



# Inpatients-to-caregivers violence in geriatric settings: impact of assaults on caregivers' mental health, risk, and protective factors

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# Traumatology

## Inpatients-to-caregivers violence in geriatric settings: Impact of assaults on caregivers' mental health, risk and protective factors --Manuscript Draft--

<b>Manuscript Number:</b>	
<b>Full Title:</b>	Inpatients-to-caregivers violence in geriatric settings: Impact of assaults on caregivers' mental health, risk and protective factors
<b>Abstract:</b>	The psychological suffering of caregivers is a widely established fact. Indeed, these patients present numerous aggressive behaviors directed nursing staff, considering their diagnoses. This violence has effects on caregivers' mental health. Numerous articles have studied this question however it is rare that French studies have combined qualitative and quantitative approaches to the problem. With the aim of examining the effect of these attacks, we set up the two following studies. The first one, a qualitative study, is based upon clinical interviews. The second one, a quantitative study, uses four validated tools (measuring anxiety with STAI-Y, burnout with MBI and BMS, and post-traumatic stress with IES-R) and a questionnaire assessing the presence and frequency of the assaults. 64 caregivers have participated in this research. From a qualitative point of view, the interviews bring to light the fact that caregivers suffering attacks try to manage them with active coping (explanations, requests for external help) but that as their frequency increases, they resort to flight or avoidance coping strategies. Our research shows that rather than the intensity of the attacks, it is their frequency which has a significant effect on the caregiver's suffering. The more the attacks are frequent, the more the levels of burnout, anxiety-state and post-traumatic stress increase. These results show that the assaults of the residents, even when not considered as dangerous, can have a heavy impact on caregivers' mental health.
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# Inpatients-to-caregivers violence in geriatric settings: Impact of assaults on caregivers' mental health, risk and protective factors

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# Inpatients-to-caregivers violence in geriatric settings: Impact of assaults on caregivers' mental health, risk and protective factors

## INTRODUCTION

The aging of the French population has led to the apparition of neurovegetative and psychopathological symptoms becoming more frequent and severe in the elderly (degenerative dementia, depression) (Cohen-Mansfield, 2009). The complexity of their care has given rise to an increasingly striking phenomenon: the psychological suffering of professionals providing that care (Poulin, 2002; Rigaud-Berroyer, 1997). The caregiver working in geriatric institutions suffers from the physical strenuousness of their job (excessive workload, lift heavy patients, irregular schedules), as in other professions, but also from frequent, intense and chronic stressful situations. Indeed, the many chronically stressful situations appear to be specific because of psychological and neuropsychological disorders of the population with which the caregivers are working. These disorders, present in a substantial number of institutionalized elderly (called "residents"), often lead to aggressive behaviour, ranging from verbal aggressions to physical assaults against caregivers. The relationships with the resident can then become difficult, constraining, a source of questions, in the long run, at the root of psychological suffering. Stress and burnout are often reported by caregivers (Boudoukha, Courty & Hautekeete, 2007; Courty, Bouisson & Compagnone, 2004; Mauranges & Canouï, 2001) becoming more likely to respond by acts of abuse and mistreatment against the elderly with whom they came to work by vocation (Terreau, 2007). Those acts are often linked with the violence they consider themselves victims of and which contributes to their mental suffering.

