square + \square$	=		
<b>Domain 4</b>	$Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25$ $\square + \square + \square + \square + \square + \square + \square + \square$	=		

## REGLES DU GROUPE



## La confidentialité

- Les participants utilisent uniquement le prénom des autres.
- Aucune information personnelle ne sort de la pièce
- Partager ses expériences est très utile mais on ne le fait que si on le souhaite



## Les échanges

- Les thérapeutes vous vouvoient et sont à vouvoyer
- Les participants se tutoient ou se vouvoient
- Il est souhaitable de mettre toujours en avant le **positif** en premier lors d'une remarque ou d'une critique



## La régularité

- Elle est essentielle et nécessaire pour progresser
- Il est indispensable de prévenir à l'avance de son absence (sauf cas extrêmes)



## La participation

- Elle doit être active pendant le groupe ... mais aussi entre les séances !

## Appendix 12 : Table of statistic tests (ANOVA and linear mixed model fit by REML)

		ANOVA						Linear mixed model fit by REML				
		Sum Sq	Mean Sq	NumDF	DenDF	F. value	Pr(>F)	Estimate	Std. Error	df	t value	Pr(> t )
Depression	temps:groupe	52.619	26.310	2	20.090	2.0219	0.15848					
	temps2:groupe VIVEC							-1.074	2.944	20.072	-0.365	0.719176
	temps3:groupe VIVEC							-5.588	2.914	20.027	-1.917	0.069571
Anxiété	temps:groupe	2.630	1.315	2	20.307	0.1652	0.848867					
	temps2:groupe							-0.867	2.302	20.287	-0.377	0.7104

	VIVEC										
	temps3:groupe VIVEC						-1.277	2.279	20.238	-0.560	0.5815
Quality of life	temps:groupe	2.623	1.312	2	20.038	0.04754	0.9537				
	temps2:groupe VIVEC						-1.2761	4.2843	20.0150	-0.298	0.769
	temps3:groupe VIVEC						-0.2949	4.2414	19.9570	-0.070	0.945

Note : Sum Sq = Sum-of-Square; Mean Sq = Mean Sum-of-square; NumDF = Number of degrees of freedom; DenDF = Degrees of Freedom; Pr(>F) = p-value; Std. Error = Standard error; df = Degrees of Freedom; Pr(>|t|) = p value

#### Appendix 13 : Patients' opinion about therapy and their evolution (at pre-treatment, post-treatment and follow-up)

Case number	Group	Notions described in the therapy and used	Survey
A1			<p>« parfois il serait bien d'avoir à noter entre le oui ou le non » (W ; M3)</p> <p>« dommage qu'il n'y a pas le choix de répondre entre les 2 propositions » (W ; M6)</p> <p>« j'ai rechuté depuis hier, donc les réponses ne sont pas faciles ou exactes » (W ; M6)</p>
A2	<p>« le contexte du groupe n'est plus là et j'ai beaucoup de mal à m'accepter telle que je suis » (W ; M3)</p> <p>« je suis contente de l'avoir fait [about the group] » (W ; M3)</p> <p>« je vous remercie de votre délicatesse [for group leaders]...j'ai senti souvent vos encouragements dans vos regards insistants » (W ; M3)</p> <p>« je me sens mieux avec vos traitements = [drug treatment] et toute la sympathie que je ressens qui me vient de vous » (W ; M6)</p>	<p>« le regard des autres sur moi me paraît toujours négatif » « je suis gênée [...] d'être le centre d'intérêt d'un groupe, ou d'une personne » (W ; M0)</p> <p>« je ne m'accepte pas comme je suis. Les autres sont mieux que moi. Je suis en marche vers un mieux » (W ; M3)</p> <p>« mes garçons [...] ont du mal à accepter mon état actuel. Ils ne comprennent pas mes peurs. Ils voudraient me voir comme avant » (W M3)</p> <p>« j'ai beaucoup de mal à m'accepter telle que je suis [...] il a fallu attendre 70 ans pour comprendre cela et combien d'erreurs dites et faites avec cela » (W ; M3)</p> <p>« j'ai pris l'habitude de dire « bonjour » aux gens que je croise et de plus en plus de personnes me répondent » (W ; M3)</p>	<p>« je n'aime pas ce genre de questionnaire. Je trouve que les questions se ressemblent. Je préfère un courrier » (W ; M6)</p>

