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Dois Estudos sobre os Efeitos do Luto e do Stress Traumático: na tragédia de Entre-os-Rios e no contexto de trabalho

Dissertação apresentada no Instituto Universitário de Ciências da Saúde

RESUMO

O luto e o trauma são indissociáveis da condição humana. Não há perda sem trauma e não há trauma sem perda.

Desta forma, a presente dissertação explora a temática do luto e do trauma através de dois manuscritos trabalhados ao longo deste ano: *"Long Term Effects of Entre-os-Rios Tragedy on Grief and Traumatic Stress Symptoms"* e *"Effects of Grief and Posttraumatic Stress on Productivity"* – o primeiro tem por base uma dissertação que relaciona o número de perdas e a ausência de cadáver, no desastre de Entre-os-Rios, com o aumento do risco de luto prolongado e traumático, a longo prazo; o segundo, é um estudo que pretendeu comprovar a relação entre os sintomas de luto e de perturbação de *stress* pós-traumático na produtividade laboral.

Em comum, estes estudos clarificam o impacto do sofrimento das perdas, tantas vezes escondido, omitido e dissociado. Esta clarificação facilitará a consciência dos fatores mais relevantes em intervenções de carácter preventivo.

ABSTRACT

Grief and trauma are indissociably of the human condition. There is no loss without trauma and there is no trauma without loss. Therefore, this Dissertation explores the theme of the effects grief and trauma under two manuscripts: *"Long term effects of Entre-os-Rios tragedy on grief and traumatic stress symptoms"* and *"Effects of Grief and Posttraumatic Stress on Productivity"* – the first is a revision of a Dissertation, relating multiple losses and the absence of dead body, in *Entre-os-Rios* disaster, with the long-term risk increase of prolonged and traumatic grief; the second is a study that aimed to demonstrate the relation between the grief and post-traumatic stress disorder symptoms in work productivity.

In common, these studies clarify the impact of trauma and losses, many times ignored or dissociated. This clarification will enable the awareness about most relevant factors on defining new preventive interventions.

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Índice Geral

Índice de anexos

I. Introdução

O luto e o trauma são indissociáveis da condição humana. Não há perdas significativas sem trauma e não há trauma sem consequências.

O momento do nascimento é a primeira experiência de luto e de trauma pela qual cada ser humano passa – o trauma da "violência" do parto *per si* e o luto da separação de um corpo que mesmo continuando lá, deixa de ser nosso. E a partir daí, vamos formando a nossa personalidade numa sucessão de perdas e de traumas, lidando com as mudanças a nível biológico, psicológico e/ou social a acontecimentos que implicam um empenho adicional para garantir o equilíbrio ou estabilidade emocional – e nem sempre as pessoas têm disponíveis as estratégias de *coping* necessárias para uma resiliência profícua a todas e quaisquer crises.

A morte de um ente querido é algo para que o ser humano não está preparado, mesmo que seja um fim anunciado – no colapso da ponte de Entre-os-Rios, a dimensão e imprevisibilidade do desastre vai ficar na memória dos Portugueses durante muitos anos, mas, especialmente, para estas pessoas enlutadas – famílias em que se perde mais de um ente querido e, principalmente, com a ausência de cadáver, um corpo que se possa velar, chorar e enterrar, o trauma e o luto são ainda mais exacerbados.

O manuscrito *"Long term effects of Entre-os-Rios tragedy on grief and traumatic stress symptoms"* submetido ao *Journal of Death Studies*, tem como ponto de partida a dissertação *"Ausência de cadáver enquanto fator de risco para luto complicado: o caso da tragédia de Entre-os-Rios"*, realizada em 2011, pela Lúcia Ferreira. A partir dos resultados obtidos nessa investigação, foram recalculados os valores e foi feita uma revisão bibliográfica mais atual e que sustentasse os efeitos a longo prazo dos sintomas de luto prolongado e de perturbação de stress pós-traumático. A ausência de cadáver acabou por se revelar um fator preditivo para a exacerbação de sintomatologia traumática, o que conduziu à redação deste artigo em co-autoria com os professores José Carlos Rocha, Manuela Leite e Vera Almeida.

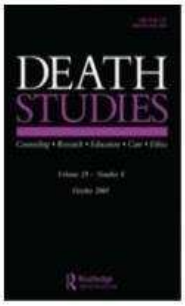
Aquando de um processo de perda, seja a morte de um ente querido, o divórcio ou uma doença crónica, todos eles têm algo em comum: originam sintomas de luto. Quando se considera a frequência com que os trabalhadores podem ser afetados por situações idênticas a estas, começa a perspetivar-se a magnitude do sofrimento escondido nos locais de trabalho. Considerando que o sofrimento não é algo que as pessoas podem "ligar e desligar" conforme o seu horário laboral e uma vez que estas passam metade do seu dia no local de trabalho, não é de estranhar que quando o sofrimento as afeta, afete de igual modo o seu trabalho e produtividade.

Partindo desta premissa surge o manuscrito *"Effects of Grief and Posttraumatic Stress on Work Productivity"* – este artigo baseia-se num estudo realizado a 125 trabalhadores, escolhidos por conveniência, e que demonstrou que os sintomas de luto e de perturbação de stress pós-traumático interferem na produtividade laboral, nomeadamente no presentismo e nas percas de produtividade, e mais especificamente ao nível do processo de tomada de decisão, de comunicação e de relacionamento com os outros. O impacto destes sintomas na atividade laboral conduz aos fatores de risco psicossociais, que comprometem o bem-estar dos trabalhadores e que acarretam inúmeros custos económicos para as organizações. Este manuscrito está preparado para submeter no *Work & Stress: An International Journal of Work, Health & Organisations*.

No âmbito deste trabalho foi também submetido um *poster* para a 12th European Academy of Occupational Health Psychology Conference, que decorreu em Atenas, entre 11 e 13 de abril de 2016, com o título *"Does PTSD and Grief have effects on productivity?"* (Anexo 2), que foi aceite.

II. Manuscrito: *Long-term effects of the Entre-os-Rios tragedy on grief and traumatic stress symptoms*

Death Studies



Long-term effects of the Entre-os-Rios tragedy on grief and traumatic stress symptoms

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Long term effects of Entre-os-Rios tragedy on grief and traumatic stress symptoms

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IINFACTS, CESPU

ABSTRACT

In 2001, in Entre-os-Rios, a Portuguese village, a bridge fell on Douro River, all 59 passengers, from one bus and three cars, died and 36 bodies have never been recovered. This study aims to reveal the cumulative risk from multiple losses and unrecovered bodies for prolonged grief symptoms based on 20 persons bereaved by this tragedy, 10 years after, comparing with grievers from road accidents. A quantitative, cross-sectional, exploratory and comparative study was carried out with a sample of relatives of victims of the tragedy of the Entre-Rios (n=20) in which at least one dead body was not recovered (experimental group) and a sample of relatives of victims of road traffic accidents (n= 20), with the same time from bereavement (control group). The prevalence of prolonged grief in the former, measured with the Inventory of Complicated Grief (ICG>30), was 95%. The prevalence of traumatic stress, measured with the Impact Event Scale-Revised (IES-R>35), was 70%. The associated factors of multiple losses and unrecovered bodies increase the long-term risk (RR=1.6 to 2.8) of prolonged and traumatic grief. We can conclude that the absence of body is an important factor in the process of complicated and traumatic grief.

KEYWORDS: prolonged grief, traumatic stress, long-term effects, unrecovered bodies

The tragedy of Entre-os-Rios took place on 4 March 2001, at 9.10 pm, with the collapse of the fourth pillar of the century-old Hintze Ribeiro bridge, located in northern Portugal. One bus carrying 53 people and three cars with a total of 6 people fell to the Douro river below, killing 59 people (29 females and 30 males), 7 of whom were children. Just 23 of their bodies were recovered: 6 of them within the bus and 2 in a car; 15 bodies which were washed down the river later appeared on the Galician coast. The bodies of the remaining 36 people were never recovered. This tragedy is characterized as an unexpected loss, with multiple family members involved and mostly with unrecovered bodies.