## Aggression, burnout and geriatric institutions

Exposure to violence such as assaults has an undeniable psychological impact in terms of both post-traumatic stress and burnout (Arnetz & Arnetz, 2001; Nienhaus, Westermann, & Kuhnert, 2012). Burnout, commonly associated with caring services, is defined by Maslach and Jackson (1986, 1991) as a three-dimensional syndrome composed with emotional exhaustion, depersonalization and reduced personal accomplishment. It is partly rooted in the negative feelings provoked by a deterioration of interpersonal relationships (Boudoukha, 2009). Aggressions, considered as a sign of the deterioration of these relationships, could lead to burnout in an individual who is regularly faced by such behaviour. Thus, studies on caregivers' burnout show that investment and involvement in care from individuals suffering are predictive factors of burnout (Boudoukha et al., 2007 ; Nienhaus, Westermann, & Kuhnert, 2012). The more the caregivers are involved in the relationship, the greater the risk of burnout is important. Caregivers working with elderly seem to be very vulnerable to burnout (Courty, Bouisson, & Compagnone, 2004 ; Estryn-Behar et al., 2006 ; Gandoy-Crego, Clemente, Mayán-Santos, & Espinosa, 2009 ; Hazif-Thomas & Thomas, 2011; Rigaud-Berroyer, 1997). From research on the causes and consequences of burnout, some are more interested in the impact of aggressions (Boudoukha, Hautekeete, Abdelaoui, Groux, & Garay, 2011 ; Manzonni & Eisner, 2006 ; Truchot & Badré, 2004 ; Winstanley & Whittington, 2002). Yet, this problem seems to have been little studied amongst caregivers in geriatric institutions where, paradoxically, aggressive behaviours emanating from residents are frequent. However, aggressive behaviour from residents has many behavioral, cognitive and emotional consequences. First, these assaults make the work environment threatening and will affect anxiety : temporary state-anxiety and anxiety related to the specific situation ; possibly also, with time, on trait-anxiety, a stable and constant personality dimension (Graziani, 2005 ; Grondin, Husky, Doron, Dovero, & Swendsen, 2003 ; Peretti, 1998 ; Vincent, 2004). This process can be considered as a circular transaction. Indeed, because of attentional bias,

anxiety will influence how the assault will be perceived and experienced. The individual will preferentially select potentially threatening stimuli in the environment (Chen, Hwu, & Williams, 2005 ; van der Velden, Kleber, Grievink, & Yzermans, 2010 ; Winstanley & Whittington, 2002). Moreover, post-traumatic symptoms are often associated with the phenomenon of assaults. If these symptoms persist, they may lead to post-traumatic stress disorder (PTSD) (American Psychiatric Association, 2003 ; Chidiac & Crocq, 2010, 2011). In this context, aggressions are considered as traumatic events. According to the DSM-IV, a traumatic event is an event involving both a threat to life or physical integrity (criteria A1) and also causing a feeling of horror and helplessness (criteria A2) (American Psychiatric Association, 2003). Some research with caregivers working in psychiatric institutions has shown that aggressions could cause post-traumatic symptoms (Mealer, Burnham, Goode, Rothbaum, & Moss, 2009 ; Wikes & Whittington, 1998). If however assaults are more violent and intense due to the severity of certain disorders in a psychiatric setting, it is nonetheless rare to find French research which have investigated this issue in geriatric institutions. The consequences of inpatients-to-caregivers assaults are rarely studied, as well as protective and risk factors to psychological suffering.

That is why our research aims to study the effect of aggressive behaviors of residents against caregivers from a clinical and psychopathological perspective. First, we analyzed, in psychopathological terms, the impact of these assaults on levels of state-anxiety, burnout and post-traumatic stress among caregivers. Then, in order to go further in the analysis of results, we conducted clinical interviews to understand (i) the subjective experience of caregivers dealing with assaults and (ii) the protective and risk factors underlying their experience. This study is therefore unique and innovative in that it combines qualitative and quantitative aspects. Some works suggest that there is a process of cognitive appraisal of non-dangerosity used by some professionals facing assaults (Boudoukha, Altintas, Rusinek, Fantini-Hauwel, &

Hautekeete, 2013). Thus, we make two main hypotheses, divided each into two specific hypotheses :

1. Psychological impact of residents' aggressions against caregivers will not have a traumatic effect :

Aggressive behaviour will have no impact on the levels of post-traumatic stress in caregivers ;  
Clinical interviews of caregivers will not show traumatic descriptions or feelings in relation to the aggression.

2. Psychological impact of resident's aggressions against caregivers will have an impact in terms of anxiety and burnout :

Aggressive behaviour will increase levels of anxiety and burnout in caregivers ;  
Clinical interviews of caregivers will show a feeling of burnout and a controlled description of aggression.

## **METHODS**

### **Participants**

The study was carried out in nursing homes welcoming elderly residents with varying levels of dependance. Each institution had a closed ward for residents with dementia, where each caregiver spent time working. Caregivers voluntarily participated in the research and without compensation.