		« je me suis inscrite aux séances de yoga du Rire [...] j'espère apprendre à rire de moi et à relativiser le négatif qui est en moi » (W ; M6) « je suis en changement et cela me dynamise » (W ; M6)	
A4	« je n'ai pas pris de nouvelle des autres [...] je vais prendre des nouvelles de {name of the patient} » (O ; M6) « une séance de révision est prévue ? » (O ; M6)	« je prévois tous les jours quelque chose » (O ; M6) « je suis fatiguée le soir, car je suis occupée toute la journée » (O ; M6) « ça va mieux, mais c'est pas facile » (O ; M6)	
A6			« Mes réponses sont à nuancer en fonction des jours » (W ; M3)
A7		« ma vie a changé depuis mon séjour en [localization] » (W ; M3) « j'ai repris la conduite seule, le vélo » (W ; M3)  « Quelques difficultés en ce qui concerne l'avenir, les peurs [...] et l'argent » (W ; M6)	
A8	« ma demande relative à une ou plusieurs réunions du groupe que nous formions pour faire le point » (W ; M3) « merci pour tout ce que vous nous avez [for group leaders] apporté » (W ; M3)		« pour le questionnaire GAI, j'ai beaucoup hésité » (W ; M3)
A10	« très bonne initiative, à refaire » (W ; M3) « soutien très important » (W ; M6) « envie de savoir ce que sont devenu les autres membres du groupe » (W ; M6)	« appris à ne pas être négative » (W ; M6) « suite au « module » bonne dynamique, mieux être [...] mais [...] rechute avec recrudescence de problèmes [somatic] » (W ; M6)	

Note : W : written opinion; O: oral opinion, M0 : pre-treatment; M3: post treatment, M6: follow up

**ASTRIE, Géraldine. – VIVEC : Élaboration d'une psychothérapie cognitivo-comportementale de groupe à but anti-dépressif chez la personne-âgée.**

Nombre de feuillets paginés : 5960, illustrations = 6, tableau = 9 , 30 cm. – Thèse : (Psychiatrie) ; Rennes 1 ; 2018 : N°

**Résumé français :**

**Introduction :** Nous avons réalisé un groupe de psychothérapie mêlant deux types de thérapies cognitivo-comportementale, dont nous avons observé l'efficacité. Le critère de jugement principal était l'évolution de la symptomatologie dépressive à 6 mois. Les critères de jugements secondaires étaient la symptomatologie anxieuse et la qualité de vie.

**Méthodes :** 19 patients, de plus de 60 ans, ayant un Mini-Mental State Examination score  $\geq 24$ , ont été inclus (âge moyen = 73,85 ans), successivement, dans le groupe de psychothérapie et le groupe liste d'attente. Les patients avaient un antécédent inférieur à un an de trouble dépressif majeur, et/ou de dysthymie, et/ou de trouble dépressif non spécifique, et/ou un antécédent de moins d'un an de trouble anxieux. Les participants devaient remplir des questionnaires en pré-traitement, à 3 mois de l'inclusion et à 6 mois de l'inclusion.

**Résultats :** On constatait une amélioration dans les deux groupes de la dépression, de l'anxiété et de la qualité de vie. Le pourcentage d'amélioration de la dépression est meilleur dans le groupe VIVEC. Les tests statistiques ne sont pas significatifs.

**Conclusion :** Cette étude pilote montre une amélioration sur les critères de jugement principaux et secondaire. Cette expérience permet d'améliorer les groupes à venir.

**Résumé anglais :**

**Introduction:** We realized a group of psychotherapy mixing two types of cognitive-behavioral therapies, whose effectiveness we observed. The primary endpoint was evolution of depressive symptomatology at 6 months. The criteria for secondary judgments were anxious symptomatology and quality of life.

**Methods:** 19 patients, over 60 years of age, with a Mini-Mental State Examination score  $\geq 24$ , were included (mean age = 73.85 years), successively, in the psychotherapy group and the waiting list. Patients had a history of less than one year of major depressive disorder, and / or dysthymia, and / or non-specific depressive disorder, and / or an antecedent of less than one year of anxiety disorder. Participants were required to complete pre-treatment questionnaires, at 3 months of inclusion and 6 months of inclusion.

**Results:** There was improvement in both groups of depression, anxiety, and quality of life. The percentage improvement in depression is better in the VIVEC group. Statistical tests are not significant.

**Conclusion:** This pilot study shows an improvement in the primary and secondary endpoints. This experience will improve future groups.

Rubrique de classement : PSYCHIATRIE

Mots-clés : Anxiété, dépression, thérapie cognitivo-comportementale, thérapie d'acceptation et d'engagement, thérapie de groupe, personnes âgées

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