The grief experience is an intrinsic and individual process, however, it is universal to all people, and it affects the physical, psychological and social well-being of the bereaved (Castro & Rocha, 2013), most of whom tend to experience strong emotions, a feeling of unbalance and cognitive decline in performing their roles (Currier, Neimeyer & Berman, 2008). Grief is a major crisis that people will face throughout their lives; however, it is a transition process that involves several changes in its course. When processing their grief experience, each person goes through a process of adaptation to the loss and to the meaning that it has in their lives (Twicross, 2001). It is considered a process of relearning how to live in an environment in which the lost, either a person or something else, no longer exists, and readjusting to the change caused. In this process the bereaved experience psychological, behavioural, physiological and social reactions inherent to a significant loss (Rando, 1993).

A bereaved person is deemed to have a maladaptive adjustment to loss when their symptoms last at least six months and involve functional impairment; this is a case of prolonged grief (Lobb *et al.*, 2010). About 10% to 20% of the bereaved develop prolonged grief, meaning that integration of the loss does not occur and grief will be prolonged (Rynearson, Favell, & Saindon, 2002). The symptoms of prolonged grief include a marked separation distress, where the griever continues to look for the deceased and to have recurrent intrusive thoughts about him or her, feeling an unbearable longing and loneliness, as well as feelings of disbelief about the death, suspicion, anger, shock, detachment from others and resistance to accept the harsh reality (Lobb *et al.*, 2010) – prolonged grief includes both intense and persistent symptoms (Jacobs, Mazure, & Prigerson, 2000). In prolonged grief, unexpected reactions may occur, or even no symptoms of grief. According to Rando (1993), there are three main reasons for the griever not to accept or recognize the death of a loved one after a period of time that is considered acceptable: (1) the griever does not have the necessary confirmation of the loved one's death (for example, when there is an absence of the corpse or, for any reason, the griever did not see the corpse); (2)

evidence for the confirmation of death exists, but the griever may deny the reality or refuse to accept it; (3) the griever has access to, but prefers to avoid, the obvious confirmation of death (for example, a bereaved who refuses to see the body of the deceased). Risk factors for prolonged grief are related to: how death occurred, in particular, violent and sudden unexpected death (for example, car accident); gender; relationship and dependence level with the deceased; and the availability of social and emotional support from family and friends (Lobb *et al.*, 2010). Apart from these factors one should also consider the unexpected aspect of the death, whether by natural or accidental causes, adverse events during the griever's childhood, the type of attachment and, not consensually, the number of previous losses he or she has experienced (Castro & Rocha, 2013).

Grief is considered traumatic when it is brought about by sudden death, whether violent or accidental, where the bereaved not only experience grief reactions, but also trauma and stress (Neria & Litz, 2004). Additionally, they have to deal with the death and with the resulting post-traumatic stress of traumatic loss, which can interfere with the grieving process (Neria & Litz, 2004). A violent and unexpected loss leads to greater psychological vulnerability of the bereaved, whose reactions include: high levels of anxiety, avoidance of situations and thoughts that evoke the loss and the traumatic scene and eventually symptoms of post-traumatic stress disorder (PTSD) (Neria & Litz, 2004). These grief reactions tend to be more intense and lasting, since many bereaved persons have difficulty accepting the loss, contributing to their chronic grief (Parkes, 1996). Traumatic events involving a large number of victims, such as natural disasters, leave a large number of bereaved persons, shatter and blow away entire family relationships, and involve whole communities in grieving. In these situations, in particular, it is important to identify and treat prolonged grief situations as early as possible (Shear, Jackson, & Essock, 2006).

Faced with a tragedy that so negatively marked Portuguese society in 2001, where 61% of the bodies were not recovered, the main objective of this study is to describe the long term (10 years after) effects of the Entre-os-Rios tragedy for the bereaved concerning prolonged grief, PTSD and other aspects related to adjustment to the absence of the corpse. Considering the specificity of this catastrophe, we aim to clarify the cumulative risk for psychological outcomes of multiple losses and unrecovered bodies versus "simple" unexpected, violent loss situations, comparing the relative risk of this group with a control group of bereaved persons who did not experience absence of the corpse.

METHODS

This research is a quantitative, cross-sectional, exploratory and comparative study. To conduct a reliable research study on the topic, two groups are compared: the experimental group (EG) – bereaved family members of the victims of the tragedy of Entre-os-Rios, for whom the body of at least one family member was not recovered – and the control group (CG) - bereaved family members of victims of traumatic deaths (car accidents) in which the bodies were recovered.

Was made a statistical analysis using the SPSS software, version 19.0 for Windows, was held the Student t test for independent samples.

Sample

After informed consent procedures, 40 participants were included in the two groups: EG (n=20) and CG (n=20). The inclusion criteria for the EG were: (a) being immediate family member of victim(s) of the tragedy; and (b) at least one unrecovered body. For the CG, the inclusion criteria were: (a) being immediate family member of road accident victims; (b) the death occurred between 8 and 12 years ago; and (c) the body of the deceased family member was recovered.

The EG was formed by contacting the association "*Associação dos Familiares das Vítimas de Entre-os-Rios"*, with data collection between April and July 2011. Of the 50 grievers contacted, 30 declined to participate, because they consider too painful to remember what has happened.

The average age of participants, shown in Table 1, for EG was 44.20 years old (SD=14.22), the youngest was aged 16 and the oldest aged 73 years. In the CG, the average age was 46.25 (SD=18.12), the youngest was aged 26 and the oldest aged 65 years. In the EG, the majority of the participants were female (n=12), representing 60% of the sample, and only 40% of the participants were male (n=8). In the CG, an even greater majority of the participants were female (n=16), representing 80% of the sample, and only 20% of the participants male (n=4).

(Insert Table1)

Measures

A semi-structured interview was developed for the EG and adapted for the CG. The information obtained was grouped into two categories: demographic data (age, gender, marital status, residence, profession and education level) and history of losses (EG: number of losses in the tragedy, the family kinship, number of unrecovered bodies, the importance attributed to performing burial ceremonies, the importance of the existence of a grave, psychological and/or psychiatric support and reported need for psychological support ten years after the tragedy; GC: kinship, time from loss, cause of death, importance attributed to funeral ceremonies, psychological and/or psychiatric support and reported need for psychological support).

The Inventory of Complicated Grief (ICG) (Prigerson, Maciejewski, Reynolds, & Newsom, 1995), adapted for the Portuguese population by Frade (2009), evaluates the current symptomatology for prolonged grief and differentiates patients who are experiencing prolonged grief from those with normal grief. In the present study we applied a cut-off value ≥30 for complicated grief and <30 for normal grief. This cut-off value was changed from the original instrument; in the study of Sousa et al. (2013) the cut-off point of the Portuguese version of the ICG was calculated based on a diagnostic interview for prolonged grief.

The Impact of Event Scale-Revised (IES-R) (Weiss & Marmar, 1997, adapted by Castanheira, Vieira, Glória, Afonso & Rocha, 2006) evaluates the current traumatic symptomatology of the bereaved and determines the level of traumatic stress (in the present study we applied a cut-off value of IES-R ≥35 Post-traumatic Stress Disorder) (Lopes, Rocha, Bastos, Frade, Ferreira, Afonso, & Pacheco, 2013).

