



**HAL**  
open science

## **Prevalence and impact of patient suicide in psychiatrists: Results from a national French web-based survey**

Edouard Leaune, R. Allali, Jean-Yves Rotgé, Louis Simon, Maxime Vieux,  
Philippe Fossati, Raphael Gaillard, D. Gourion, Marc Masson, Emilie Olié, et  
al.

### ► To cite this version:

Edouard Leaune, R. Allali, Jean-Yves Rotgé, Louis Simon, Maxime Vieux, et al.. Prevalence and impact of patient suicide in psychiatrists: Results from a national French web-based survey. *L'Encéphale*, 2021, 47 (6), pp.507-513. 10.1016/j.encep.2020.11.011 . hal-03660637

**HAL Id: hal-03660637**

**<https://hal.science/hal-03660637>**

Submitted on 5 Jan 2024

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial 4.0 International License

# Prevalence and impact of patient suicide in psychiatrists: results from a national French web-based survey

---

## *Prévalence et impact du suicide de patients chez les psychiatres : résultats d'une étude française en ligne*

**Edouard Leaune<sup>1,2\*</sup>, Raphael Allali<sup>3</sup>, Jean-Yves Rotgé<sup>4,5</sup>, Louis Simon<sup>1</sup>,  
Maxime Vieux<sup>1</sup>, Philippe Fossati<sup>4,5</sup>, Raphaël Gaillard<sup>6</sup>, David Gourion<sup>7</sup>,  
Marc Masson<sup>8</sup>, Emile Olié<sup>9</sup>, Guillaume Vaiva<sup>10,11</sup>**

<sup>1</sup> Centre Hospitalier le Vinatier, Bron, France

<sup>2</sup> INSERM, U1028; CNRS, UMR5292; Lyon Neuroscience Research Center, Psychiatric Disorders: from Resistance to Response – PSYR2 Team, Lyon, F-69000, France

<sup>3</sup> CHU Paris Seine Saint Denis, Hôpital Avicenne, Bobigny, France

<sup>4</sup> AP-HP, Service de Psychiatrie d'Adultes, APHP-Sorbonne, Paris, France

<sup>5</sup> Inserm U 1127, CNRS UMR 7225, Sorbonne- Université, ICM-A-IHU, "Control-Interoception - Attention.

<sup>6</sup> Université de Paris, GHU Psychiatrie et neurosciences, Paris, France, Président de la sous-section 49-03 du Conseil National des Universités (CNU)

<sup>7</sup> Psychiatre libéral, Paris ; HEC Paris (Jouy-en-Josas), France

<sup>8</sup> Nightingale Hospitals-Paris, Clinique du Château de Garches, France ; SHU, GHU Psychiatrie et neurosciences, Paris, France

<sup>9</sup> Département of Emergency Psychiatry and Acute Care, Lapeyronie Hospital, PSNREC, Univ Montpellier, INSERM, CHU de Montpellier, Montpellier, France

<sup>10</sup> Univ. Lille, Inserm, CHU Lille, U1172 - LilNCog - Lille Neuroscience & Cognition, F-59000 Lille, France

<sup>11</sup> Centre National de Ressources & Résilience pour les psychotraumatismes (Cn2r Lille Paris), F-59000 Lille, France

**\* Corresponding author:** Edouard LEAUNE

CH le Vinatier, 95 boulevard Pinel, BP 300 39 - 69 678 Bron cedex, France

e-mail : [edouard.leaune@ch-le-vinatier.fr](mailto:edouard.leaune@ch-le-vinatier.fr)

## ABSTRACT

**Background:** Patient suicide (PS) is known to be a frequent and challenging occupational hazard for mental health professionals. No study previously explored the prevalence and impact of PS in a large sample of French psychiatrists. **Method:** A national Web-based survey was performed between September and December 2019 to assess a) the prevalence of the exposure to PS, b) the emotional, traumatic and professional impacts of PS, and c) the perceived support in the aftermath of PS in French psychiatrists. Participants were contacted through email to answer the online 62-item questionnaire, including a measure of traumatic impact through the *Impact of Event Scale-Revised*. Emotional and professional impacts and perceived support were assessed through dedicated items. **Results:** A total of 764 psychiatrists fully completed the survey. Of them, 87.3% reported an exposure to PS and 13.7% reported PTSD symptoms afterward. Guilt, sadness and shock were the most frequent emotions. 15.1% of exposed psychiatrists have temporarily considered changing their career path. The most emotionally distressing PS occurred during their ten first years of practice or during residency. A total of 37.1% of respondents felt unsupported and 50.4% reported that no team-meeting had been organized in the aftermath. The feeling of responsibility for the death was strongly associated with negative impacts. **Conclusion:** Our results entail considerations to prevent negative mental health outcomes in psychiatrists after PS. Notably, our results advocate for the implementation of educational programs during psychiatric residency and postvention programs in healthcare settings to effectively help psychiatrists in dealing with PS.

