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Effect of a condolence letter on grief symptoms among relatives of patients who died in the ICU: a randomized clinical trial

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Abstract

Purpose: Family members of patients who die in the intensive care unit (ICU) may experience symptoms of stress, anxiety, depression, posttraumatic stress disorder (PTSD), and/or prolonged grief. We evaluated whether grief symptoms were alleviated if the physician and the nurse in charge at the time of death sent the closest relative a handwritten condolence letter.

Methods: Multicenter randomized trial conducted among 242 relatives of patients who died at 22 ICUs in France between December 2014 and October 2015. Relatives were randomly assigned to receiving ($n = 123$) or not receiving ($n = 119$) a condolence letter. The primary endpoint was the Hospital Anxiety and Depression Score (HADS) at 1 month. Secondary endpoints included HADS, complicated grief (ICG), and PTSD-related symptoms (IES-R) at 6 months. Observers were blinded to group allocation.

Results: At 1 month, 208 (85.9%) relatives completed the HADS; median score was 16 [IQR, 10–22] with and 14 [8–21.5] without the letter ($P = 0.36$). Although scores were higher in the intervention group, there were no significant differences regarding the HADS-depression subscale (8 [4–12] vs. 6 [2–12], mean difference 1.1 [−0.5 to 2.6]; $P = 0.09$) and prevalence of depression symptoms (56.0 vs. 42.4%, RR 0.76 [0.57–1.00]; $P = 0.05$). At 6 months, 190 (78.5%) relatives were interviewed. The intervention significantly increased the HADS (13 [7–19] vs. 10 [4–17.5], $P = 0.04$), HADS-depression subscale (6 [2–10] vs. 3 [1–9], $P = 0.02$), prevalence of depression symptoms (36.6 vs. 24.7%, $P = 0.05$) and PTSD-related symptoms (52.4 vs. 37.1%, $P = 0.03$).

Conclusions: In relatives of patients who died in the ICU, a condolence letter failed to alleviate grief symptoms and may have worsened depression and PTSD-related symptoms.

Trial registration Clinicaltrials.gov Identifier: NCT02325297.

Keywords: Letter of condolence, Bereaved relatives, Grief symptoms

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This study was performed on behalf of the Famirea Study Group.

All contributors are listed in the Electronic supplementary material 1.

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Introduction

Among patients who die in hospital, the proportion dying in the intensive care unit (ICU) is increasing [1–3]. Studies have shown that more than half of bereaved relatives experience grief symptoms characterized by variably combined symptoms of anxiety, depression, stress, and complicated grief [2, 4–7]. Interventions to improve grief symptoms are scarce. Two randomized controlled trials showed that improving communication during end-of-life care alleviated grief symptoms in relatives of patients who had died in the ICU [8, 9]. However, no interventions implemented after the death have been evaluated.

After the patient's death, relatives often perceive an abrupt shift in their relationship with clinicians [10]. Failure to provide opportunities to say goodbye to the ICU team, with whom the relatives spent several intensely emotional days, may impair the grieving process [11, 12]. The duties of clinicians towards patients and relatives do not end when the patient dies. A letter of condolence from the clinician may benefit the grieving process in the relatives [13], as suggested by a qualitative study [14]. Such a letter may help the family accept the pain of bereavement and emphasize the value given by the clinician to the relationship with the patient and family [15]. A condolence letter may then alleviate grief symptoms, such as symptoms of anxiety, depression, PTSD, or complicated grief.

No study has properly assessed the impact of a condolence letter on grief symptoms in relatives. Sending a condolence letter is a simple and inexpensive means of communicating care and concern and might therefore benefit the relatives' well-being. We designed a multicenter randomized controlled trial to test the hypothesis that a condolence letter, compared to no condolence letter, alleviated grief symptoms in relatives of patients who had died in the ICU.

Patients and methods

Study design and oversight

From December 2014 to December 2015, we conducted a randomized, parallel-group trial in 22 hospitals in France (11 university and 11 non-university hospitals belonging to the French FAMIREA study group, "Appendix 1").

The study protocol was approved by the French ethics committee CPP Ile de France IV, Saint-Louis (April 15, 2014, #2014/14SC) and French health authorities (CNIL MMS/VCS/AR149697 and CTTIRS #14284). The protocol and statistical analysis plan have been published [16]. The trial was registered on clinicaltrial.gov on December 19, 2014 and the first patient/next of kin was randomized on December 20, 2014. Informed consent was obtained from all participants.

The trial was overseen by an independent data and safety monitoring board. The funding source (Fondation de France) is an academic nonprofit organization that had no role in the study.

Patients

Patients were recruited in 22 ICUs belonging to FAMIREA and having considerable expertise in end-of-life care [16, 17]. Eligibility criteria were age at least 18 years; at least one family visit prior to death; and an ICU stay of at least 2 days. Exclusion criteria were being pregnant and family not fluent in French.