RESULTS

Prolonged Grief

The average total ICG value for the EG is 48.00 (*S.D.*=14.19), while CG presents 36.05 (*S.D.*=11.48), and this difference is significant ($t(38)=2.93$; p<0,006). 90% ($n=18$) of the EG present symptoms related to complicated grief and only 10% ($n=2$) do not present prolonged grief. For the CG, we observe 55% ($n=11$) with prolonged grief and 45% ($n=9$) without. When analysing the subscales of the ICG, we found statistically significant differences in the subscales *Separation Difficulties* (EG with $M=15.40$ and CG with $M=11.10$ ($t(38)=2.83$, p<0.01) and *Denial and Anger* (EG

with *M*=13.20 and CG with *M*=8.30 (*t*(38)=3.49; p<0.01); however, differences between groups in the subscales of *Traumatic difficulties*, *Psychotic* and *Depressive* symptoms are not statistically significant.

(Insert Table 2)

Members of the EG are more likely than the CG to have prolonged grief; the Relative Risk is 1.6 times higher for the EG (CI 95%, 1.1–2.5).

Traumatic Stress

The results of the IES-R (Weiss & Marmar, 1997) present an average of 46.20 (*S.D.*=17.83) for the EG, and 26.40 (*S.D.*=16.25) for the CG; this difference is significant (*t*(38)=3.67; p<0,001). Thus, 70% (*n*=15) of EG participants have symptoms above the cut-off value for PTSD, compared with 25% (*n*=4) of the CG. Comparing prevalence in the groups, members of the EG are 2.8 times more likely to have PTSD than the CG (CI 95%, 1.2–6.3). When analysing the IES-R subscales, there are statistically significant differences in Intrusive Thoughts (EG *M*=2.42, CG *M*=1.33 (*t*(38)=4.06; p<0.000)), Avoidance (EG *M*=1.68, GC M=1.16 (*t*(38)=2.17; p<0.036)) and Hypervigilance (EG *M*=2.24, CG *M*=1.08 (*t*(38)=3.71; p<0.001)) (see Table 2).

The multiple regressions (Table 3) clarify the relative value of both and sequentially the number of losses in the accident and the number of unrecovered bodies. The inclusion of the number of unrecovered bodies improved the models, particularly for PTSD symptoms. Nevertheless, the two variables could predict between 27.7% and 20.3% of the total PTSD and Prolonged Grief (PG) symptoms.

(Insert Table 3)

Semistructured interview

For the EG 90% (*n*=18) of those interviewed report that it would have been important to recover the bodies, to carry out the funeral and to have the opportunity to say goodbye. Regarding the importance of having a grave where they knew that the bodies of their relatives were buried, 85% (*n*=17) responded positively and only 5% (*n*=1) answered negatively. In the CG, all

participants considered it important that the bodies of their loved ones had been buried. As for the question, *"Ten years after the loss do you still think of the accident as a nightmare?"*, 40% (*n*=8) of the EG responded *"always"* and 65% (*n*=13) of the CG answered *"rarely"*. A return to normal life as it was before the tragedy is reported by 85% (n=17) of respondents in the CG but just 30% (*n*=6) of the EG. Concerning the need for psychological support for themselves or their family ten years after the tragedy, 50% (*n*=10) of the EG reported that they need it and in the CG, 90% (*n*=18) answered that they had no need for psychological support.

(Insert Table 4)

DISCUSSION

The results clarify the very high level of prolonged grief and PTSD symptoms in the Entre-os-Rios sample (EG) compared with the control group (CG). Despite the deaths of family members of the CG being equally violent and unexpected, the unique characteristics of the EG, with multiple losses in the same family and the absence of bodies, carries an extremely worrying family breakdown, which manifests itself in terms of mental health and social functioning for the bereaved. Additionally, it should be noted that the extensive media coverage and repeated court hearings of this catastrophe may have had cumulative effects. More difficult to explain is the specificity of the differences in the prolonged grief symptoms of separation distress, denial and anger.

In addition to the common factor of unexpectedness, the absence of a dead body for the EG may increase the risk of traumatic bereavement. In this respect the bereaved in the EG were unique in Portugal, where there are no records of an accident with these specific conditions and with so many deaths. Multiple losses from the same family may also increase the risk of cumulative effects due to experiencing several simultaneous grief processes - the results achieved by the EG in the ICG and the IES-R which show a higher relative risk for prolonged grief (RR: 1.6) and for PTSD (RR: 2.8) compared with the CG.

This study presents some limitations. The first refers to the specificity of the Entre-os-Rios disaster, where many families suffered multiple losses, and the difficulty in finding a control group with the same level of multiple losses. This aspect limits the capacity of the analysis to clarify whether the effects were related to the absence of a body or to multiple losses. Other

limitation is the relationship to the deceased could not be controlled for, for example, the loss of a son to a mother may be more difficult to handle than the death of a brother. For future and further studies, we recommend a search for other comparable disasters to verify the relative weight associated with multiple losses or unrecovered bodies as risk factors for both prolonged grief and PTSD. Another limitation is the fact that there is no baseline assessment in the first moments after the disaster; if this assessment had occurred it would have been possible to compare the immediate and the long-term effects on a prospective basis, predicting the evolutionary outcome.

The high mental morbidity found ten years after this tragedy could be explained by the lack of an adequate response concerning the impact of the event, in terms of social support networks or of psychological first aid. Thus, this study strengthens the need for structured interventions for psychological first aid, enabling immediate, planned and organized responses on the ground that can buffer the emotional impact in the short, medium and long term. In fact, today there is already an increased awareness of the role of psychologists and psychology in emergency situations.

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TABLE 1

Sociodemographic data of the EG and CG

		EG		CG	
		n	**%**	*n*	**%**
Gender	Female	12	60	16	80
	Male	8	40	4	20
Marital Status	Single	4	20	4	20
	Married	15	75	14	70
	Consensual union	1	5		
	Divorced			1	5
	Widower			1	5
Occupation	Primary sector	3	15	2	10
	Secondary sector	9	45	9	45
	Tertiary sector	2	10	7	35
	Unemployed	1	5		
	Retired	4	20	2	10
	Student	1	5		
Qualifications	Primary education	5	25	6	30
	Secondary education	15	75	13	65
	Higher education				15
Unrecovered bodies	1	5	25		
	2	6	30		
	3	5	25		
	4	1	5%		
	>7	3	15%		

TABLE 2

Results of the IES-R and ICG for EG and CG

		EG		CG		EG CG	EG CG
		M	*SD*	*M*	*SD*	*t(38)*	*p*
ICG	Traumatic	9.60	3.68	8.35	2.87	1.20	.238
	Separation	15.40	5.02	11.10	4.59	2.83	.007*
	Denial and anger	13.20	4.83	8.30	4.01	3.49	.001*
	Psychotic	3.65	2.11	2.70	1.17	1.76	.087
	Depressive	5.55	2.21	5.60	1.19	-.09	.929
	Total	48.00	14.19	36.05	11.48	2.93	.006*
IES-R	Intrusive	2.42	0.90	1.33	0.80	4.06	<.001***
	Avoidance	1.68	0.82	1.16	0.70	2.17	.036**
	Hyperarousal	2.24	1.13	1.08	0.82	3.71	.001*
	Total	46.20	17.83	26.40	16.25	3.67	.001*

(*p <0.01; **p <0.05; ***p <0.001)

TABLE 3

Hierarchical multiple regressions for PTSD and PG with two blocks considering the number of losses and the number of unrecovered bodies

	Number of losses		Number of unrecovered bodies	
	β PTSD	*β* PG	*β* PTSD	*β* PG
Number of losses	0.416	0.377	0.157	0.178
Number of unrecovered bodies	-	-	-0.413	-0.317
R^2	.173	.142	.277	.203
ΔR^2	,173	.142	.103	.061
$F\ \Delta R^2$	7.97**	6.31*	5,28*	2.82