#### ***Quantitative study***

Our sample is composed of 43 female caregivers who completed questionnaires. The group is composed of 13 nurses, 23 auxiliaries, 6 housekeepers and 1 medical-psychological assistant. The average age is 39,4 years ( $\sigma = 9,2$ ). They have, on average, been working as caregivers for 14,1 years ( $\sigma = 9,1$ ) and have been present in the institution for 7,5 years ( $\sigma = 6,1$ ). In the institutions where the study was conducted, housekeepers assist residents in daily life and are thus at the heart of the care system.



### ***Qualitative study***

We conducted interviews with 21 female caregivers (7 nurses, 11 auxiliaries, 3 housekeepers). The average age was 36,6 ( $\sigma = 9,9$ ). They have, on average, been working as caregivers for 12,9 years ( $\sigma = 8,7$ ) and have been present in the institution for 6,4 years ( $\sigma = 4,56$ ). These sociodemographic data are similar to those of the first group, with the aim to homogenize as much as possible our samples.

## **Measures**

### ***Quantitative study***

#### **Burnout : Maslach Burnout Inventory (MBI) & Burnout Measure Short Version (BMS-10)**

The MBI is comprised of 22 items rated by the participants on a 7-point Likert scale (Maslach & Jackson, 1981, 1986). It provides separate measures of each of the three subscales : emotional exhaustion, depersonalization and personal accomplishment. It is therefore not possible to measure an overall score. However, a high score in the subscales of emotional exhaustion and depersonalization combined with a low score for personal accomplishment represents a high degree of burnout. This scale is the most used because of its good psychometric properties equivalent between the French version and the original version (Dion & Tessier, 1994). Cronbach's coefficient alpha provided reliability coefficients of .90 for emotional exhaustion, .64 for depersonalization and .74 for personal accomplishment. This tool also has good temporal stability and good convergent validity (Schutte, Toppinen, Kalimon, & Schaufeli, 2000 ; Storm & Rothmann, 2003).

The BMS-10 is a tool for measuring burnout, comprised of 10 items rated by the participants on a 7-point Likert scale (Lourel, Gueguen, & Mouda, 2007). We used the validated French

version which has good psychometric properties, such as a satisfactory internal consistency (Cronbach's coefficient  $\alpha = .86$ ) equal between the version of Malach-Pines and the French version. There is also a good temporal stability (coefficient of test-retest reliability = .87 for the French version, coefficient closed to that obtained for the original version). BMS-10 is positively correlated in a significant way with the dimension of emotional exhaustion measured by the MBI.

#### Post-traumatic stress : Impact of Event Scale-Revised (IES-R)

This tool comprises 22 items that measure the intensity of post-traumatic stress symptoms : intrusion, avoidance and hyperarousal (Brunet, St-Hilaire, Jehel, & King, 2003). Items are rated by the participants on a 5-point Likert scale. It has good psychometric properties with a good internal consistency (.81 to .93 for the three subscales) and a satisfactory internal consistency (.71 to .76).

#### State anxiety : State-Trait Anxiety Inventory (STAI-Y)

The State-Trait Anxiety Inventory, frequently used by researchers and practitioners, examines state and trait anxiety independently (Bruchon-Schweitzer & Paulhan, 1993 ; Spielberger, Gorsuch, Lushene, Vaag, & Jacobs, 1983). The Y-A scale comprises 20 items rated on a 4-point Likert scale. It has excellent internal consistency, with all Alpha coefficients being equal to at least .90. State-anxiety reflects anxiety levels at a particular point in time, influenced by situational factors, and therefore test-retest reliability is quite low.

#### Measure of aggressions inventory

This questionnaire, constructed for the purposes of the study, measures a) the presence or absence of aggressions, b) the kind of aggressions (verbal assaults, physical attacks,

threatening behaviors) and c) the frequency of each type of aggressions, rated on 5-point Likert scale (1 = never frequent ; 5 = highly frequent).

### ***Qualitative study : research clinical interviews***

The aim was to explore violence and aggressiveness of residents against caregivers in nursing homes. We have developed a standardised instruction and built the semi-structured interview around 3 questions :

- 1- Can you describe your work ?
- 2- Can you tell me about difficult, aggressive situations with the residents?
- 3- How do you react in these situations ?

The first question aimed to establish a secure relationship with caregivers. Therefore, in our research studying experience and impact of violence, only questions 2 and 3 will be addressed and discussed in the context of this article.