Relatives

A single relative per patient was included. This relative was the designated healthcare proxy when available and the family member most involved with the ICU team otherwise. Informed consent was sought in the hours following patient's death. As per institutional review board requirement, the patient information sheet did not specify the nature of the intervention, but that a strategy to improve communication was being evaluated.

Randomization

Eligible patients/relatives were included by investigators in each ICU then randomly assigned in a 1:1 ratio to the intervention or control group. Randomization occurred within 24 h of the patient's death and was stratified according to study center on the basis of pre-established lists, with permutation blocks, whose size was concealed. A centralized Internet-based randomization procedure was used.

Treatments

We hypothesized that an intervention taking place after the patient's death would have a more positive impact as during this period bereaved family members describe feelings of abandonment, lack of comprehension, and a need for continuity [18]. All treatment decisions other than the condolence letter were made by the bedside physicians according to standard practice in each ICU. All families talked with the clinicians daily and attended an end-of-life conference [17]. Family involvement in decisions was tailored to each case on the basis of patient preferences, the family's preferred role as identified within the first ICU days, and an assessment by the ICU team [19–21].

In both groups, symptom control, timing of communication at the end-of-life, and implementation of treatment-limitation decisions were at the clinician's discretion. A letter of condolence was not part of standard care in the participating ICUs.

In the intervention group, a condolence letter was prepared within 3 days after the patient's death, according to a guide developed by study investigators and based on their experience of qualitative interviews with bereaved families, literature review, and consensus among their multidisciplinary research team ("Appendix 2").

The physician and nurse in charge of the patient handwrote the letter and address on the envelope, which was kept in the physician's office until it was sent by standard mail 15 days after the patient's death. The randomization software sent an automatic reminder to mail the letter. A copy of the letter was filed in the case-report form. In brief, the letter covered the five following domains [13, 14, 18]: recognize the death and name the deceased; mention a personal impression of the deceased; recognize the family member; offer help; and express sympathy ("Appendix 2").

In both groups, after randomization, the clinicians recorded all reactions or feedback (telephone calls, letters, visits, or other) from the relatives within 4 months following death.

Study outcomes

The telephone interviews with family members 30 days and 6 months after the patient's death were conducted by psychologists, sociologists, and research nurses blinded to study group.

The primary study outcomes were the Hospital Anxiety and Depression Scale (HADS) score ≥13 and the prevalence of significant symptoms of both anxiety and depression (score ≥8 on each subscale) after 1 month [4, 22, 23]. Secondary outcomes, evaluated after 6 months, were the HADS score, prevalence of HADS anxiety and depression subscale scores ≥8, Impact of Event Scale Revised (IES-R) score, prevalence of significant PTSD-related symptoms (IES-R ≥26) [2, 8, 16, 21, 24, 25], Inventory of Complicated Grief (ICG) score, and prevalence of high risk for complicated grief (ICG ≥25) [5, 16]. The quality of dying and death as perceived by the relative was assessed using the CAESAR instrument [16].

The data in the tables and figures were collected prospectively. For each letter written, ICU specialists were asked to complete a questionnaire about their experience of writing condolence letters (supplemental Table 1).

Statistical analysis

All analyses were conducted according to a previously published statistical analysis plan [26]. On the basis of previous studies by our group [2, 4, 8, 16], we sought to detect a 30% HADS score decrease on day 30 and a decrease in the prevalence of anxiety and depression from 60% in controls to 42% with the condolence letter. Using a two-sided Chi square test, with α set at 0.05, to obtain 90% power we needed 120 patients per group (240 in all).

No interim analysis was scheduled. The intent-to-treat approach was used. Continuous variables were described as median (interquartile range) and categorical variables as proportions. The primary outcome was compared between groups using the Wilcoxon rank-sum test for the total HADS score and the Chi square test, or exact Fisher test when appropriate, for prevalence of anxiety and depression.

Total scores on the HADS, IES-R, ICG, and CAESAR were compared between groups using the Wilcoxon rank-sum test. The prevalences of anxiety, depression, PTSD, and complicated grief were compared using the Chi square test, or exact Fisher test when appropriate; effect sizes were measured on mean difference or relative risk (RR), with their 95% confidence interval (95% CI), respectively. We then used multivariable logistic regression models to compute adjusted odds ratios (ORs) for anxiety and depression, PTSD, or complicated grief symptoms at 1 and 6 months, with their 95% CIs. We then used multivariable logistic regression models to compute adjusted odds ratios (ORs) for all outcome measures, namely HADS total scale (≥13), anxiety and depression each (≥8), PTSD, or complicated grief symptoms at 1 and 6 months, with their 95% CIs. Variables included in the multivariable model were those statistically significant in univariable analyses at the 5% level, or those selected for their predictive value based on previous reports. Variable selection used a stepwise selection procedure at the 5% level.