(*p < .05. **p < .01. PG - prolonged grief. PTSD ¼ posttraumatic stress-disorder)

TABLE 4

Results Structured Interview EG and CG

		EG		*CG*	
		N	*%*	*N*	*%*
Do you still feel it would be important to find the bodies?	Yes	18	90		
	No	0	0		
	Maybe	2	10		
Would you consider relevant to have a place where you knew bodies where there?	Yes	17	85		
	No	1	5		
	Maybe	2	10		
It was important to you be able to perform the funeral?	Yes			20	100
	No			0	0
After all this time, you still think at all like a "nightmare"?	Never	2	10	0	0
	Few times	2	10	13	65
	Many times	6	30	2	10
	Almost always	2	10	3	15
	Always	8	40	2	10
Do you feel functioning as well as before the tragedy?	Yes	6	30	17	85
	No	14	70	3	15
Do you think Psychological support would be still important for you?	Yes	10	50	2	10
	No	6	30	18	90
	Maybe	4	20		

III. Manuscrito: *Effects of Grief and Posttraumatic Stress on Work Productivity*

Effects of Grief and Posttraumatic Stress on Work Productivity

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ABSTRACT

Grievers and traumatized workers frequently report lack of motivation and decrease of productivity with natural challenges to define the best way to integrate such experience. The specific connections between stress related symptoms (grief or traumatic stress) have not been clarified not even stablish clearly. We aim to verify the relationship between Grief and Posttraumatic Stress Disorder (PTSD) symptoms with worker productivity and its specific impact. Questionnaires were applied to 125 workers included: Inventory of Complicated Grief (ICG), Life Events Checklist (LEC), The Impact of Event Scale-Revised (IES-R) and Work Productivity and Activity Impairment Questionnaire: General Health (WPAI-GH V2.1). Sociodemographic data was also collected.

There is a positive correlation between WPAI-GH Work productivity loss and Grief (r=.22) and PTSD symptoms (r=.19), with different patterns of impact considering leadership role and public attendance functions. There are specific effects on several areas: interpersonal communication, relationships with others and decision-making process.

It provides evidence to explain mental health link on productivity loss and suggests further research on the underlying factors. Grief and PTSD symptoms do not have correlations with absenteeism, but correlate with the impact on the work, especially on productivity impairment. This reinforce the need for training on trauma/grief-informed worplaces.

KEYWORDS: Grief, PTSD, Work Productivity loss, Trauma/grief-Informed workplaces.

Loss, grief, stress and potentially traumatic situations are realities that all people are exposed, at some point in their lives - considering that workers spend on average eight hours a day in the workplace, it is expected that these situations have effects not only on a personal level, but also on a work performance level.

In the past years, it has been studied the relationship between the health conditions (physical and psychological) and work performance. The main conclusion refers *"that health conditions increase work-related absences (absenteeism) and/or decrease productivity while at work (presenteeism)"* (Hilton, Holden, Schuffman, Vecchio, Ware & Whiteford, 2011, p.1). The mourning for a family member is the second most common cause affecting work performance. If we increase the concept of loss for a divorce, family or financial crises or even the death of a pet, it is possible to observe the same impact (O'Connor, Watts, Bloomer & Larkins, 2010), through higher incidence of job-related injuries, accidents, and overall lost productivity (O'Connor, *et.al.,* 2010). Similarly, it's increasing recognition that *"work disability is a common and serious consequence of posttraumatic stress disorder (PTSD)"* (Wald, 2009, p.312).

Grief and potentially traumatic situations constitute psychosocial risk factors, since compromise worker's psychological or physical well-being, resulting from the interaction between the policy and management of work, in organizational and social context (Jain & Leka, 2010). In the last years, there were significant changes in the labour environment, not only regarding the nature of the work itself, characterized by *"an increased emphasis on knowledge and informed-based work"* (Bailey, Dollard, Skinne & Tucke, 2007, p.2), but also in terms of work conditions, where one started to acknowledge the psychosocial risk factors such as job security, work intensity, violence and bullying (Bailey, *et.al.*, 2007). The work conditions have been saw as increasingly worrying both for countries and labour markets, existing, nowadays, a common legal base for workers security and health in the members states of EU, above all Directive 89/391/CEE (OMS, 2008).

The grief experience is an intrinsic and individual process with overlapping features among all individuals, affecting the physical well-being, psychological and social of the bereaved (Castro & Rocha, 2013), since most of the bereaved tend to experience strong emotions, feeling of unbalance and cognitive decline in the performance of their roles (Currier, Neimeyer & Berman, 2008). When people experience severe and unresolved grief reactions, characterized by intense and persistent symptoms, like separation distress and multiple cognitive, behavioural and emotional difficulties, they are considered under Prolonged Grief (Currier, Holland & Neimeyer, 2012; Sunoo & Sunoo, 2002). Studies have shown that prolonged grief symptoms may cause major

physical and/or emotional problems (Sunoo & Sunoo, 2002), impairments in social and personal functioning, such as activity restriction and decreased quality of life (Currier, Holland & Neimeyer, 2012), and half of people affected were in the workplace during the grieving period (Sunoo & Sunoo, 2002). The evaluation of grieving process depends on *"individual's personality, nature of the change-loss and the degree of employer support received"* (Sunoo & Sunoo, 2002, p.395), because *"when grief behaviour is addressed compassionately, bereaved employees can reach a point of acceptance and healing"* (Sunoo & Sunoo, 2002, p.395). Prolonged grief should receive clinical attention as it may cause symptoms similar to major depression, posttraumatic stress, sadness, insomnia and anorexia, with a chronic evolution implying a great deal of suffering and considerable healthcare and productivity work costs (Barreto-Martín, Pérez-Marín &Yi, 2012).

During human development is common the exposure to traumatic and stressful events and studies have shown that *"more than two thirds of the general population are likely to be exposed to trauma in their lifespan"* (Neria, Nandi & Galea, 2008, p.467). Violent and traumatic situations may increase the development of mental disorders, like posttraumatic stress disorder (PTSD). This disorder is categorized as a chronic disabling condition (Balayan, Kahloon, Tobia, *et al.,* 2014) and, according to the DSM-V, the characteristic symptoms are: *"re-experience of the trauma (intrusive thoughts, flashbacks, and nightmares), emotional avoidance/numbness (avoidance of memories of the traumatic event) and autonomic hyperstimulation (hypervigilance and sleep disorders)"* (Medeiros, *et al.*, 2015, p.2). With the DSM-V the avoidance and numbing concepts were separated and *"latter was included under the expanded additional new criterion of negative alterations of cognitions and mood"* (Balayan, *et al.,* 2014, p.215).

For a long time, most of the studies on work productivity and activity impairment were focused on direct costs, such as the cost of the medication, hospitalizations or visits to doctors (Wahlqvist, *et al.,* 2007). However, to measure the relationship between worker´s productivity and health issues, it is necessary to consider productivity losses associated with absence from work and time of work due to disability (Wahlqvist, *et al.,* 2007), considering other aspects such as particular aspects of work productivity, at a particular point in time, for a particular person (Lynch, *et al.,* 2001). When we analyse productivity losses, it is necessary to measure *"reduced productivity due to an illness while at work or while carrying out daily activities other than work"* (Wahlqvist, *et al.,* 2007, p386). Psychological diseases, like depression, prolonged grief, PTSD, anxiety, burnout, among others, have been increasingly required health care utilization, as well as significant absenteeism and impaired productivity (Asami, Goren & Okumura, 2015; Holden, 2010; Sunoo & Sunoo, 2002). To measure worker productivity, the majority of instruments pass through

self-reporting instruments of workers, which allows not only to measure, but also to assess the impact of symptoms/psychological disorders and/or treatment on productivity *"as traditional patient-reported outcome instruments"* (Wahlqvist, *et al.,* 2007, p.386).