### **Procedure and data analysis**

We solicited thirty institutions based in the city of Nantes and its metropolitan area (mail, telephone). After meeting with directors of the structures, six gave their consent. The participation was therefore 20% and the most common reason for refusal was an excessive workload within the team.

### ***Quantitative study***

Caregivers were asked to complete the questionnaires deposited in the infirmaries of institutions. Data were analyzed using the statistical analysis software Statistica.

### ***Qualitative study***

The interviews of the second group were fully transcribed. The digitized corpus was processed via software analysis of textual data using IRaMuTeQ (R Interface for

Multidimensional Analysis of Texts and Questionnaires). After analyzing the vocabulary and cutting the corpus, IRaMuTeQ performs « Hierarchical Classification Descending ». It identifies the co-occurrences of the strongest terms between different segments of analyzed interviews and thus extract representative classes of speech from analyzed corpus.

## **RESULTS**

We predicted that (1) psychopathological impact of aggressions of residents against caregivers will not have a traumatic effect and (2) that the impact of these aggressions will affect anxiety and burnout. We will detail below the results of our analyzes for each hypothesis from a quantitative and qualitative point of view.

### **Residents' aggressions against caregivers : a non-traumatic effect ?**

#### ***Quantitative analyses: effects of aggressions on post-traumatic stress***

We did not observe levels of post-traumatic stress of pathological intensity : the average scores were 4,74 ( $\sigma = 6,79$ ) for avoidance ; 6,05 ( $\sigma = 6,57$ ) for intrusion and 4,17 ( $\sigma = 5,27$ ) for hyperarousal. In addition, the analyses indicate that neither the experience nor the type of aggressions have no significant effect on levels of post-traumatic stress. However, the frequency of aggressions has a significant effect on the levels of post-traumatic stress (see table 1) : the more the frequencies increase, the more the levels of intrusion, avoidance and hyperarousal increase.

Table 1

#### ***Qualitative analysis : the experience of violence and aggressiveness of residents***

Lexical analysis of interviews about the experience of aggressions bring to light a description that can be declined on three levels : (1) a description of topographic aspects (« during the distribution [the medications]" « on getting-up » « during washing ») , (2) of temporal aspects (frequent, daily) and (3) of the type of aggression (« punch », « hitting », « physical »).

Table 2

### **State-anxiety and burnout of caregivers in nursing homes : Coping with aggression ?**

#### ***Quantitative analyzes : effects of aggressions on burnout and state-anxiety***

We observe that burnout, state-anxiety and post-traumatic stress are positively correlated. Personal accomplishment, as measured by the MBI, is in turn negatively correlated with the other dimensions of burnout of burnout and state-anxiety levels (see table 3).

Table 3

State-anxiety levels (40,77;  $\sigma = 9.81$ ) are not of a pathological intensity. However, on a general level, the levels of burnout in our sample indicate an average level of burnout, according to the criteria of Maslach (Maslach & Jackson, 1991) : 23,30 ( $\sigma = 13,50$ ) for emotional exhaustion ; 8,07 ( $\sigma = 5,97$ ) for depersonalization ; and 36,58 ( $\sigma = 8,35$ ) for personal accomplishment. Regarding the BMS-10, burnout can not be considered as detrimental, since the level observed in our sample falls below the threshold of 4 (3.23,  $\sigma = 0.92$ ) (Lourel et al, 2007.).

The analyses showed a significant effect of the frequency of aggressions on levels of emotional exhaustion, depersonalization and personal accomplishment, and also on burnout

measured with BMS-10 (see table 4). Conversely, the more the frequency of aggressions increase, the more the personal accomplishment levels decrease. In addition, the experience and the type of aggression (verbal assaults, physical attacks, threatening behaviors) have no significant effect on the different levels of burnout.

Table 4

Regarding anxiety, analyses indicate that the experience of physical attacks ( $F(1, 30) = 8.51, p < .05$ ) and threatening behaviors ( $F(1, 35) = 4.53, p < .05$ ) had a significant impact on state-anxiety levels. Levels of state-anxiety are more intense among caregivers assaulted than their non-assaulted counterparts.