Effect sizes were measured on mean difference or relative risk (RR), with their 95% confidence interval (95% CI), respectively. Sensitivity analyses were performed to handle missing outcomes, assuming that those patients had either a HADS value below or above 13 (supplemental Table 2).

All reported P values are two-sided, and the significance level was 0.05. All analyses were performed on SAS software (SAS Inc., Cary, NC) and R 3.1.0 software (http://www.R-project.org/).

Results

Patients and relatives

Of the 242 included patients, 123 were randomly assigned to the intervention letter and 119 to the control group (Fig. 1). Interviews were conducted for 208 (86%) relatives after 1 month (including 88 [42.3%] living alone) and 190 (78.5%) at 6 months. Baseline characteristics were evenly distributed between the two groups (Table 1). Treatment-limitation decisions were taken for 202 (83.5%) patients, with active involvement of the family in half the cases. The relatives were usually adult children (n = 83, 40%)

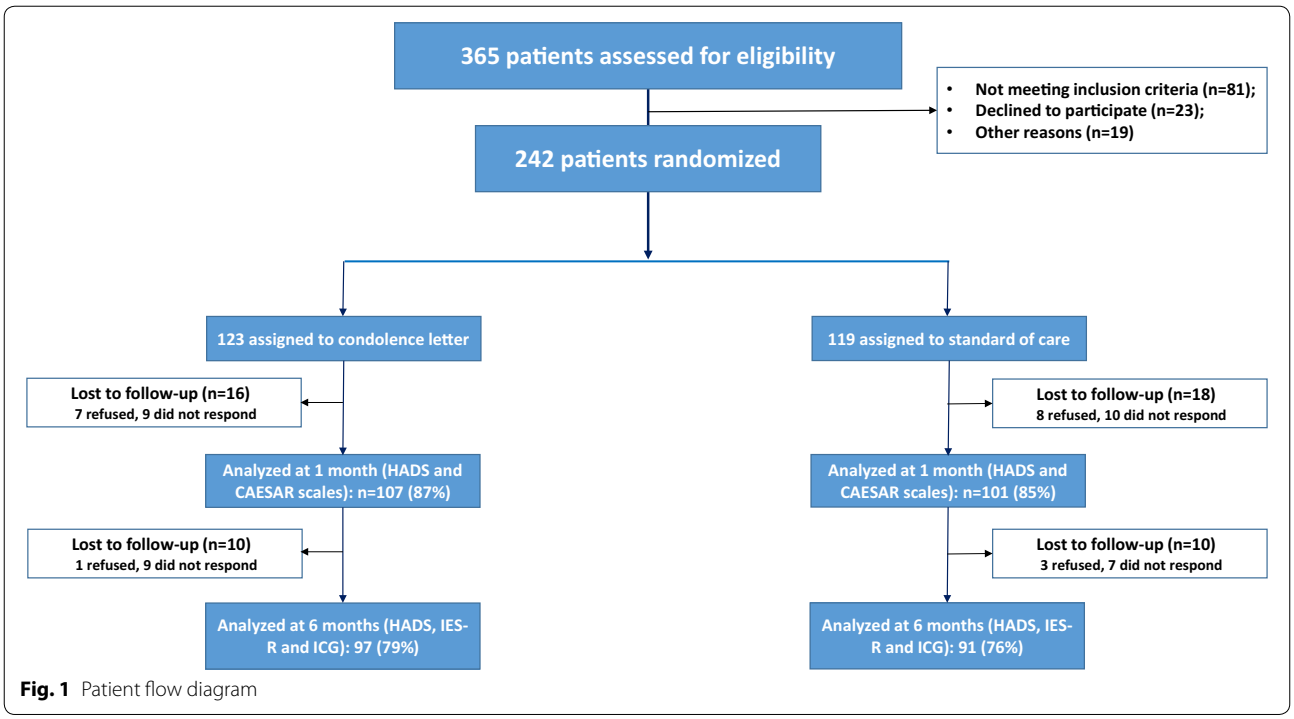

Fig. 1 Patient flow diagram

or spouses/partners ($n = 74$, 35.6%). The CAESAR score indicated a good family experience of dying and death with a median score of 66 (66 [50–76] in the intervention group and 66 [52–78] in the control group).

Interventions

All intervention-group relatives were sent a condolence letter 2 weeks after the patient's death. All the letters complied with study guidelines and all included personal phrases and thoughts from physicians and nurses.