The main objective of this study was to investigate further the relationship between grief and PTSD symptoms and productivity loss in a heterogeneous and representative sample of workers.

METHODS

This research study is a quantitative, cross-sectional, exploratory and comparative study. 125 employees of different working areas were invited to participate in this study by completing a questionnaire. The questionnaire collected information on sociodemographic data, complicated grief and traumatic symptomatology, work productivity and activity impairment.

Sample

As a research tool of this study, 125 people were invited to participate, in a "snow ball" process. In the constitution of the sample, the inclusion criteria were: a) be 18 or more years old; and b) have a remunerated work activity.

The average age of the participants was around 38 years old (M=38.7, SD= 10.8), being the youngest person 18 years old and the oldest 66 years old. The majority of the participants were female (n=77), thus representing 62% of the sample, and 38% of the participants were male (n=48). Forty-five percent of the participants (n=56) were married, 31% were single (n=39), 16% lived in relationship similar to marriage (n=20), 6% were separated/divorced (n=7) and 2% were widower (n=3).

In terms of academic qualifications, 39% of the participants had further education (n=49), 35% of the participants had bachelor degree (n=44), 10% of the participants had primary education (n=12), 9% of the participants had secondary education (n=11), 6% of the participants had master degree (n=8) and 0.8% of the participants had doctoral degree (n=1).

90% (n=113) of the participants had a full-time job (30 hours or more per week) and 10% (n=12) of the participants had a part-time job (less than 30 hours per week). 84% of the

participants worked for others (*n*=105), 8% of participants were self-employed (*n*=10) and 8% of the participants had their own business (*n*=10). 88% of the participants (*n*=110) had a boss or a supervisor, 89% of the participants (*n*=111) worked within a team, 33% (*n*=41) of the participants had a coordination, management or team supervision role and 67% (*n*=84) of the participants dealt with clients or customers. In terms of hours worked last week and per week the results are equal: 39% (*n*=49) of the participants refer 40 hours.

Considering the satisfaction with their working environment, in a scale between 0 and 10, the average is 6.58 (SD= 1.94). On the same scale, for satisfaction with their work functions the average is 7.06 (SD= 2.18).

In terms of health, 8% of the participants report a chronic disease (*n*=10) and 6% of the participants had a psychiatric disorder (*n*=8). 83% of the participants report a significant loss (*n*=104) and 18% of the participants experienced a potentially traumatic situation (*n*=23).

Measures

A script of a semi-structured interview was developed to check the sociodemographic data (gender; marital status; qualifications; existence or not of paid work; works at: part-time (less than 30 hours per week) or full time (30 or more hours per week); employment system: worker independent or work for others?, have any boss/supervisor?, you work within a team?, performs some coordination function/management/supervisory staff?, deals with customers and/or suppliers?, how many hours on average per working week?, how many hours worked last week?; health condition: have any chronic illness?, have a history of psychiatric/psychological disorder?), history of significant losses (have you ever lost someone you consider significant in your life? (degree of relatedness, how long?, age of deceased, what is the importance of the deceased in your life?, deceased's role in your life?, nature/cause of death?, impact at work)) and history of potentially traumatic events (have you ever experienced some potentially traumatic situation?, what happened?, where it occurred?, how long? have been other people involved in the situation?, know/knew that person/people?, impact at work).

The Inventory of Complicated Grief (ICG) (Prigerson, Maciejewski, Reynolds, & Newsom, 1995, adapted for the Portuguese population by Frade, 2009) evaluates the current symptomatology for complicated grief, and differentiates patients who are experiencing these symptoms from those who are not (≥30 complicated grief; <30 Normal grief - this cut-off point

was changed from the original instrument. The study Sousa et. al (2013) calculated the cut-off point of the Portuguese version of the ICG, based on a diagnostic interview for prolonged grief).

The Life Events Checklist (LEC) (Blake, Weathers, Nagy, Kaloupek, Charney, & Keane, 1995, adapted by Rocha, Sá, Almeida, Chilembo, & Silva - Portuguese research version 0.2; 2013), is a brief screening instrument that is used to evaluate the candidate's experience in a wide array of traumatic experience such as accidents, disasters, sexual or physical assaults, or combat related exposures (Hwallip, Kim, Koh, Kim, *et al.,* 2008).

The Impact of Event Scale - Revised (IES-R) (Weiss & Marmar, 1997, adapted by Castanheira, Vieira, Glória, Afonso & Rocha, 2006) evaluates the current traumatic symptomatology of the bereaved and determines the level of trauma among groups of people (IES-R ≥35 Post-traumatic Stress Disorder (PTSD) (Lopes, Rocha, Bastos, Frade, Ferreira, Afonso, & Pacheco, 2013).

The WPAI-GH (Work Productivity and Activity Impairment – General Health) questionnaire measures *"the effects of health in general and specific symptoms on work productivity and outside of work"* (Ciconelli, Ferraz, Kowalski & Soarez, 2006, p.325). This instrument can identify absenteeism (the percentage of work time missed because of one's health in the past 7 days) and presenteeism (the percentage of impairment experienced while at work in the past 7 days because of one's health). The productivity loss is, therefore, the total work impairment, calculated as the sum of absenteeism and presenteeism (Ciconelli, *et al.,* 2006; Asami, *et al*, 2015).

RESULTS

According to Table 1, grief is significantly correlated with presenteeism, activity impairment, work productivity loss, and the score of the work performance impact, whereas PTSD is significantly correlated with presenteeism, activity impairment, and work productivity loss. For PTSD, the highest correlation is reported for activity impairment. PTSD is not significantly correlated with the score of the work performance impact, and both PTSD and grief do not show significant correlation with absenteeism.

(Insert Table 1)

Scores of PTSD symptoms didn't reveal effect on work specific impact. However, grief symptoms have impact on decision-making, communication and relationship.

(Insert Table 2)

To determine the specific impact of suffering from Prolonged Grief, it was used the ICG cut-off value of 30, and 19 individuals scored above the cut-off. This analysis was performed using the Student t test, however, because they are few participants made up the Mann-Whitney test. The obtained results showed significant losses in people suffering from Prolonged Grief, if compared with people in process of "normal" Grief. The results of WPAI were significantly different in all the analyses fields, excluding the absenteeism.

(Insert Table 3)

Regarding the effects of grief in people that carried out functions of coordination, management or teams supervision, in comparison with people that have not done that, data have shown that those without the referred responsibilities manifest significant differences in presenteeism, work productivity loss and activity impairment. Comparing people that have to deal with public and people that do not do it, there are significant differences in presenteeism, work productivity loss and activity impairment.

(Insert Table 4)

In the effects of PTSD symptoms, the results are more expressive towards presenteeism, work productivity loss and activity impairment considering people that do not execute functions of coordination, management or teams supervision. On the other hand, considering people that interact with clients or suppliers, the effects of PTSD are more relevant in terms of activity impairment, also being noticed some importance in terms of presenteeism.

(Insert Table 5)

DISCUSSION

Grief (and especially Prolonged Grief) and PTSD have an impact on work productivity, being the effects of those psychosocial stressors more significate in people with a smaller degree of decision, if compared with people that have coordination, management or teams supervision role. The grief and PTSD symptoms show themselves, especially considering decision-making, communication and relationship.

With our study, it is clear the need and urgency to evaluate and intervene on psychosocial risks with impact in worker's physical and mental health, as the changes in nature and intensity of psychosocial stressors originate high economical and human costs (Bailey, *et.al.*, 2007). When the worker is psychologically debilitated due to a loss or a potentially traumatic situation, the quality of his work becomes compromised, productivity is reduced, and the effects are expressed more in terms of presenteeism than in terms of absenteeism. Presenteeism is, therefore, is a "silent" indicator, because the workers do not miss, but the quality of the labour deteriorates, the work accidents increase, with prejudicial effects in the worker's health and with greater costs to the company, higher than the costs of absenteeism (Dennett, Jacobs, Ospina, Thompson & Waye, 2015).