**Keywords:** Patient suicide; psychiatrists; postvention; adverse events; second victims; PTSD; suicide survivors

## RESUME

**Contexte :** L'exposition aux suicides de patients est une expérience fréquente et difficile pour les professionnels de la santé mentale, marquée par un potentiel impact traumatique, émotionnel et professionnel qui peut placer les professionnels exposés en grande vulnérabilité. Pour autant, aucune étude n'a jusqu'alors évalué la prévalence et l'impact du suicide d'un patient chez les psychiatres français. **Méthode :** Une enquête nationale a été réalisée entre septembre et décembre 2019 afin d'évaluer chez les psychiatres français a) la prévalence de l'exposition aux suicides de patients, b) les impacts traumatiques, émotionnels et professionnels de l'exposition au suicide d'un patient, et c) le soutien reçu dans l'après-coup du suicide d'un patient. Les participants ont été contactés par mail pour répondre à un questionnaire en ligne de 62 items, incluant une mesure de l'impact traumatique via l'*Impact of Event Scale*. L'impact émotionnel et professionnel, ainsi que le soutien perçu, étaient évalués à l'aide d'échelles dédiées non validées. **Résultats :** Un total de 764 psychiatres a entièrement rempli le questionnaire. 87,3% d'entre eux avaient été exposés au suicide d'un patient au cours de leur carrière et 13,7% rapportaient des symptômes de stress post-traumatique dans les suites de l'exposition. La culpabilité, la tristesse et le sentiment de choc étaient les émotions les plus fréquemment rapportées. Sur le plan professionnel, 15,1% des psychiatres exposés au suicide d'un patient ont envisagé de changer de carrière. Les suicides de patients les plus impactants sur le plan émotionnel étaient ceux survenant pendant l'internat ou pendant les dix premières années d'exercice. 37,1% des participants n'avaient reçu aucun soutien après l'exposition au suicide du patient et 50,4% rapportaient qu'aucune réunion n'avaient été mise en place dans les suites de l'évènement. Le sentiment de responsabilité vis-à-vis du suicide était le prédicteur le plus important pour l'impact négatif du suicide d'un patient. **Conclusion :** Nos résultats démontrent l'importante prévalence de l'exposition aux suicides de patients chez les psychiatres français, associée à un impact important sur le plan émotionnel, traumatique et professionnel. Nos résultats soulignent l'importance d'implémenter des programmes de formation au cours des

études et de postvention en milieu professionnel pour soutenir les psychiatres exposés au suicide d'un patient.

**Mots-clés** : suicide de patient ; psychiatre ; postvention ; événements indésirables ; secondes victimes ; symptômes de stress post-traumatique ; survivants de suicide

## INTRODUCTION

According to numerous studies based on psychological autopsies [1], 91% (95% CI 81-98%) of people who die by suicide suffered from mental disorders. Mental health professionals, especially psychiatrists, are thus highly prone to encounter patient suicide (PS) during their career [2,3]. Previous surveys for example reported prevalence of exposure to PS ranging from 51% to 91.5% in psychiatrists worldwide [2-6]. PS is known to be a particularly challenging and distressing occupational hazard for mental health professionals [2, 4-6], so that the terms “suicide survivors” [7] or “second victims” [8] are used to designate the professionals affected by a PS. Previous studies indeed identified high-level of psychological and professional distress in psychiatrists in the aftermath of PS, including high prevalence of traumatic and emotional reactions and impaired feelings of self-confidence and competence [2-6].

However, while the suicide rates in France is higher than in many other high-income countries [9], no study previously explored the prevalence and impact of PS in a sample of French psychiatrists. A recent study [10] assessed the impact of PS on French psychiatric trainees, reporting that 43.2% of them were exposed to PS during their residency, without evaluating the impact on senior psychiatrists. Of those exposed, 7.2% exhibited clinically relevant symptoms of post-traumatic stress disorder and 11.2% high level of emotional impact. A total of 44.8% reported a negative professional impact and 25.6% received no support in the aftermath. The aim of the current study was thus to assess a) the prevalence of the exposure to PS, b) the emotional, traumatic and professional impacts PS, and c) the perceived support in the aftermath of PS in French psychiatrists.

## METHOD

### Survey

The survey followed the CHERRIES statement for online surveys [11]. Based on two literature reviews [2,12], a 62-item comprehensive questionnaire was constructed by a pluri-professional team. The online questionnaire used in this study was comprehensively described elsewhere [10]. This survey was offered to French psychiatrists, without exclusion criteria, between September and December 2019. The online questionnaire was available on the website of the *Encéphale online* (<https://www.encephale.com/Actualites/2019/Enquete-l-impact-du-suicide-des-patients-sur-les-psychiatres>) and the weblink was sent through a national email listing and social networks to French psychiatrists. The survey completion time ranged from 5 to 15 minutes.

### Exposure

We assessed the prevalence of exposure to PS through a declarative answer of respondents to the following question “*have you been exposed to patient suicide during your career?*”. The number of exposures was assessed. Participants were asked to detail the conditions of the most distressing exposure, including the moment of the exposure in the career (during residency, first ten years of practice between ten and twenty years of practice, after more than twenty years of practice) the characteristics of the patient (age, gender, diagnosis, inpatient or outpatient), the conditions of the PS (localization of the event, duration of clinical follow-up, exposure to the corpse, use of resuscitation techniques), the characteristics of the physician-patient relationship (therapeutic alliance, time of care period, place of care), and the context of the exposure (exposure during clinical follow-up or afterwards, ambulatory or inpatient care, exposure to the corpse, police inquiry). The quality of the therapeutic alliance and the feeling of responsibility for the death were assessed through analog visual scales.