Feedback was received from 55 (44.7%) intervention-group relatives and 8 (6.7%) controls ($P < 0.0001$) and was consistently positive regarding quality of care. Of the 55 intervention-group relatives who gave feedback, 50 did so to thank the clinician for the condolence letter. No relatives complained about the condolence letter.

ICU specialists reported that writing a condolence letter was neither difficult nor time consuming and that, although it did not particularly help them, it could help family members (supplemental Table 1).

Primary outcome

After 1 month, the HADS score was 16 [10–22] in the intervention group and 14 [8–21.5] in the control group ($P = 0.36$) (Table 2; Fig. 2). The mean difference in HADS score was estimated at 0.77 (95% CI −1.7 to +3.3). Although scores were higher in the intervention group, there were no significant differences in the HADS-depression subscale (8 [4–12] vs. 6 [2–12], mean difference, 1.1, 95% CI −0.5 to +2.6; $P = 0.097$) and prevalence of depression symptoms (56.0 vs. 42.4%, RR = 0.76, 95% CI 0.57–1.00; $P = 0.054$). There were also no significant differences in the HADS-anxiety subscale (7 [4–11] vs 7 [4–12]; $P = 0.92$) and prevalence of anxiety symptoms (47.7 vs 45.5%; $P = 0.97$).

Secondary outcomes

After 6 months, the HADS score was significantly worse in the intervention group (13 [7–19] vs. 10 [4–17.5], $P = 0.04$) (Table 2; Fig. 2). The HADS-depression subscale score (6 [2–10] vs. 3 [1–9], mean difference of 1.4, 95% CI −0.14 to +2.90; $P = 0.026$) and prevalence of depression symptoms (36.6 vs. 24.7%, $P = 0.05$) were also higher with the intervention. The intervention group had a higher prevalence of PTSD-related symptoms (52.4 vs. 37.1%, $P = 0.03$) but similar prevalence of complicated-grief symptoms (37.6 vs. 29.2%, $P = 0.28$).

Risk factors

Table 3 reports the results of multivariate models of each outcome measure, where only variables selected by univariable analyses were introduced jointly. On the basis of multivariable analysis, a high 6-month HADS score (≥ 13) was unexpectedly associated with the condolence letter (OR 2.17, 95% CI 1.02–4.76), as well as patient's age (the lower, the higher the odds of increased HADS) and family education level (OR 2.50, 95% CI 1.08–5.88), the spouse or partner status of the relative (OR 7.08, 95%

Table 1 Patients and family members' characteristics

N (%) or median (25th–75th percentile) Patients a randomization	Condolence letter *N* = 123	Control group *N* = 119
Age/female gender	61 (54–71)/41 (33.3%)	61 (54–66)/44 (37.0%)
At least one comorbidity	98 (79.7%)	100 (84.3%)
Intractable cancer	37 (30.1%)	36 (30.2%)
Dependent or bedridden	62 (50.4%)	56 (47.1%)
Dementia	12 (9.7%)	10 (8.4%)
Life support was withheld/withdrawn	99 (80.5%)	103 (86.5%)
Preferred role of relatives		
Being only informed of the end-of-life decision	31 (25.3)	41 (34.4)
To actively share the end-of-life decision	66 (53.6%)	61 (51.3%)
Undetermined or unknown	26 (21.1)	17 (14.3)
Patient intubated/sedated at the time of death	72 (58.5%)/97 (78.9%)	65 (54.6%)/91 (76.5%)
Extubation in the last 48 h of life	31 (25.2%)	36 (30.2%)
Family–clinician or intra-team conflicts	9 (7.3%)	13 (10.9%)
Bedside presence at the time of death		
Nurses	81 (65.9%)	77 (64.7%)
Relatives	75 (61.0%)	71 (59.7%)
Physicians	38 (30.9%)	38 (31.9%)
Relatives interviewed at day 30	***N* = 109**	***N* = 99**
Age/female gender	57 [46–65.5]/74 (67.9%)	56 [44–64.5]/71 (71.7%)
Relationship to the patient		
Spouse	42 (38.5%)	32 (32.3%)
Children	43 (39.4%)	40 (40.4%)
Other	24 (22.0%)	26 (26.2%)
Live alone after patient's death	45 (41.3%)	43 (43.4%)
Rating of dying and death quality (CAESAR)	66 [50–76]	66 [52–78]

CAESAR quality of dying and death instrument developed by the FAMIREA study group [16]