Finally, linear regression analyzes show that the frequency of verbal assaults ( $F(1, 41) = 15.12, p < .05$ ), physical attacks ( $F(1, 30) = 14.00, p < .05$ ), threatening behavior ( $F(1, 35) = 16.94, p < .05$ ) and the total frequency of attacks ( $F(1, 41) = 40.09, p < .05$ ) have an impact on levels of anxiety: state-anxiety levels increase significantly with the frequency of attacks.

### ***Qualitative analysis : responses to aggressions***

Reactions to aggression showed different behavioral and cognitive strategies (understanding, leave, go away, appease, calm down) and, less importantly, an emotional impact, particularly in terms of fear and anger (see table 2). Moreover, IRaMuTeQ software revealed two classes : Class 1, significantly representative of the population of nurses ( $\chi^2 = 26.28, p < .05$ ), and Class 2, significantly representative of the population of housekeepers ( $\chi^2 = 9.47, p < .05$ ) and auxiliaries ( $\chi^2 = 4.02, p < .05$ ). Nurses dealing with aggressions verbalize their reactions significantly differently than the other allied health care workers. Nurses tend to use words highlighting the importance of the team (« team » is associated with « hold on », « lean on

each other ») while auxiliaries tend to evoke their emotions (« anger », « sadness »). In addition, the nurses report having the feeling of being defeated by aggressions (« sense of failure », « unable to do »).

## **DISCUSSION**

### **Subjective experience of aggression : the vulnerabilization of caregivers.**

In our sample, only the frequency of aggressions have an effect on the symptoms of intrusion, avoidance and hyperarousal. It thus seems that it is not the nature but the number of aggressions which, in nursing homes, generate psychotraumatic symptoms. This interesting result can be interpreted as a process of psychological « vulnerabilization » among caregivers (Boudoukha, 2012). This vulnerabilization acts on the characteristic of the event (aggression) which, because of this process, potentiates traumtogenic value (criteria A1 and A2 of DSM IV) and consequently the possible expression of post-traumatic stress symptoms (Bomyea, Risbrough, & Lang, 2012).

In this regard, two mental strategies seem to us to be at work in the interpretation of potentially traumatic aggression amongst caregivers in nursing homes. The first acts as a protective factor: a strategy of normalization and recontextualisation of the event. The second appears to be a vulnerability factor: a feeling of loss of control.

#### ***The normalization-recontextualisation : a protective factor.***

When it occurs in isolation, the act of a resident committing an aggression is initially trivialized and recontextualized. Caregivers mostly show during interviews that they challenge themselves to try to understand the cause of aggressive behaviour. It is therefore a cognitive strategy aimed at controlling the uncertainty and suddenness of aggressive behaviour, criteria (A1) of a traumatic event (Boudoukha et al, 2013). The analysis of the

interviews shows a centering on factual elements explaining aggression (topography of aggression, explanation of aggressive acting in terms of resident's condition etc.). The range of emotional feeling is rather low and centered on anger (there are few evocations of any other emotional impact of the aggression). As a result, the aggressive behaviour no longer has the characteristics of a traumatic event, explaining in part the lack of post-traumatic symptoms.

### ***The feeling of loss of control : a vulnerability factor***

Aggression, when repeated or chronicised (which we measured through the frequency of aggressions) comes to interfere with the strategy of normalization-recontextualization. Indeed, it is no longer possible to trivialize, recontextualize or take a step back from the aggressive behaviour when they are repeated because control of the environment is no longer possible. The repetition of aggressions demonstrate to caregivers that the strategy is not effective, since it does not lead them to no longer being assaulted. Thus, the chronicity reintroduces the criteria of suddenness and uncertainty (criteria of a traumatic event). The repetition of aggressive behaviour generates a vulnerabilization of caregivers, who are then more likely to report post-traumatic symptoms. Beyond the strategies implemented by caregivers, aggressions, whether isolated or repeated, seem have an impact on caregivers in terms of burnout.

## **Psychopathological impact of aggressions : burnout of caregivers**

### ***Little impact of dispositional variables***

The results show that the dispositional variables (age, seniority in the profession, length of service in the institution) have no significant effect on levels of burnout. Regarding age, the results that can be found in the literature on this subject are inconsistent. Some studies find



that it has no effect on burnout (Hazif-Thomas & Thomas, 2011), others show they are positively correlated (Winstanley & Whittington, 2002). In Canouï and Mauranges (2008), they consider that the the younger the person, the more she would be vulnerable to burnout. In general, these results confirm that the relationship with others is at the heart of the phenomenon of burnout (Maslach, 1976). Thus, burnout would develop progressively with degradation of these relationships (here with the resident), regardless of age or seniority.