### Variables, impacts and support

Sociodemographic characteristics (age, gender, location, duration of practice as psychiatrist) were recorded. For those who were exposed to PS, the traumatic impact was measured through

the French version of the *Impact of Event Scale-Revised* (IES-R) [13-15]. The IES-R is a 22-item self-report questionnaire assessing intrusion, avoidance and hyperarousal symptoms. Each item is rated on a 5-point scale from 0 (*not at all*) to 4 (*extremely*). According to previous literature, a threshold of 24/88 to indicate a significant traumatic reaction [16] and a threshold of 34 for PTSD [17] were retained. An emotional score was obtained through a non-validated scale considering six main emotions previously reported in the literature (anger, denial, guilt, sadness, shame and shock) [18,19]. Each emotion was scored on a 6-point Likert-scale from 0 (*not at all*) to 5 (*extremely*), for a total score ranging from 0 to 30. The professional impact was assessed through four non-validated questions on the modifications of practice and the will to change career path. Regarding the self-reported modifications in professional practice, a fear and avoidance of suicidal patients, an increased tendency to hospitalize patients, a fear of granting passes for patients and a prolonged duration of hospitalization were considered negative professional impacts. A better assessment of suicidal ideation in patients, an increased tendency to ask advice to colleagues, a better trackability of information in patients' files and an interest in suicide prevention were considered positive professional impacts. The population of the most impacted psychiatrists was analyzed by identifying those who reported in the same time an IES-R>24, an ES>18 and a negative professional impact. Those who reported suicidal ideation and the intent to change their career path were also considered as being severely impacted. A descriptive analysis of their sociodemographic and professional characteristics was performed.

The perceived support was evaluated through a non-validated 5-item questionnaire assessing the types of support (informal from peers, colleagues or relatives, formal from superiors or the institution) and the quality of the support.

#### [Statistical analysis](#)

Data manipulation and analyses were performed using JASP software. Qualitative variables were summarized using numbers and percentages, and quantitative variables were calculated

using means and standard deviations. Comparisons were made with a  $\chi^2$  test or Fisher's test for qualitative variables, depending on the applicable conditions. Quantitative variables were analyzed with the appropriate test, depending on the application conditions. To assess the role of independent variables in moderating the association between the exposure to PS and the three dimensions of impact, we measured the Pearson's r correlation coefficients using the following dependent variables: (a) traumatic reaction (score at IES-R); (b) emotional impact (score at emotional score); and (c) negative professional impact (NPI) (*e.g.*, the presence of at least one item indicating negative professional impact). Then, we conducted a multivariate linear regression for non-dichotomous dependent variables (*e.g.*, IES-R and emotional scores) and a multivariate logistic regression for negative professional impact to examine the role of independent variables. The independent variables were selected based on the univariate analysis results. Variables with  $p < 0.5$  in the univariate analysis were included in the multivariate analyses. A threshold alpha of 0.05 was considered statistically significant; all tests were two-sided.

#### [Ethical approval](#)

The study received ethical approval from The Ethics Committee of The Hospices Civils de Lyon (n° 20/37).

## RESULTS

#### [Participants](#)

A total of 795 psychiatrists participated in the survey, of which 764 fully completed the questionnaire. The mean age of respondents was 44.5 (SD= 12.4). Most were women, practicing in public settings. The sample included psychiatrists from all French regions. The characteristics of participants are given in Table 1.

PLEASE INSERT TABLE 1 ABOUT HERE

#### [Exposure](#)

Of the participants, 87.3% reported an exposure to PS during their career (Table 1). The majority reported exposure to several PS and indicated that their first exposure to PS occurred during their residency or the ten first years of their career (Table 1). The feeling of responsibility for the death was significantly higher in early career psychiatrists ( $p= 0.042$ ).

Most of the psychiatrists were not exposed to the corpse (87.9%) and were involved in informing the family (60.0%). A minority went to the funerals (5.4%). Almost one in five was involved in an administrative or police inquiry (17.7%).

Most of the patients were male, aged 36 to 65 years, and were mainly suffering from mood or personality disorders. The most frequent methods of suicide were hanging and jumping. PS mostly occurred at home or in the hospital (Table 2).

PLEASE INSERT TABLE 2 ABOUT HERE

#### [Traumatic impact](#)

The participants reported that the most distressing PS occurred during their ten first years of practice (Table 3). The mean IES-R score was 19.2 (SD = 15.9). A total of 23.6% reported an IES-R>24, and 13.7% an IES-R>34.

PLEASE INSERT TABLE 3 ABOUT HERE

#### [Emotional impact](#)

The mean total emotional score was 11.25 (SD = 6.14). Sadness (mean score = 2.87; SD= 1.80), guilt (mean score = 2.86; SD= 1.86), and shock (mean score = 2.06, SD= 1.64) were the most frequent emotions reported. Most of psychiatrists did not engage in a personal psychotherapy (97.0%) and did not consummate anxiolytics (96.6%) after PS, while 2.8% reported suicidal ideation. Those who reported suicidal ideation showed the highest IES-R and emotional scores ( $p<0.001$ ).

#### [Professional impact](#)

A total of 81.9% of the respondents reported modifications in their practice. The professional impact was mostly reported as positive, including an increased interest for suicide prevention

(39.7%), a better assessment of suicidal risk in patient (37.7%) and a better trackability of suicidal risk in patients' files (30.4%). The negative professional impact included an increased tendency to hospitalize patients (19.3%), the fear of granting passes (16.6%) and the fear and avoidance of suicidal patients (13.3%). 15.1% of exposed psychiatrists considered changing their career path.

#### Most impacted psychiatrists

A total of 33 psychiatrists were identified as the most impacted. They were predominantly women (63.6%), working in public hospitals (75.8%) and exposed to PS during residency or early career (84.8%). Almost one in five (18.2%) of them reported suicidal ideation in the aftermath of PS. A great majority had a last contact with the patient on the day of PS (84.8%), 66.7% contacted the family and 32.3% reported no support in the aftermath of the PS.

All the participants who reported suicidal ideation (n= 19) also considered to change their career path. The association between the intent to changer career path after PS and suicidal ideation was significant (p= 0.001).