Table 2 Primary and secondary endpoints

N (%) or median (25th–75th)	Condolence letter, *N* = 123	Control group, *N* = 119	*P* value
Primary endpoint (day 30)	*N* = 109 (88.6%)	*N* = 99 (83.2)	
Hospital Anxiety and Depression Scale (HADS)	16 [10–22]	14 [8–21]	0.36
Depression subscale	8 [4–12]	6 [2–12]	0.09
Relatives with symptoms of depression (subscale ≥8)	61 (56.0%)	42 (42.4%)	0.05
Secondary endpoints	*N* = 101 (82.1%)	*N* = 89 (74.8)	
Hospital Anxiety and Depression Scale (HADS) at day 180	13 (6–19)	9 (4–17)	0.04
Depression subscale	6 (2–10)	3 (1–8)	0.01
Relatives with symptoms of depression (subscale ≥8)	37 (36.6%)	22 (24.7%)	0.05
Impact of Events Scale-Revised at day 180	28 [15–38]	20 [10–37]	0.09
Relatives with PTSD-related symptoms (IES-R ≥26)	53 (52.4%)	33 (37.1%)	0.03
Inventory of complicated grief (ICG) at day 180	16 [8–30]	13 [4–27]	0.07
Relatives at high risk for complicated grief (ICG ≥25)	38 (37.6%)	24 (27.0%)	0.11

CI 3.13–16.01) and the female gender of the relative (OR 3.02, 95% CI 1.25–7.30). By contrast, there was no statistical evidence that, when adjusting according to the prognostic factors (namely relative status and gender), the condolence letter modified the depression scale at 1 month (OR 1.85, 95% CI 0.98–3.45; $P = 0.06$).

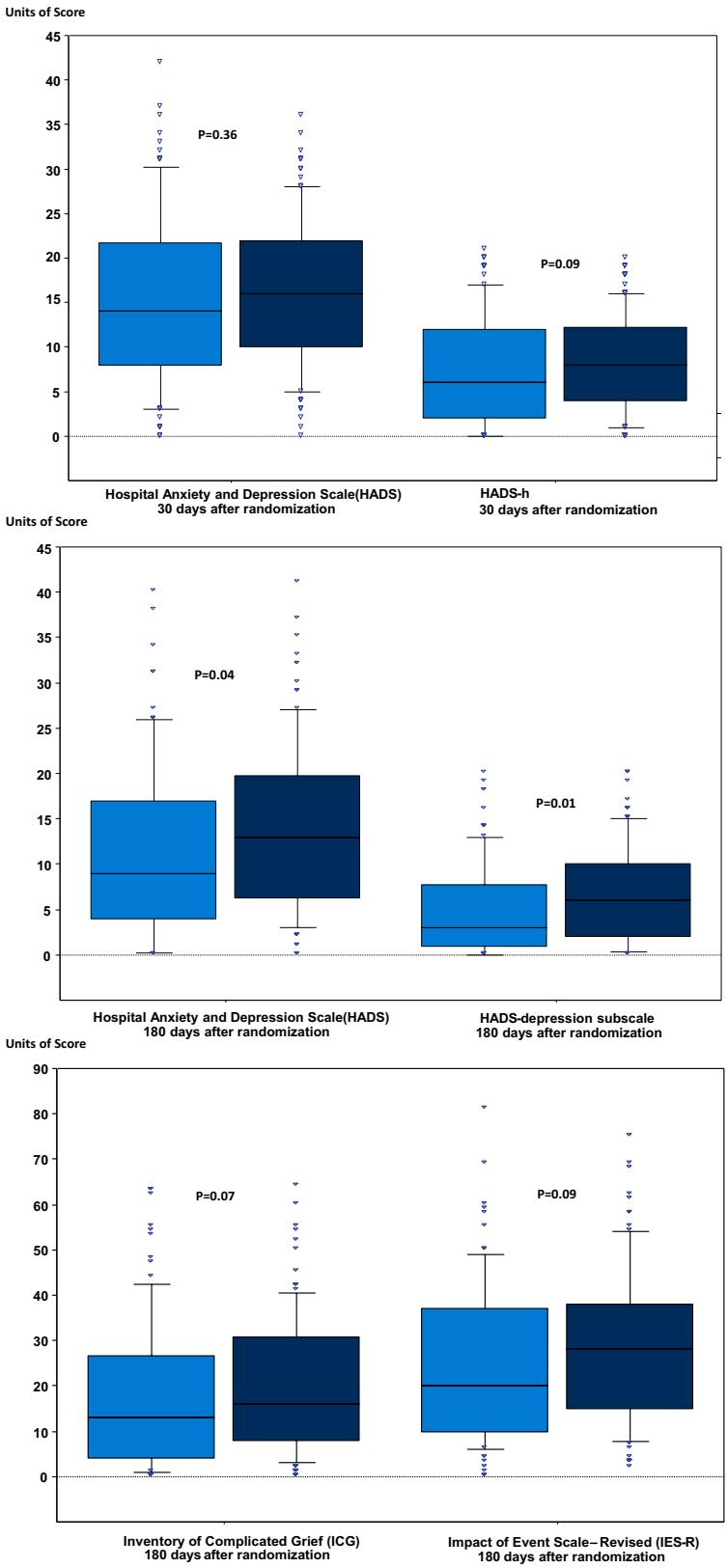

Fig. 2 Primary and secondary endpoints in intervention (*dark gray bars*) and control groups (*light gray bars*)