In order to circumvent the economic, social and emotional effects of grief and PTSD symptoms observed in this study, it is necessary to intervene. There are some studies that have described the economic impact and consequences associated with the implementation of grief/trauma interventions (Comans, Scuffham & Visser, 2013; Hodgins, 2014; Sunoo & Sunoo, 2002; Keegel, Lamontagne, Landsbergis, Louie & Ostry, 2007; Blonk, Dijk, Klink & Schene, 2001; Bonato, Cheng, Cimo, Dewa & Stergiopoulos, 2011; Bossche & Houtman, 2003). In general, these programs are designed to promote optimism and better teamwork, creating principles to support and improved them, and encouraging less sick leaves and less turnover (Sunoo & Sunoo, 2002).

Any intervention to prevent or minimize the effects of grief and PTSD symptoms goes through the building of a trauma/grief-informed workforce. Trauma/Grief-Informed care indorses that organizations should work on the principle that all workers may, at some point in their lives, be involved in a potentially traumatic situation or loss (Green, Kusmaul, Mendel, Nochajski & Wolf, 2014). By knowing that traumatic and loss experiences and their *"sequelae tie closely into behavioural health problems, front-line professionals and community-based programs can begin to build a trauma informed environment across the continuum of care"* (HHS, 2014, p.3).

The principles of Trauma/Grief-Informed care are based in self-determination, empowerment and social justice (Green, *et al.*, 2014) and, using these principles, trauma-related prevention, intervention, and treatment issues and strategies in organizations (HHS, 2014). This is an approach that benefits all employees of the organization and its customers, since it implies an organizational change, from administration to the support staff, because everyone gets *"training to increase their understanding of how direct or indirect exposure to traumatic events may impact their lives as well as the lives of clients"* (Green, *et al.*, 2014, p.112).

Limitations

Some limitations must be considered in the present study. The sample is small, 125 participants, captured in a "snow ball" process. The main goal was, nevertheless, accomplished, namely the production of an exploratory study to analyse if grief and trauma have any impact on work productivity. Future work using bigger samples is needed to study further and associations between grief and PTSD symptoms, and decision-making process, relation with other people and communication.

Regarding data collection, the profession should have been included in the questionnaires, to analyse the effects of grief and PTSD symptoms in terms of areas of expertise. During the collection of the socio-demographic data, it was clear the dissociative process made by the participants regarding potentially traumatizing events, as only 23 recognised those traumatizing events, although the LEC and IRS-R scores showed more expressive results on this matter.

CONCLUSIONS

This study demonstrates the relationship between grief and PTSD symptoms and productivity losses, particularly in terms of presenteeism, work productivity loss, decision-making, communication and relationships. These symptoms are transformed into psychosocial risk factors that compromise the worker's well-being, and demand higher economic costs for organizations.

Thus, it is urgent to measure a wider level of psychosocial stressors and implement mental disorders/health prevention/promotion programs, promote organisational practices for good mental health, taking into account the culture of a company, leadership behaviour, and develop means to ensure a good work-life balance (EU-OSHA, 2014). Trauma/Grief-Informed care is one way to prevent and minimize the effects of potentially traumatic situations or losses.

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Table 1

PTSD and Grief – Productivity Impact

	Work performance impact	Absenteeism	Presenteeism	Work productivity loss	Activity Impairment
			r		
PTSD	-.10	-.02	.22*	.19*	.35**
Grief	.29**	-.08	.26**	.22*	.43**

**The correlation is significant at the 0.05 level (bilateral) and ** correlation is significant at the 0.015 level (bilateral).*

Table 2

The level of grief symptoms (ICG) between groups that reported specific impact on Decision-Making, Communication and Relationships

	Has impact			Indifferent			*t*	*p*	*d*
	n	*M*	*SD*	*n*	*M*	*SD*			
Decision-Making	18	24.39	15.44	88	16.64	12.86	-2.25	.03	0.55
Communication	44	21.59	12.76	62	15.39	13.64	-2.37	.02	0.47
Relationship	28	24.29	14.67	78	15.70	12.49	-2.98	<.00	0.63

Table 3

WPAI components differences between persons with Healthy and Prolonged Grief

	Healthy Grief (*n*=106)		Prolonged Grief (*n*=19)		*t*	*p*	*D*
	M	*SD*	*M*	*SD*			
Absenteeism	.02	.11	.00	.01	.46	.65	-0.26
Presenteeism	.08	.16	.24	.33	-3.25	<.00	0.62
Work productivity loss	.09	.19	.24	.33	-2.84	.01	0.56
Activity Impairment	.09	.20	.36	.34	-4.75	<.00	0.97

Table 4

Grief symptoms effects on leadership role and dealing with public attendance

	Absenteeism	Presenteeism	Work productivity loss	Activity Impairment
With leadership role (*n*=41)	-.03	-.03	-.04	.38*
Without leadership role (*n*=84)	-.09	.37**	.32**	.45**
Dealing with public attendance (*n*=84)	-.11	.19	.13	.39**
Do not deal with public attendance (*n*=41)	.16	.46**	.46**	.57**

**The correlation is significant at the 0.05 level (bilateral) and **correlation is significant at the 0.01 level (bilateral).*

Table 5

PTSD symptoms effects on leadership role and dealing with public attendance

	Absenteeism	Presenteeism	Work productivity loss	Activity Impairment
With leadership role (*n*=41)	.11	.00	.02	.43**
Without leadership role (*n*=84)	-.07	.31**	.27**	.31**
Dealing with public attendance (*n*=84)	-.05	.25*	.20	.45**
Do not deal with public attendance (*n*=41)	.15	.20	.21	.23

**The correlation is significant at the 0.05 level (bilateral) and ** correlation is significant at the 0.01 level (bilateral).*

IV. Conclusão

O trabalho dos efeitos do luto e do trauma em vertentes aparentemente tão díspares, como os efeitos a longo prazo de um luto prolongado e do trauma implícito à natureza das mortes no desastre de Entre-os-Rios e como as consequências dos sintomas de luto e de perturbação de stress pós-traumático na produtividade laboral, têm em comum o impacto do sofrimento. Sofrimento esse tantas vezes escondido, omitido e dissociado.

Com o término e com a acumulação de conhecimento que se foi gerando em torno do tema, torna-se relevante efetuar reflexão crítica e sobre as limitações destes estudos. Teria dado uma roupagem diferente ao manuscrito "*Long term effects of Entre-os-Rios tragedy on grief and traumatic stress symptoms*", tê-lo-ia encarado com outra abordagem, mais prática, tendo explorado mais a questão do apoio psicológico e dos seus efeitos na atenuação dos sintomas de um luto prolongado e traumático, uma vez que existiu uma maturação dos temas e dos próprios conceitos.

Quanto ao estudo que originou o manuscrito "*Effects of Grief and Posttraumatic Stress on Work Productivity*", nasceu de um *brainstorming* em que se sabia ou pelo menos tudo indicava que sim, que os sintomas de luto e de trauma teriam impacto na produtividade laboral – mas, e *estudos? O que havia já sido feito neste sentido? Investigações?* – o material era reduzido, o que suscitou o interesse neste tema. O desenho de estudo foi delineado, mas hoje, teria sido feito de outra forma, teria sido questionada a profissão, por exemplo. A amostra tem um número relativamente reduzido, apesar de terem sido encetada diversas demandas, nomeadamente para estabelecer protocolos com uma associação comercial, mas o processo foi inconclusivo.