#### Moderating factors

The association between independent variables and each dimension of impact are given in Table 4 for the univariate analysis. Table 5 shows the results of the linear regression for emotional and traumatic impact. No significant association was found between the diagnosis and the impact of PS on psychiatrists.

PLEASE INSERT TABLE 4 AND 5 ABOUT HERE

In the multivariate analysis, the feeling of responsibility for the death was significantly associated with the three dimensions of negative impact (B= 0.037; SE= 0.009; p<0.001 for professional impact). The last contact with the patient on the day of suicide was associated with higher IES-R score. The first exposure during early career (*e.g.*, residency or ten first years of practice) and younger age were associated with higher emotional score. Regarding professional

impact, the exposure during late career was significantly associated with negative impact (B= -0.901; SE= 0.421; p= 0.032).

Those who felt unprepared to encounter PS were at higher risk for negative impact in the univariate but not in the multivariate analysis.

#### [Perceived support](#)

A total of 37.1% of respondents felt unsupported and 50.4% reported that no team-meeting had been organized in the aftermath. Support from colleagues was the most common (67.3%), especially from other psychiatrists (41.2%). Perceived support was reported as being of good quality by most respondents (6.0/10). Unsupported psychiatrists were not more prone to report higher scores for negative impact (Table 4).

#### [Unexposed psychiatrists](#)

A minority of psychiatrists (11.3%) was not exposed to PS. The unexposed psychiatrists were younger than those who were exposed (mean age= 36.4; SD= 10.7) and were mostly women (73.2%) in their five first years of practice (68.0%). Most of them (63.2%) reported that they felt unprepared to encounter PS.

## DISCUSSION

### [Summary of results](#)

To the best of our knowledge, we performed the largest survey to date on the impact of PS on psychiatrists [2-6, 20-22]. Our results show that the exposure to PS is highly prevalent among French psychiatrists. A substantial part of the exposed psychiatrists exhibits high level of emotional, traumatic and/or professional impact in the aftermath. The feeling of responsibility for the death was significantly and strongly associated with the three dimensions of negative impact. A substantial part of the participants reported that they received no support and that no team meeting was performed after PS. Interestingly, we reported that encountering PS may become a beneficial and learning experience for psychiatrists, notably through positive modifications of professional practices.

## [Interpretation of results](#)

The prevalence of exposure to PS measured in our study is slightly higher than those reported in previous studies on the topic [2,3,5,6, 20-22]. For example, Alexander et al. [20] found a prevalence rate of 68% in a sample of 247 Scottish psychiatrists, while Kelleher and Campbell [21] reported that 80% of their Irish sample of 74 psychiatrists encountered PS. In an US sample of 90 psychiatrists, Erlich et al. [22] reported a 63% prevalence rate of exposure to PS. The higher prevalence measured in our survey may be explained by the higher suicide rates in France compared to other countries [9]. Consistent with this hypothesis, a study on Belgian psychiatrists [4] found a higher prevalence of PS (91.5%), while the suicide rate is higher in Belgium than in France [9]. A selection bias of psychiatrists who encountered PS may also partly explain the result on the prevalence of PS in our sample. However, the prevalence of 42.3% of psychiatrists in our sample reporting an exposure to PS during their training period is consistent with previous studies [10,12] and does not argue for a selection bias. Compared to the total number of French psychiatrists, our sample of participants comprised more female (60% versus 52%), public practitioners (63% versus 59%) and younger psychiatrists (mean age = 44.5 versus 52.0). This may have significantly impeded the representativeness of our sample and of our results. For example, most of the respondents in our survey work in public inpatient facilities, where suicide rates are known to be remarkably high [23] so that the prevalence of the exposure to PS may have been overestimated.

Consistent with previous studies [2-6, 20-22], we found a high emotional, traumatic and professional impact of PS on psychiatrists, especially the youngest ones. The high level of post-traumatic reactions and willingness to change career path observed in our sample after PS are notably worrying phenomena. Moreover, we found that the great majority of the participants had been exposed to PS in early career, especially during residency, and that this early exposure was emotionally particularly distressing. This result is consistent with previous studies which found that PS occurring during psychiatric training may be more distressing [12], and indicate the need to provide effective and adequate support to early career psychiatrists exposed to PS.

Youngest psychiatrists may indeed be confronted to additional stressors (personal and professional evolution, lack of experience, partial knowledge on the available support) which may induce a greater vulnerability toward the impact of medical adverse events such as PS [12]. We also found that the feelings of responsibility for the death were more prevalent in younger psychiatrists and were strongly associated with negative impact after PS. This result is consistent with a systematic review on the effects of medical adverse events on healthcare professional, in which feelings of responsibility were found to be highly correlated with the “second victim” phenomenon [24]. Feelings of responsibility are also prevalent in the grieving process of people bereaved by suicide and may foster complicated grief and impede help-seeking and post-traumatic growth [25].

The lack of preparedness to manage PS was associated with negative impacts in the univariate but not in the multivariate analysis in our study. In the study of Castelli-Dransart et al. [26], mental health professionals who felt prepared to encounter PS reported lower IES scores regardless of the support received in the aftermath. At the same time, a majority of the unexposed psychiatrists of our sample reported that they felt unprepared to encounter and manage PS. These results advocate for the need to implement educational programs at the entry of psychiatric residency to enhance the preparedness of residents and early career psychiatrists to face and manage PS, and to enhance their willingness to self-help and help an affected colleague. A small number of previous studies [27-29] showed the effectiveness of educational programs to increase the feelings of preparedness to manage PS and the willingness to help and support colleagues affected by a PS. Information about PS, its prevalence and impacts should be taught when starting psychiatric training. Practical guidance on how to manage PS and how to support a colleague affected by PS would also be helpful. However, the existing literature on the effectiveness of such prevention programs did not evaluate their long-term impact when participants are effectively exposed to PS as residents or senior psychiatrists. Further studies are thus needed to better elucidate the long-term effectiveness of prevention programs dedicated

to the exposure to PS. Interestingly, younger psychiatrists reported less negative professional impact than more seasoned ones in the aftermath, indicating that encountering PS can serve as a beneficial and learning experience during early career.