Table 3 Independent predictors of primary and secondary outcomes by multivariable analyses

	Odds ratio (95% confidence intervals)	*P* value
Determinants of total HADS at day 30		
Relative who was spouse or partner	2.48 (1.32–4.66)	0.01
Relative of female gender	2.19 (1.17–4.10)	0.01
CAESAR score	0.99 (0.98–1.01)/point	0.51
Determinants of depression symptoms at day 30		
Relative who was spouse or partner	5.16 (2.61–10.18)	<0.0001
Relative of female gender	2.30 (1.14–4.65)	0.02
Randomized in control group (no condolence letter)	0.54 (0.29–1.02)	0.06
Determinants of total HADS at day 180		
Patient's age	0.97 (0.95–0.99)/year	0.04
Relative who was spouse or partner	7.08 (3.13–16.01)	<0.0001
Relative of female gender	3.02 (1.25–7.30)	0.01
High family education level	0.40 (0.17–0.93)	0.03
Randomized in control group (no condolence letter)	0.46 (0.21–0.98)	0.04
Determinants of depression subscale at day 180		
Patient's age	0.96 (0.93–0.99)/year	0.01
Relative who was spouse or partner	4.89 (2.07–11.54)	<0.0001
Relative live alone after patient's death	3.85 (1.59–9.30)	<0.0001
Determinants of symptoms of complicated grief at day 180		
Patient's age	0.95 (0.93–0.98)/year	<0.0001
Relative who was spouse or partner	3.44 (1.47–8.05)	<0.0001
Relative live alone after patient's death	4.33 (1.81–10.38)	<0.0001
Determinants of PTSD symptoms at day 180		
Patient's age	0.96 (0.94–0.99)/year	0.01
Relative who was spouse or partner	5.61 (2.59–12.11)	<0.0001
High family education level	0.39 (0.17–0.88)	0.02

CAESAR quality of dying and death instrument developed by the FAMIREA study group [16]

There was no evidence of any difference in terms of HADS less than 13 or at least 13 at day 30 across the randomized arms, and this was confirmed in all the sensitivity analyses but one that assumed a possibly unrealistic extreme case (supplemental Table 2).

Discussion

For clinicians providing care to dying patients, the well-being of the close family members is a central concern [19]. Caring for the family involves listening, eliciting and answering questions, showing that the family's role is valued, and addressing the specific needs of each family [27]. Psychiatric morbidity is common in relatives of patients who died in the ICU [28], the lack of interaction possibly hindering the grieving process [29]. The National Consensus Project for Quality Palliative Care has suggested that family care must continue after the patient's death by providing support to help the family cope during their grieving process [30, 31]. We report the results of the first randomized clinical trial testing a clinician-led intervention that was implemented after the patient's death, at a time when the relatives no longer came to the ICU. A handwritten condolence letter sent 2 weeks after the death failed to alleviate grief symptoms. Unexpectedly, symptoms of depression and PTSD were worse with the intervention, albeit not significantly. Secondary outcomes, measured at 6 months, show a significant increased risk of developing depression and PTSD symptoms.

Our findings agree with earlier studies in that they were unexpected and opposite to the principal hypothesis [2, 8, 9, 16, 32, 33]. The lack of effect of the intervention on the primary outcome (1-month HADS score) cannot be ascribed to insufficient power. The predicted impact of the intervention used for the sample size estimation was not overestimated, and therefore our study was adequately powered for the primary outcomes. When planning the study, we assumed that the intervention would alleviate grief symptoms. Instead, the relatives who received a condolence letter had an increased prevalence of symptoms of depression and PTSD-related symptoms. Moreover, by multivariable analysis, receiving

a condolence letter was independently associated with HADS score at 6 months.

A key issue is whether the possible adverse effects of the intervention were related to the letter itself or to the 2-week interval between the patient's death and the letter. It has been suggested that a condolence letter or telephone call might help bereaved relatives [34]. In oncology, follow-up contact with the relatives (attending funerals, visiting at home, calling on the telephone, or sending a condolence letter) is frequently offered to acknowledge the loss, express sympathy and support, and offer opportunities to answer questions about end-of-life care [35–37]. In our study, the letter may have been perceived by the relatives as an unwelcome reminder of a painful period characterized by feelings of failure and helplessness, which are known contributors to depression [38]. Alternatively, for relatives still requiring the protection afforded by denial, the letter may have weakened that psychological position, thereby exacerbating symptoms of depression and PTSD [12]. However, in a recent qualitative study about reasons to participate in bereavement research, bereaved relatives reported wanting to thank the ICU staff members and to continue receiving support and care from them [18]. In the primary-care setting, nearly half the respondents to a survey reported expecting a telephone call from their family physician shortly after the death and that any mark of sympathy from the physician was greatly appreciated [39].