### ***A significant effect of aggressions on levels of burnout***

Our results show the development of symptoms of burnout among caregivers, regardless of the nature of the aggressions (isolated or frequent). Several variables in the carer-patient relationship seem to intervene in the expression of burnout. This link between aggression and burnout, although it may seem strange, is the subject of numerous studies in recent years. (Boudoukha, Hautekeete, Abdelaoui, Groux, & Garay, 2011 ; Kop, Euwema, & Schaufeli, 1999 ; Truchot & Badré, 2004b). Thus, aggressive behaviour from residents will cause (a) an emotional impact, which although non-traumatic contributes to burnout, (b) a search for social support, which when deficient, promotes burnout and (c) an anxious anticipation of aggressive behaviour.

### ***An emotional impact contributing to burnout***

The analysis of the emotional states of caregivers shows that aggressions are stressful events that are difficult to manage. Indeed, it appears that these situations generate for the auxiliaries and housekeepers nervousness and anger associated with the frustration of not being able to care for them properly. As for nurses, they evoke a sense of failure for not having « managed to make do » or not having « managed to subdue the person ». These attacks would eventually go against an ideal of care and come up against a carer-patient relationship conceived as a helping relationship where support and understanding of one another are important values.

(Mauranges & Canoui, 2001). Thus, the violence of the resident could be interpreted by caregivers as a challenge to their work resulting in demotivation, feeling of worthlessness and a decreased sense of personal efficacy, but also in physical and psychological exhaustion. These symptoms are specific to burnout (Lourel & Gueguen, 2007). Ultimately, it would be the negative tone of this type of the relationship maintained with residents which would be at work in the burnout among caregivers interviewed. The authors also agree that interpersonal conflicts, with the workload, are causal factors of burnout (Boudoukha, 2009 ; Leiter, 1991 ; Maslach, 1976, 1982 ; Maslach & Schaufeli, 1993 ; Swider & Zimmerman, 2010) and caregivers working in nursing homes are no exception to the rule (Duquette, K  rouac, Sandhu, Ducharme, & Saulnier, 1995 ; Tak, Sweeney, Alterman, Baron, & Calvert, 2010). In this way, agressions, considered as the most visible sign of these conflicts, could lead to burnout. Other studies carried out with different populations, make the same observation (Boudoukha et al., 2011 ; Manzoni & Eisner, 2006 ; Truchot & Badr  , 2004 ; Winstanley & Whittington, 2002).

### ***Seeking social support : a protective factor against disinvestment ?***

Faced with these situations, caregivers put in place different kinds of strategies to cope with aggressions. The most important here is the search for social support, enabling them to share the difficult experience and to find advice, reassurance and support. These strategies allow them to more or less control the aggression and regulate its negative impact. However, if these situations are repeated and become part of everyday life, caregivers may become exhausted trying to cope with them permanently. Indeed, our results show, once again, a significant effect of the frequency of aggressions on levels of burnout, and not of their nature. So it seems that the impact of aggressions on burnout lies not in their more or less violent nature, but in their chronicity. Caregivers would be unable to adapt to an intense and

continuous emotional stress, whatever strategies they attempt to establish. Thus, the chronicity of these difficult experiences generates an increase in emotional exhaustion. Considered central in the development of burnout, it would generate an increase in levels of depersonalization : by adopting a distant and cynical attitude toward the resident, caregivers would attempt to disinvest in this relationship which is seen as too « imprisoning » in order to protect and defend themselves against this emotional exhaustion. Finally, this process seems to lead to a feeling of inadequacy and inefficiency of caregivers resulting in a decrease in the score on the scale of personal accomplishment.