When looking at the support provided in the aftermath, it is notable that informal support from peers and colleagues was the most common form of help received by the participants to cope with PS. Consistent with previous studies [2,3,10,12,30], we found a lack of institutional support in the aftermath of PS. However, we found no significant association between the lack of perceived support and higher levels of negative impact in the univariate analysis. This result questions the best means to effectively help exposed psychiatrists in coping with PS. According to previous studies [31,32], implementing protocolized guidelines, programs and teams aiming at providing support in the aftermath of PS for mental health professionals, including psychiatrists, may be beneficial. However, evidence-based postvention strategies having demonstrated their effectiveness in reducing the psychological and psychological impact after PS are lacking [32]. Nonetheless, our results entail considerations for the support needed to prevent negative mental health outcomes in psychiatrists after PS. First, guidelines encouraging and guiding peer-support in the aftermath of PS are needed. We propose in the Figure 1 eleven recommendations to effectively help and support a colleague affected by a PS.

PLEASE INSERT FIGURE 1 ABOUT HERE

Second, postvention programs should be implemented and evaluated for psychiatrists and, more broadly, mental health professionals and teams exposed to PS. These programs should focus on and encourage the early emotional first aid provided by colleagues and superiors to the most affected professionals. The impact of team-based interventions in exposed settings need to be properly evaluated in further studies [32]. Interestingly, when considering the three domains of impact, we found the existence of a particularly vulnerable group showing high levels of emotional distress associated with a substantial traumatic and professional impact. Moreover, this highly affected group is also more prone to exhibit suicidal ideation in the aftermath of PS.

This result highlights the need to promote early detection of the most affected professionals after PS in those programs, to provide them an effective and adaptive intervention. Buffering the feelings of responsibility for the suicide in exposed professionals must be on the key target of such postvention programs to prevent post-traumatic and negative emotional reactions. Mortality and Morbidity Conferences have also been reported to be helpful in the aftermath of PS for psychiatric trainees, as they offer an effective mean to buffer the feelings of individual responsibility for the death by allowing an in-depth understanding of the processes which led to the suicide [12]. However, to date, no study evaluated their impact on psychiatrists after PS.

### Limitations

Our study has several limitations. First, the sample of participants may not be representative of all French psychiatrists. Indeed, the total number of psychiatrists is estimated to be about 15,388 [33] in France, so that only about 5% of the French psychiatrists, mostly from the public sector, participated in our survey. Notably, a selection bias of exposed psychiatrists has to be considered regarding the generalizability of our conclusions. Moreover, psychiatrists who effectively changed their career path due to the exposure to PS did not participate in our survey. No study previously examined this specific population and further studies are needed to better evaluate this population. However, the sample of participants was large and previous studies on the impact of PS on psychiatrists included smaller samples of participants [4-6,20-22]. Second, the cross-sectional design of the study limits the ability to make any causal inference. Notably, the memory bias related to the retrospective design of our survey has to be considered, as a substantial part of the respondents reported their reactions to a PS that occurred several years ago. However, the large sample of respondents to our survey allowed us to collect comprehensive and relevant data on the impact of PS on psychiatrists. Third, the use of non-validated questionnaires to assess emotional impact and perceived support limits the relevance of our results. However, this choice was made to improve the acceptability of the survey, as validated scales on emotional state or professional support are time consuming to complete.

## CONCLUSION

Based on the largest web-based survey to date on psychiatrists, we demonstrated that the exposure to PS is highly prevalent in French psychiatrists and leads to significant emotional, traumatic and professional impacts. The deleterious role of the feelings of responsibility for the death indicates the need to develop prevention and postvention programs dedicated to buffering the negative effects of PS and foster post-traumatic growth in psychiatrists. If correctly addressed, the aftermath of PS can indeed shape a beneficial professional experience.

## Conflits d'intérêt

E. L. Honoraires de Janssen et Lundbeck

D. G. Conseil et interventions ponctuelles pour les laboratoires Lundbeck et Janssen

P. F. Honoraires de Lundbeck et Janssen

M. M. Otsuka, Lundbeck, Shire

R. G. Honoraires de Janssen, Lundbeck, Roche, Takeda. Soutien à la recherche de Servier et Sisley

E. O. Financement de congrès et déplacements: Astra, Janssen, Servier, Lilly, Otsuka-BMS, Lundbeck.

Aide financière à la recherche : Servier, Astra, Institut Upsa de la douleur. Conseils scientifiques : Janssen

G. V. Activité de conseil chez Janssen

R. A., J-Y. R., M. V. et L. S. déclarent ne pas avoir de conflits d'intérêts.

## Remerciements

Les auteurs tiennent à remercier le Comité Scientifique de l'Encéphale et Europa Group pour avoir permis la réalisation de l'enquête.

## REFERENCES

- [1] - Cavanagh JT, Carson AJ, Sharpe M, Lawrie SM. Psychological autopsy studies of suicide: a systematic review. *Psychol Med* 2003;33:395-405.
- [2] - Séguin M, Bordeleau V, Drouin MS, Castelli Dransart DA, Giasson F. Professionals' reactions following a patient's suicide: review and future investigation. *Arch Suicide Res* 2014;18:340–362.