A condolence letter alone may be insufficient to provide benefits. Complex interventions to support bereaved relatives have been evaluated in the ICU or palliative-care setting [9, 32, 33]. Family members may have expected the letter to be followed by further support and felt disappointment when none was provided. However, of the 123 intervention-group patients, 50 (40%) thanked the clinician for the letter. However, studies of complex interventions produced conflicting results. For instance, in a randomized controlled trial by our group, an end-of-life family conference and brochure decreased the prevalences of symptoms of anxiety, depression, and PTSD [9, 32, 33]. In another randomized controlled trial, having a facilitator support communication between ICU clinicians and families, tailor interactions to each family's needs, and mediate conflict produced no benefits at the 3-month evaluation, although the prevalence of symptoms of depression was decreased after 6 months [9].

Importantly, two trials reported unexpected effects from end-of-life interventions. For instance, in a randomized trial, Curtis et al. assessed the effects of an 8-session, simulation-based, communication skills intervention for internal medicine and nurse practitioner trainees on patient- and family-reported outcomes [32]. The intervention was associated with significantly increased depression scores. More recently, Carson et al. conducted a multicenter randomized clinical trial in patients requiring 7 days of mechanical ventilation [33]. They assessed the impact of structured family meetings led by palliative care specialists, and provision of an informational brochure, on surrogate decision-makers. PTSD symptoms were higher in the intervention group compared with the control group. In the present trial, the finding that a condolence letter failed to alleviate grief symptoms and may have worsened depression and PTSD-related symptoms in bereaved relatives is in line with these trials. Interestingly, the three studies share common points but also striking differences. All are large multicenter trials that targeted grief symptoms in family members of ICU patients, and all reported unexpected results as the intervention did not improve outcomes but was associated with increased depression or PTSD-related symptoms. However, in the present trial randomization occurred at the time of death and the intervention occurred 2 weeks after patient's death, relatives having left the hospital. Moreover, this study did not involve palliative care specialists. Our data raise concern that rather than being helpful to bereaved relatives, involvement of physicians in bereavement care in the form a unique condolence letter may in fact be inappropriate [40].

Strengths of our study include the multicenter design and full compliance with the intervention. The characteristics of the patients and relatives and the severity of grief symptoms are consistent with earlier work [9, 16, 33]. The follow-up rate of relatives was very high. The statistical analysis plan was published before recruitment was completed, eliminating all risk of analytical bias [26]. The interviewers who collected the primary and secondary outcomes were blinded to group allocation. Although the HADS score might be influenced by observer bias [8, 9, 33], it is a well-validated outcome measure. The risk of bias was minimized by using central randomization and the risk of patient selection by effective concealment of the randomization scheme. The results have a high degree of external validity, since the centers belong to a large research group including university and non-university hospitals [5, 6, 8, 16].

Our study has several limitations. All participating ICUs were in France, which may limit the general applicability of our findings, as end-of-life care and bereavement follow-up vary widely across countries. Furthermore, all ICUs belonged to a group that had a special interest in family-centered care. The intervention was not fully standardized: the clinicians followed guidelines for the letter but otherwise were free to write what they wanted to. Nevertheless, all letters complied with the guidelines. The psychological status of the relatives at the time they received the condolence letter was

not evaluated. This factor may influence the effect of a condolence letter, and the kinetics of grieving remain unclear [9, 32, 33]. Also, a condolence letter alone may have been insufficient to provide expected benefits. However, if the condolence letter had only been one part of a more complex intervention, it would have been difficult to distinguish what specific element of the intervention had an impact of relatives' grief symptoms. We chose a simple intervention in order to fully appreciate its impact on relatives' experience. Moreover, a careful analysis of the letters sent to the relatives showed that these letters included components of each of the five recommended domains, suggesting that the intervention was provided at the same dose for each participating family member. Last, our primary outcome was collected after only 1 month and the secondary outcomes after 6 months. Studies of outcomes after 1 or 2 years would be of interest.

In conclusion, in our trial, a condolence letter did not alleviate grief symptoms in relatives of patients who died in the ICU. Unexpectedly, the intervention was associated with higher prevalences of symptoms of depression and PTSD. Our findings do not support the sending of a condolence letter to bereaved relatives as the sole, routine post-ICU intervention.