### ***The anxious anticipation of an aggressive acting***

Aggressions, that caregivers are victims of, seem to generate other psychopathological consequences, particularly an increase in state-anxiety levels, a sign of anxious anticipation of aggressive behaviour (Gardner, 1992). Indeed, our results indicate that frequent confrontation with aggressions increases state-anxiety levels of caregivers. On the one hand, the caregiver can be constantly alert and thus develop anxiety symptoms, in the face of aggressions which are uncontrollable and unpredictable by nature. In addition, the more the caregiver is facing such stressful events, the more he will develop hypervigilance toward threatening stimuli in his environment, which will influence the way he perceive the situation (Boudoukha, Hautekeete, Hautekeete-Sence, Cousin, & Calesse, 2009 ; Chen et al., 2005). Some of the situations encountered later could then take on a disproportionate importance. Furthermore, our results indicate that levels of burnout are positively correlated with levels of state-anxiety. It is known that strong emotional exhaustion leads to increased anxiety during stressful situations, weakening the capacity of the individual to cope with anxiety and regulate it (Shirom & Ezrachi, 2003). Ultimately, the analysis shows us an important link between the

three clinical entities studied. Thus, the impact of aggressions on psychopathological state of caregivers seems to reflect a complex clinical picture.

## **CONCLUSION**

The suffering of caregivers is a phenomenon that is increasingly recognised. Situations of aggression from residents reinforce an already high level of stress due to the many constraints of working in an institution. Protective factors allow caregivers to have a sense of control of assaults, minimizing its impact for psychological harm. But, these factors can be undermined by the chronicization of assaults. These conflictual relationships will lead to numerous symptoms that can have particularly deleterious effects for the caregiver. However, we must remain cautious because our research has some limitations mainly due to a limited number of participants. It would be interesting for future studies to seek to investigate other clinical aspects of subjective experience such as emotions and cognitions generated by the aggressions in order to understand how they generate different symptoms. All the research should allow for a better understanding of this suffering and the vulnerability factors, to develop prevention models (Awa, Plaumann, & Walter, 2010 ; Maslach & Goldberg, 1998) and individualized or group psychotherapy treatment intended to best help caregivers in psychological suffering (Boudoukha, 2009, 2012).

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Table 1 : Relationships between frequency of aggressions and scores on scales measuring symptoms of post-traumatic stress

	Frequency of verbal assaults	Frequency of physical attacks	Frequency of threatening behaviors	Total frequency
Intrusion	F(1 ;41)=9,04*	F(1 ;30)=10,07*	F(1 ;35)=12,10*	F(1 ;41)=15,86*
Avoidance	F(1 ;41)=6,06*	F(1 ;30)=6,90*	F(1 ;35)=11,96*	F(1 ;41)=8,70*
Hyperarousal	F(1 ;41)=9,53*	F(1 ;30)=8,73*	F(1 ;35)=19,00*	F(1 ;41)=13,90*

F marked with an asterisk \* indicates that  $p < .05$

Table 2 : Words most frequently used by caregivers about their reactions to aggressions  
(occurrences)