- [3] - Castelli Dransart DA, Treven M, Grad OT, Andriessen K. Impact of client suicide on health and mental health professionals. In Andriessen, Krysinska K, Grad OT, Postvention in action: The international handbook of suicide bereavement support. Hogrefe Publishing. 2017;245–254.
- [4] - Rothes IA, Scheerder G, Van Audenhove C, Henriques MR. Patient suicide: the experience of Flemish psychiatrists. *Suicide Life Threat Behav* 2013;43:379–394.
- [5] - Gibbons R, Brand F, Carbonnier A, et al. Effects of patient suicide on psychiatrists: survey of experiences and support required. *Br J Psych* 2019;43:236-241.
- [6] - Greenberg D, Shefler G. Patient suicide. *Isr J Psychiatry Relat Sci* 2014;51:193-8.
- [7] - Cerel J, McIntosh JL, Neimeyer RA, Maple M, Marshall D. The continuum of "survivorship": definitional issues in the aftermath of suicide. *Suicide Life Threat Behav* 2014;44:591-600.
- [8] - Farberow NL. The mental health professional as suicide survivor. *Clin Neuropsychiatry* 2005;2:13–20.
- [9] - Bremberg SG. Suicide rates in European OECD nations converged during the period 1990-2010. *Soc Psych Psychiatric Epidemiol* 2017;52:559–562
- [10] - Leaune E, Durif-Bruckert C, Noelle H, et al. Impact of exposure to severe suicidal behaviours in patients during psychiatric training: An online French survey. *Early Interv Psychiatry* 2019 Dec. DOI: 10.1111/eip.12923.
- [11] - Eysenbach G. Improving the quality of web surveys: The checklist for reporting results of internet E-surveys (CHERRIES). *JMIR* 2004;6:e34.
- [12] - Leaune E, Ravella N, Vieux M, Poulet E, Chauliac N, Terra J-L. Encountering patient suicide during psychiatric training: an integrative, systematic review. *Harv Rev Psychiatry* 2019;27:141-149.
- [13] - Horowitz M, Wilner N, Alvarez W. Impact of Event Scale: a measure of subjective stress. *Psychosom Med* 1979;41:209–218.
- [14] - Weiss DS, Marmar CR (1997). The impact of event scale – revised. In: Wilson JP, Keane TM, editors. *Assessing psychological trauma and PTSD*. New York: Guilford Press, 399–411.
- [15] - Brunet A, St-Hilaire A, Jehel L, King S. Validation of a French version of the impact of event scale-revised. *Can J Psychiatry* 2003;48:56-61.
- [16] - Asukai N, Kato H, Kawamura N, et al. Reliability and validity of the Japanese-language version of the impact of event scale-revised (IES-R-J): four studies of different traumatic events. *J Nerv Ment Dis* 2002; 190:175-82.
- [17] - Bienvenu OJ, Williams JB, Yang A, Hopkins RO, Needham DM. Posttraumatic stress disorder in survivors of acute lung injury: evaluating the Impact of Event Scale-Revised. *Chest* 2013; 144:24-31.
- [18] - Wurst FM, Mueller S, Petitjean S, et al. Patient suicide: A survey of therapists' reactions. *Suicide Life Threat Behav* 2010;40:328–336.
- [19] - Yousaf, F, Hawthorne M, Sedgwick P. Impact of patient suicide on psychiatric trainees. *Psychiatric Bull* 2002;26:53–55.
- [20] - Alexander DA, Klein S, Gray NM, Dewar IG, Eagles JM. Suicide by patients: questionnaire study of its effect on consultant psychiatrists. *BMJ* 2000;320:1571-4.
- [21] - Kelleher E, Campbell A. A study of consultant psychiatrists' response to patients' suicide. *Ir J Psychol Med* 2011;28:35-37.
- [22] - Erlich MD, Rolin SA, Dixon LB, et al. Why we need to enhance suicide postvention: evaluating a survey of psychiatrists' behaviors after the suicide of a patient. *J Nerv Ment Dis* 2017;205:507-511.
- [23] - Walsh G, Sara G, Ryan CJ, Large M. Meta-analysis of suicide rates among psychiatric in-patients. *Acta Psychiatr Scand* 2015;131:174-84.

- [24] - Seys D, Wu AW, Van Gerven E, et al. Health care professionals as second victims after adverse events: a systematic review. *Eval Health Prof* 2013;36:135-62.
- [25] - Castelli Dransart DA. Reclaiming and reshaping life: patterns of reconstruction after the suicide of a loved one. *Qual Health Res* 2016;27:994-1005
- [26] - Castelli Dransart DA, Heeb JL, Gulfi A, Gutjahr EM. Stress reactions after a patient suicide and their relations to the profile of mental health professionals. *BMC Psychiatry* 2015;15:265.
- [27] - Prabhakar D, Balon R, Anzia JM, et al. Helping psychiatry residents cope with patient suicide. *Acad Psychiatry* 2014;38:593–597.
- [28] - Lerner U, Brooks K, McNiel DE, Cramer RJ, Haller E. Coping with a patient's suicide: A curriculum for psychiatry residency training programs. *Acad Psychiatry* 2012;36:29–33.
- [29] - Jefe-Bahloul H, Hanna RC, Brenner AM. Teaching psychiatry residents about suicide loss: Impact of an educational program. *Acad Psychiatry* 2014;38:768–770.
- [30] - Ruskin R, Sakinofsky I, Bagby RM, Dickens S, Sousa, G. Impact of patient suicide on psychiatrists and psychiatric trainees. *Acad Psychiatry* 2004;28:104–110.
- [31] - Figueroa, S, Dalack GW. Exploring the impact of suicide on clinicians: a multidisciplinary retreat model. *J Psychiatr Pract* 2013;19:72-7.
- [32] - Leane E, Cuvillier B, Vieux M, et al. The SUPPORT-S protocol study: a postvention program for professionals after patient or user suicide. *Front Psychol* 2020;11:805.
- [33] - <https://www.profilmedecin.fr/contenu/chiffres-cles-medecin-psychiatre/>; accessed on 16 September, 2020