Electronic supplementary material

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Appendix 1: Participating ICUs

	Investigator name	City	Hospital	Type of intensive care
1	Marion Venot	Paris	Saint Louis	Medical intensive care
2	Benoît Champigneulle	Paris	Cochin	Medical intensive care
3	Maité Garrouste	Paris	Saint Joseph	General intensive care
4	Gilles Troche	Le Chesnay-Versailles	André Mignot	General intensive care
5	Olivier Guisset	Bordeaux	Saint André	Medical intensive care
6	Anne Renault	Brest	Cavale Blanche	Medical intensive care
7	Laurent Argaud	Lyon	Edouard Herriot	Medical intensive care
8	Mélanie Adda	Marseille	Hôpital Nord	Medical intensive care
9	Jean-Philippe Rigaud	Dieppe	CH de Dieppe	General intensive care
10	Isabelle Vinatier	La Roche-sur-Yon	Les Oudairies	General intensive care

	Investigator name	City	Hospital	Type of intensive care
11	Samir Jaber	Montpellier	Saint Eloi	General intensive care
12	Marina Thirion	Argenteuil	CH Victor Dupouy	General intensive care
13	Olivier Lesieur	La Rochelle	CH de la Rochelle	General intensive care
14	René Robert	Poitiers	CHU de Poitiers	Medical intensive care
15	Raphaël Cinotti	Nantes	CHU de Nantes	Surgical intensive care
16	Laure Calvet	Clermont Ferrand	CHU Gabriel Montpied	General intensive care
17	Caroline Bornstain	Montfermeil	CHI Le Raincy	General intensive care
18	Marion Gilbert	Corbeil-Essones	CH Sud-Francilien	General intensive care
19	Véronique Gaday	Pontoise	CH René Dubos	General intensive care
20	Alexandre Demoule	Paris	La Pitié-Salpêtrière	Medical intensive care
21	François Thomas	Amiens	CHU Amiens-Picardie Hôpital Sud	Nephrology intensive care
22	Julien Massot	Paris	HEGP	Anesthesia-surgical intensive care

Appendix 2

Recommendations for writing a condolence letter and examples

Why write a condolence letter?

- To help family members in the bereavement process: the letter helps relatives feel recognized in their pain and not abandoned by the hospital team,
- to help family members manage potential feelings of anger or lack of understanding following an unexpected death,
- to help the physician take stock of the patient's death,
- to bring closure to the relationship between caregivers and the families of the deceased patient.

Recommendations for writing a condolence letter

The condolence letter must be handwritten

- Avoid superficial expressions like "I know what you're feeling".
- Don't write too formal a letter!
- Please be sure to integrate the following five domains.

Five domains to include in the letter:

1. Recognize the death—name the deceased
   - The importance of naming the deceased.
   - Reduces the feeling of loneliness of the family member.
2. Talk about the deceased
   - If possible, personality, age, interests (sports, religion…).
   - If possible, mention a specific memory of the deceased.
   - If possible, mention the relationship of the deceased with the family member.
3. Recognize the family member
   - Personality, strengths (to recognize a potential for coping effectively).
   - Mention what the family member did for or with the patient in ICU (frequent visits, participating in care, etc.).
   - Or even the relationship of the family member with the ICU team.
4. Offer help: the possibility of contacting you
   - Be specific (phone number of the ICU).
5. Express your sympathy (conclusion)
   - Symbolize a shared emotion.

Examples

1. Recognize the death and name the deceased

I send you my sincere condolences on the death of your sister, Alison Smith. Natalie, who was your sister's nurse, joins me in expressing our sympathy.

2. Mention the deceased

(a) Patient who was conscious and able to communicate:

We had the opportunity to get to know your brother during his stay in our unit. He was very brave. His smile and his words touched us often. His caregivers were always happy to go into his room.

Or

We had the opportunity to get to know your mother during her stay in our unit. She was very brave. We understood her need to be cared for and reassured and we hope we were able to comfort her in the difficult moments.

(b) Patient who was conscious but had difficulty communicating:

We had the opportunity to get to know your brother during his stay in our unit. He seemed very brave. He

tried to communicate with us in different ways, for example using the whiteboard we gave him, even though we know it was sometimes difficult for him.

(c) Patient who was never conscious in the ICU.

We did not have the opportunity to really get to know your aunt and we regret that. However, thanks to her family members, we could see that she was a kind and brave woman and we did our best to care for her and help her with kindness and respect.

3. Recognize the family member.

You were very present during his stay, ready to assist and be present for your brother. In my experience as a physician, I believe that the presence and support of a family member brings peace and serenity to those who are at the end of life.

4. Offer help.

I remain at your service if you wish to ask any questions or simply discuss your brother's stay in intensive care. Please feel free to call us at [telephone number].

5. Express your sympathy (conclusion).

We send you our warmest thoughts,
Dr. Doe.

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