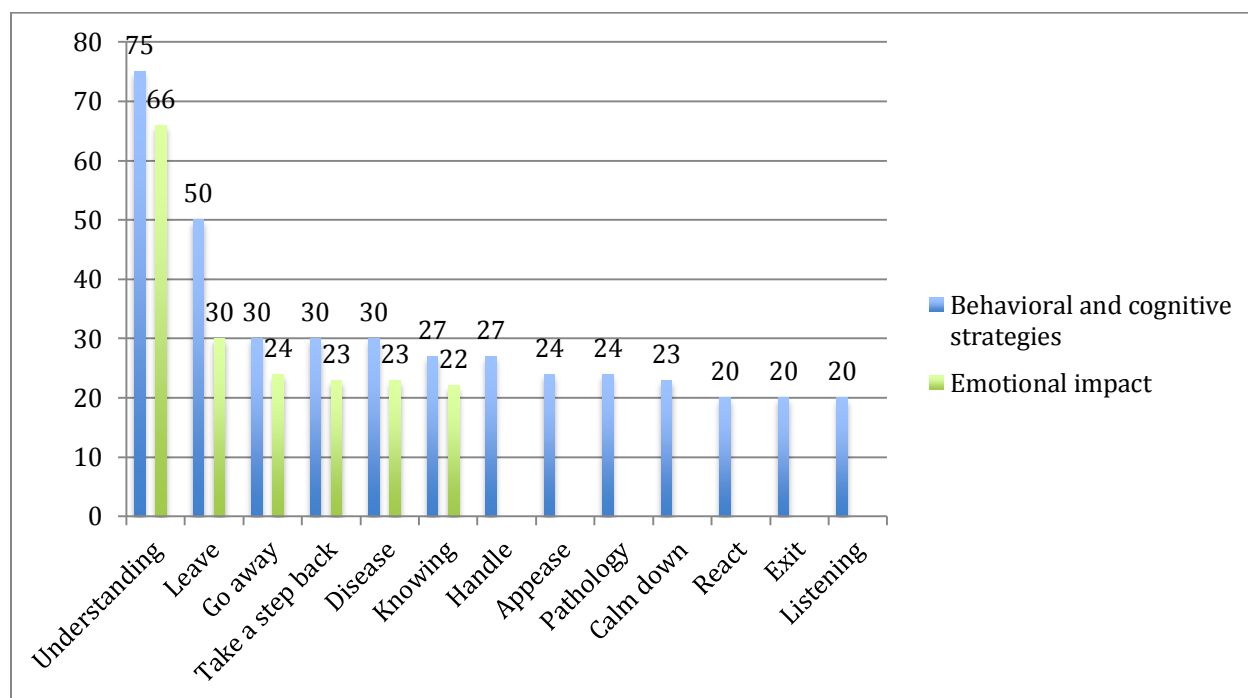


Table 3 : Correlation coefficients between the scales

	1.	2.	3.	4.	5.	6.	7.	8.
1.		$r=0,62^*$	$r=-0,43^*$	$r=0,79^*$	$r=0,76^*$	$r=0,64^*$	$r=0,49^*$	$r=0,64^*$
2.	$r=0,62^*$		$r=-0,72^*$	$r=0,48^*$	$r=0,65^*$	$r=0,30$	$r=0,29$	$r=0,33^*$
3.	$r=-0,43^*$	$r=-0,72^*$		$r=-0,24^*$	$r=-0,53^*$	$r=-0,01$	$r=-0,01$	$r=-0,10$
4.	$r=0,79^*$	$r=0,48^*$	$r=-0,24^*$		$r=0,71^*$	$r=0,54^*$	$r=0,76^*$	$r=0,68^*$
5.	$r=0,76^*$	$r=0,65^*$	$r=-0,53^*$	$r=0,71^*$		$r=0,61^*$	$r=0,51^*$	$r=0,64^*$
6.	$r=0,64^*$	$r=0,30$	$r=-0,01$	$r=0,54^*$	$r=0,61^*$		$r=0,83^*$	$r=0,94^*$
7.	$r=0,49^*$	$r=0,29$	$r=-0,01$	$r=0,76^*$	$r=0,51^*$	$r=0,83^*$		$r=0,86^*$
8.	$r=0,64^*$	$r=0,33^*$	$r=-0,10$	$r=0,68^*$	$r=0,64^*$	$r=0,94^*$	$r=0,86^*$	

R marked with an asterisk \* indicates that  $p < .05$

1. = Emotional exhaustion / 2. = Depersonalization / 3. = Personal accomplishment / 4. = BMS-10 / 5. = State-anxiety / 6. = Intrusion / 7. = Avoidance / 8. = Hyperarousal

Table 4 : Relationships between frequency of aggressions and scores on scales measuring burnout

	Frequency of verbal assaults	Frequency of physical attacks	Frequency of threatening behaviors	Total frequency
Emotional exhaustion	$F_{(1;41)}=18,97^*$	$F_{(1;30)}=24,83^*$	$F_{(1;35)}=14,81^*$	$F_{(1;41)}=30,49^*$
Depersonalization	$F_{(1;41)}=10,37^*$	$F_{(1;30)}=19,36^*$	$F_{(1;35)}=10,07^*$	$F_{(1;41)}=18,65^*$
Accomplishment	$F_{(1;41)}=4,50^*$	$F_{(1;30)}=5,49^*$	$F_{(1;35)}=4,44^*$	$F_{(1;41)}=8,01^*$
BMS-10	$F_{(1;41)}=4,90^*$	$F_{(1;30)}=11,24^*$	$F_{(1;35)}=6,60^*$	$F_{(1;41)}=20,30^*$

F marked with an asterisk \* indicates that  $p < .05$