1. Recognize your own limits and the impact you are experiencing after the PS
2. Avoid isolation of the colleague by promoting a team-based dynamic of peer-support
3. Be particularly attentive to early career psychiatrists and residents
4. Provide early emotional first aid to promote the expression, recognition and validation of the emotions perceived (guilt, sadness, anger, shock...)
5. Help the affected colleague for the management of the meeting with the family and the procedures related to the administrative or police inquiry
6. Promote the access to institutional support (superiors, occupational medicine) or personal counseling
7. Organize a team-based debriefing in the days after PS based on a global empathetic supportive approach (avoid adding stigma: prefer a global analysis of the process and of prevention rather than focus on the individual responsibility of the caregivers involved)
8. Accept to manage the care of the most difficult patients (including suicidal patients) in the days after PS
9. Manage the announcement of the suicide to other patients and prevent suicidal contagion in the setting or community
10. Organize a morbidity/mortality conference in the weeks after PS
11. Propose to the colleague to engage him/herself in a workshop session (prevention of suicidal behaviors, occupational stress and burnout, support for professionals after adverse events...) in the months after PS

PS= patient suicide

**Figure 1. Recommendations from the authors on how to provide peer-support to a colleague affected by a patient suicide**

| Variables                                 | Percentage  | n   |
|-------------------------------------------|-------------|-----|
| <b>Age (mean)</b>                         | 44.5        | 764 |
| <b>Gender</b>                             |             |     |
| Female                                    | <b>60.3</b> | 461 |
| Male                                      | 39.7        | 303 |
| <b>Duration of practice at completion</b> |             |     |
| Less than 5 years                         | <b>29.3</b> | 224 |
| Between 5 and 10 years                    | 20.1        | 154 |
| Between 10 and 20 years                   | 20.4        | 156 |
| More than 20 years                        | 30.1        | 230 |
| <b>Location of practice at completion</b> |             |     |
| Public hospital                           | <b>63.1</b> | 482 |
| Liberal office                            | 22.5        | 172 |
| Private hospital                          | 8.1         | 62  |
| Association                               | 1.8         | 14  |
| Mixed                                     | 1.6         | 12  |
| Other                                     | 2.9         | 22  |
| <b>Exposure to PS</b>                     |             |     |
| Yes                                       | <b>87.3</b> | 667 |
| No                                        | 12.3        | 97  |
| <b>Number of exposure</b>                 |             |     |
| Two or more                               | <b>68.2</b> | 455 |
| One                                       | 31.8        | 212 |
| <b>Time of first exposure</b>             |             |     |
| Residency                                 | <b>42.3</b> | 282 |
| During the 10 first years of practice     | 39.1        | 261 |
| Between 10 and 20 years of practice       | 6.9         | 46  |
| After more than 20 years of practice      | 1.5         | 10  |
| NA                                        | 10.2        | 68  |

PS= patient suicide

**Table 1. Characteristics of participants**

| <b>Variables</b>            | <b>%</b>    | <b>n</b> |
|-----------------------------|-------------|----------|
| <b>Gender</b>               |             |          |
| Male                        | <b>55.8</b> | 333      |
| Female                      | 44.2        | 264      |
| <b>Age</b>                  |             |          |
| <18                         | 3.8         | 23       |
| 18 to 35                    | 42.1        | 252      |
| 36 to 65                    | <b>44.6</b> | 268      |
| >65                         | 9.2         | 55       |
| <b>Diagnosis/es*</b>        |             |          |
| Mood disorder               | <b>48.4</b> | 323      |
| Psychotic disorder          | 23.5        | 157      |
| Personality disorder        | 28.0        | 187      |
| Substance use               | 8.2         | 55       |
| PTSD                        | 2.55        | 17       |
| Anxiety disorder            | 8.4         | 56       |
| Other                       | 4.8         | 32       |
| <b>Localization of care</b> |             |          |
| Inpatient care              | <b>51.0</b> | 303      |
| Ambulatory care             | 38.2        | 227      |
| Emergency unit              | 6.1         | 36       |
| General Hospital            | 1.5         | 9        |
| Other                       | 3.2         | 19       |
| <b>Localization of PS</b>   |             |          |
| At home                     | <b>51.9</b> | 300      |
| In the hospital             | 21.1        | 122      |
| In a public place           | 19.4        | 112      |
| Other                       | 6.6         | 38       |
| Unknown                     | 1.0         | 6        |
| <b>Method(s) for PS*</b>    |             |          |
| Hanging                     | <b>39.8</b> | 234      |
| Jumping                     | 25.2        | 148      |
| Self-poisoning              | 19.7        | 116      |
| Asphyxia                    | 4.4         | 26       |
| Venotomy                    | 4.4         | 26       |
| Gunshot                     | 4.4         | 26       |
| Other                       | 2.0         | 12       |