Este artigo vem realçar uma necessidade proeminente: as empresas e as organizações têm que estar atentas ao seu maior património – o humano. Quantos dos conflitos laborais ou acidentes não podiam ter sido evitados, se os intervenientes em sofrimento fossem devidamente acompanhados, por equipas especializadas e formadas para intervir neste sector?

O artigo "*Effects of Grief and Posttraumatic Stress on Work Productivity*" põe a descoberto o impacto mais importante, que ao contrário do que seria de imaginar, não é o absentismo, mas sim o presentismo, que se pauta por uma presença-ausente, em que as pessoas não faltam, porque precisam dos ordenados, mas onde a sua qualidade e produtividade são indiscutivelmente afetadas, principalmente ao nível da tomada de decisão, relacionamento e comunicação com os outros.

V. Anexos

Anexo 1: Protocolo de investigação: Termo de consentimento informado e dados sociobiográficos

TERMO DE CONSENTIMENTO INFORMADO

O que é que a morte de um ente querido, o divórcio ou uma doença crónica têm em comum? Todos eles representam perdas, perdas que originam sintomas de luto. Quando se considera a frequência com que os trabalhadores podem ser afetados por situações idênticas a estas, começa a perspetivar-se a magnitude do sofrimento escondido nos locais de trabalho.

Nesta perspetiva, este estudo pretende avaliar de que forma é que os sintomas de luto e de perturbação de stress pós-traumático afetam a produtividade dos trabalhadores. Para que este estudo seja possível é pedido às pessoas que exerçam uma atividade remunerada que preencham o questionário que se encontra em anexo - todos os dados recolhidos através do questionário são **confidenciais** e **anónimos**, serão apenas usados para os objetivos do estudo, não podendo ser usados para outros fins nem para avaliação de produtividade ou desempenho pela entidade patronal. Os participantes têm a possibilidade de abandonar a investigação, sem qualquer tipo de repercussões, devendo contactar a investigadora para informar dessa decisão (Dr.ª Daniela Cardoso).

Assim, após ser devidamente informado(a) sobre os objetivos e protocolo de investigação, declaro que aceitei de livre vontade fazer parte do estudo que está a ser realizado pelo Instituto de Investigação e Formação Avançada em Ciências e Tecnologias da Saúde (IINFACTS).

Obrigada pela sua colaboração!

Nº: _____

DADOS SÓCIOBIOGRÁFICOS

Por favor, assinale com um **X** a sua resposta:

1) Sexo: □ Feminino □ Masculino **2) Idade:** _____ anos

3) Estado civil: □ Solteiro(a) □ Casado(a) □ União de facto □ Separado(a)/Divorciado(a) □ Viúvo(a)

4) Habilitações literárias: □ 1º Ciclo (1º ao 4º ano) □ 2º Ciclo (5º ao 6º ano) □ 3º Ciclo (7º ao 9º ano) □ Ensino Secundário (10º ao 12º ano) □ Bacharelato □ Licenciatura □ Mestrado □ Doutoramento

5) Tem uma atividade profissional remunerada? □ Sim □ Não

6) Exerce essa atividade em:

□ Part-Time (menos de 30 horas por semana) □ Full-Time (30 ou mais horas por semana)

7) É: □ Trabalhador independente □ Trabalhador por conta de outrem □ Detentor de um negócio próprio

8) Tem algum chefe/supervisor? □ Sim □ Não

9) Trabalha integrado numa equipa? □ Sim □ Não

10) Desempenha alguma função de coordenação/gestão/supervisão de equipas? □ Sim □ Não

11) Lida com clientes e/ou fornecedores? □ Sim □ Não

12) Quantas horas trabalha, em média, por semana?_____ horas por semana

13) Quantas horas trabalhou na última semana? _____ horas por semana

14) Como classifica o seu ambiente de trabalho? (0 -nada agradável – muitíssimo agradável - 10)

0 1 2 3 4 5 6 7 8 9 10

15) Como se sente em relação às funções que desempenha? (0- nada satisfeito(a) – muitíssimo satisfeito(a) - 10)

0 1 2 3 4 5 6 7 8 9 10

16) Tem alguma doença crónica? □ Não □ Sim

Se Sim, qual/quais? _____

16.1) Se respondeu SIM, toma alguma medicação para essa doença(s)? □ Não □ Sim

17) Tem algum histórico de doença psiquiátrica/psicológica? □ Não □ Sim

Se Sim, qual/quais? _____

17.1) Se respondeu SIM, toma alguma medicação para essa doença(s)? □ Não □ Sim

18) Já perdeu alguém que considere significativo na sua vida? □ Não □ Sim

Se sim, indique a perda mais relevante:

18.1) Grau de Parentesco com o Falecido: _____

18.2) Há quanto tempo faleceu? _____

18.3) Idade do Falecido: _____

18.4) Importância do falecido na sua vida (0 - nada importante – muitíssimo importante - 10):

0 1 2 3 4 5 6 7 8 9 10

18.5) Papel/função do falecido na sua vida: _____

(Por exemplo: Educação; Liderança; Chefe de Família; Financeiro; Negligente; Confidente; Suporte, etc.)

18.6) A morte foi: □ Esperada □ Inesperada

18.7) Causa da morte: _____

18.8) Que impacto teve essa perda no desempenho do seu trabalho (0 - nenhum impacto – muitíssimo impacto - 10):

0 1 2 3 4 5 6 7 8 9 10

18.8.1) *Se assinalou um valor igual ou superior a 3*, assinale em que aspecto(s) sentiu esse impacto:

□ Tomada de decisão
□ Comunicação
□ Produtividade
□ Assiduidade
□ Pontualidade
□ Relacionamento com os outros
□ Outro: _____

19. Já experienciou alguma situação potencialmente traumática? □ Não □ Sim

Se sim, indique:

19.1) O que aconteceu? _____

19.2) Onde ocorreu? □ Local de trabalho □ Casa □ Outro local (qual?) _____

19.3) Há quanto tempo ocorreu? _____

19.4) Estiveram outras pessoas envolvidas na situação? □ Não □ Sim

19.4.1) Conhece/conhecia essa(s) pessoa(s)? □ Não □ Sim

19.5) Como se sente em relação a essa situação (0 - nada perturbado(a) – muitíssimo perturbado(a) - 10):

0 1 2 3 4 5 6 7 8 9 10

19.5.1) *Se assinalou um valor igual ou superior a 3*, assinale em que aspecto(s) sentiu esse impacto:

□ Tomada de decisão
□ Comunicação
□ Produtividade
□ Assiduidade
□ Pontualidade
□ Relacionamento com os outros
□ Outro: _____

Anexo 2: Submissão de Poster à 12th European Academy of Occupational Health Psychology Conference – Athens 2016

ATHENS 2016

eaohp

11-13 April 2016, Royal Olympic Hotel, Athens, Greece

ABSTRACT SUBMISSION

Title: Does PTSD and Grief Symptoms have effects on Productivity?

Abstract No. 0506

Title Does PTSD and Grief Symptoms have effects on Productivity?

Abstract

The mental health condition such depression affects worker productivity. However, the specific connection between stress related symptoms (related to bereavement or other traumatic events) have not been clarified. We aim to verify the relationship between Grief and PTSD symptoms and worker productivity.
Methods: In this study questionnaires were applied to 125 workers, which included: Inventory of Complicated Grief (ICG), Life Events Checklist (LEC), The Impact of Event Scale - Revised (IES-R) and Work Productivity and Activity Impairment Questionnaire: General Health (WPAI-GH V2.1) - and was also collected sociodemographic data.
Results: There is a positive correlation between WPAI-GH Work Impairment and Grief symptoms and PTSD. The mental suffering inherent to Grief and PTSD demonstrates an increased risk of productivity loss, reflected its impact on various aspects, mainly communication skills, relationships with others and decision making process.
Discussion: Spite of the small sample, this study provides evidence to an association that lacks results and suggest further research on the links between mental health and productivity. This study illustrated the relationship between Grief and PTSD symptoms and work function, suggesting Grief and PTSD symptoms haven't correlation with absenteeism, but correlates with the impact on the work, especially on productivity impairment.