PS= patient suicide

\* the percentage may overreach 100

**Table 2. Characteristics of patients who died by suicide**

| <b>Variables</b>                                          | <b>IES-R<br/>(mean)</b> | <b>SD</b> | <b>Total emotional<br/>score<br/>(mean)</b> | <b>SD</b> | <b>Negative<br/>professional<br/>impact (%)</b> |
|-----------------------------------------------------------|-------------------------|-----------|---------------------------------------------|-----------|-------------------------------------------------|
| <b>Gender</b>                                             |                         |           |                                             |           |                                                 |
| Male                                                      | 17.85                   | 15.62     | 9.96                                        | 6.03      | 77.5                                            |
| Female                                                    | 20.05                   | 16.04     | 12.07                                       | 6.07      | 85.1                                            |
| <b>Time of exposure</b>                                   |                         |           |                                             |           |                                                 |
| Residency                                                 | 18.53                   | 15.98     | 11.96                                       | 6.17      | 85.6                                            |
| < 10 years of practice                                    | 20.74                   | 16.88     | 11.86                                       | 6.16      | 83.7                                            |
| 10 to 20 years of practice                                | 16.42                   | 13.95     | 9.05                                        | 5.67      | 52.2                                            |
| >20 years of practice                                     | 18.09                   | 13.35     | 10.37                                       | 5.90      | 66.7                                            |
| <b>Exposure to the corpse or resuscitation techniques</b> |                         |           |                                             |           |                                                 |
| Yes                                                       | 19.25                   | 16.21     | 10.01                                       | 5.88      | 84.1                                            |
| No                                                        | 19.12                   | 14.51     | 11.48                                       | 6.19      | 81.2                                            |
| <b>Last contact with the patient on the day of PS</b>     |                         |           |                                             |           |                                                 |
| Yes                                                       | 25.64                   | 15.59     | 12.25                                       | 5.83      | 95.7                                            |
| No                                                        | 17.95                   | 15.72     | 11.08                                       | 6.16      | 79.3                                            |
| <b>Preparedness to encounter PS</b>                       |                         |           |                                             |           |                                                 |
| Yes                                                       | 16.48                   | 13.98     | 10.01                                       | 5.65      | 76.1                                            |
| No                                                        | 21.26                   | 16.62     | 12.16                                       | 6.19      | 86.0                                            |
| <b>Support in the aftermath</b>                           |                         |           |                                             |           |                                                 |
| Yes                                                       | 19.65                   | 15.50     | 11.58                                       | 5.84      | 84.0                                            |
| No                                                        | 19.18                   | 16.67     | 10.86                                       | 6.44      | 77.7                                            |
| <b>Administrative or police inquiry</b>                   |                         |           |                                             |           |                                                 |
| Yes                                                       | 22.20                   | 16.48     | 11.19                                       | 6.19      | 90.7                                            |
| No                                                        | 18.46                   | 15.74     | 11.28                                       | 6.13      | 79.5                                            |
| <b>Contact with the family after the suicide</b>          |                         |           |                                             |           |                                                 |
| Yes                                                       | 17.30                   | 15.79     | 11.27                                       | 6.07      | 81.3                                            |
| No                                                        | 19.70                   | 15.57     | 11.04                                       | 6.23      | 81.7                                            |
| <b>Suicidal ideation</b>                                  |                         |           |                                             |           |                                                 |
| Yes                                                       | 44.26                   | 16.78     | 18.72                                       | 5.85      | 92.3                                            |
| No                                                        | 18.25                   | 15.10     | 10.99                                       | 5.97      | 81.8                                            |

\*p<0.05 \*\*p<0.01; \*\*\*p<0.001

PS= patient suicide; IES-R= Impact of Event Scale – Revised

**Table 3. Traumatic, emotional and professional impacts reported by the participants in the aftermath of patient suicide**

| Variable                                           | IES-R score | Emotional score | Negative professional impact |
|----------------------------------------------------|-------------|-----------------|------------------------------|
| Gender (women)                                     | -0.068      | -0.169          | 0.098                        |
| Age                                                | -0.094*     | -0.215***       | -0.271***                    |
| Exposure during early career                       | -0.084      | -0.174***       | -0.303***                    |
| Exposure to the corpse or resuscitation techniques | -0.003      | -0.084          | 0.026                        |
| Last contact with the patient on the day of PS     | 0.179***    | 0.073           | 0.156**                      |
| Alone for follow-up                                | -0.050      | -0.023          | -0.062                       |
| Lack of preparedness                               | -0.151**    | -0.175***       | -0.126*                      |
| Lack of support in the aftermath                   | 0.014       | 0.057           | 0.080                        |
| Administrative or police inquiry                   | 0.092*      | 0.006           | 0.114                        |
| Contact with the family after the suicide          | 0.017       | 0.07            | -0.005                       |
| Feelings of responsibility for the death           | 0.351***    | 0.432***        | 0.353***                     |

\*p<0.05 \*\*p<0.01; \*\*\*p<0.001

PS= patient suicide; IES-R= Impact of Event Scale - Revised

**Table 4. Univariate analysis for factors associated with emotional, traumatic and professional impacts after patient suicide (Pearson's correlation coefficient)**

| Variable                      | IES-R score   | Emotional score |
|-------------------------------|---------------|-----------------|
|                               | $R^2 = 0.149$ | $R^2 = 0.205$   |
|                               | $\beta$       | $\beta$         |
| Feelings of responsibility    | 0.349***      | 0.418***        |
| Last contact on the day of PS | 0.138**       | -               |
| Age                           | -             | -0.170**        |
| Exposure during early career  | -             | 0.094*          |

\*p<0.05; \*\*p< 0.01; \*\*\*p<0.001

IES-R= *Impact of Event Scale - Revised*

**Table 5. Multivariate linear regression for predictive variables for traumatic and emotional impact after patient suicide**