Affiliations (1) CESPU, Porto, Portugal

Authors Daniela Cardoso (1) Presenting
José Rocha (1)

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Author 3		
Author 4		
Author 5		
Author 6		

Registration Confirm

Categories Traumatic Events and PTSD: impact, Management and Prevention

Presentation Poster

Award Yes

Contact us if you have a problem or wish to withdraw a submission: conference@eaohp.org

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European Academy of Occupational Health Psychology
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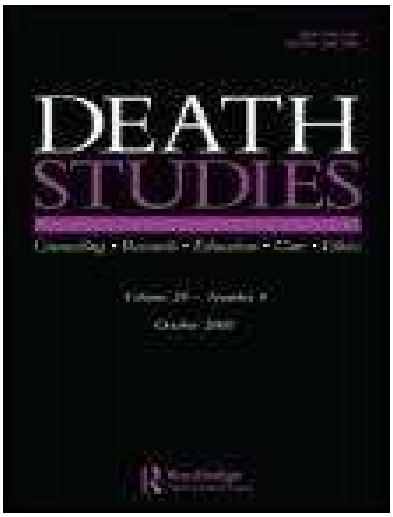
Anexo 3: Regras de submissão para o Journal Death Studies, do manuscrito *"Long term effects of Entre-os-Rios tragedy on grief and traumatic stress symptoms"*



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Manuscripts, including tables, figures, and references, should be prepared in accordance with the Publication Manual of the American Psychological Association (Sixth Edition, 2009). Authors should follow style and ethical guidelines of the American Psychological Association (APA). Sources cited in the text must be included in the reference list and acknowledgments; grant numbers or other credits should be included as a separate, asterisked footnote. Included in the discussion section should be an overview of the implications of the results for policy, practice, and future research.

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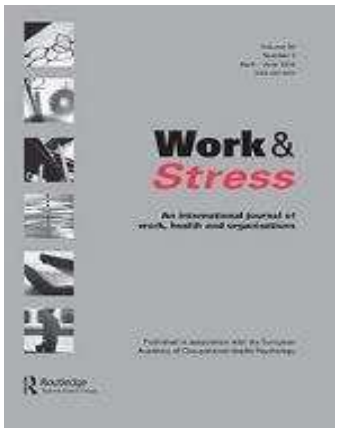
Anexo 4: Regras de submissão para o Journal Work & Stress, do manuscrito *"Effects of Grief and Posttraumatic Stress on Work Productivity"*



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- The following types of papers are accepted:

Empirical papers – these should advance knowledge, policy or practice. Different thresholds of acceptability may be appropriate for different types of paper. Scholarly papers describing and reviewing specialist concerns for the non-academic readership are encouraged. Empirical papers should not exceed about 30 double-spaced typewritten pages (inclusive of references, figures and tables). The journal is keen to support new developments in empirical and theoretical research, so innovative themes and procedures are encouraged. Although empirical research reports form the majority of published papers, constructively critical surveys of field studies, theoretical contributions and prescriptive articles (with methodological, statistical or procedural suggestions) are also welcome.

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- Manuscripts should be compiled in the following order: title page; abstract; keywords; main text; acknowledgements; references; appendices (as appropriate); table(s) with caption(s) (on individual pages); figure caption(s) (as a list).
- Abstracts of 200 words are required for all manuscripts submitted.

- Each manuscript should have 3 to 6 keywords.
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- Section headings should be concise.
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- Please write clearly and concisely, clearly stating your objectives and any hypotheses to be tested. Terms should be defined and abbreviations explained. Your arguments should be substantiated with well-reasoned supporting evidence, together with appropriate citations from published literature.
- Use a direct form of expression. The phrase "a model was developed" does not indicate whether this was done by you or by another worker in the field. This style can lead to confusion, particularly if, for instance, you have just cited another study. Instead, use the active voice: either "We (or 'The present authors') developed a model" or "Ferguson (1997) developed a model".

2. Style guidelines

- Description of the Journal's article style.
- Description of the Journal's reference style.
- Guide to using mathematical scripts and equations.

3. Figures and tables

Figures

- Please provide the highest quality figure format possible. Please be sure that all imported scanned material is scanned at the appropriate resolution: 1200 dpi for line art, 600 dpi for grayscale and 300 dpi for colour.
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- Files should be saved as one of the following formats: TIFF (tagged image file format), PostScript or EPS (encapsulated PostScript), and should contain all the necessary font information and the source file of the application (e.g. CorelDraw/Mac, CorelDraw/PC).
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- Figure captions must be saved separately, as part of the file containing the complete text of the manuscript, and numbered correspondingly.
- The filename for a graphic should be descriptive of the graphic, e.g. Figure1, Figure2a.

Tables

Tables should only be included when necessary, i.e. where large amounts of information cannot easily be incorporated within the text. However, they should not be over-densely packed with information as too much tabular data can obscure the main points of your paper. Therefore please keep the size and number of tables to a minimum.

For the presentation of tables and statistics you are asked to follow the guidelines of the American Psychological Association (APA). These are given in the APA Publication Manual, which can either be consulted in a library or obtained from APA. Details of the manual (and other related publications), including purchasing information, is given at www.apastyle.org; less detailed guidance on APA requirements may be found from a web search. Some of the points below are in accordance with APA guidelines.

- Tables should be typed double-spaced, without vertical lines ("rules"). Horizontal lines can be used at the top and bottom of the table, and below headings. They should not be used to separate blocks of data: Lines used in that way will be removed by the publisher's typesetter. Instead, other means should be found to clarify the presentation. (Spaces, bold type and small side headings can be used where appropriate.)
- Tables must be referred to in the text. Number them in the order of their appearance.

- Tables should not be incorporated within the text, but typed on separate sheets and placed at the end of the manuscript. However, their approximate position in the final, printed text should be clearly indicated in the manuscript:

[Insert table 2 about here]

- Tables should have a complete, self-explanatory title and be understandable without reference to the text. Each column should have an appropriate heading. A table should report the results of one type of analysis. Do not put new column headings within the body of a table.
- Avoid the use of abbreviations in tables; spell out the names of variables in full. Where abbreviations are necessary, they should be explained in a footnote to the table. The only abbreviations that do not require explanation are standard statistical abbreviations such as M, SD, df.
- The names of variables should be consistent throughout the text and tables.
- Do not use shading in tables.
- Most papers will require a table of descriptive statistics, including means, standard deviations and a correlation matrix.
- Footnotes to tables to indicate levels of significance should be placed below any other footnotes to tables. They should follow the conventional form: * for $p < .05$; ** for $p < .01$; *** for $p < .001$. To avoid confusion, asterisks should not be used for any other purpose in tables. Instead, a small superscript letter (a, b, c) or other symbol can be employed.
- Levels of significance of .000 as produced by computers should be rounded to .001 for publication.
- Do not report data with unwarranted precision. In most cases statistics should be given to no more than two decimal places. Except in unusual cases, percentages should be rounded to whole numbers.
- Use a zero before the decimal point when numbers are less than one. For example:

$t = 0.40$

However, do not use a zero before the decimal point when the number cannot be greater than one. This occurs with correlations, proportions and levels of statistical significance. For example:

$r = .27, p < .01$

- Use of average and mean: The correct term in most cases is "mean", which has a more precise definition.

4. Publication charges

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There is no submission fee for *Work & Stress*.

Page charges

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