



A sudden and unexpected death of a spouse and the severity of symptoms of complicated grief and Post-Traumatic Stress Disorder

Nagła i niespodziewana śmierć współmałżonka a nasilenie objawów żaloby
powikłanej i zaburzeń po stresie traumatycznym¹

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Abstract: Introduction: The death of a spouse is one of the most stressful events in life. A better understanding of the factors leading to difficulties in adaptation to the situation of loss in widowed people seems to be important. The main goal of the presented study is to verify the role of the circumstances of the loss of a spouse (a sudden and unexpected death) with respect to severity of the symptoms of complicated grief and post-traumatic stress disorders.

Method: Fifty five widowed people participated in the study (27 of them indicated that their spouse's death occurred suddenly and unexpectedly, in the case of 28 people the loss had been anticipated). The time elapsed since death ranged from six months to 2.5 years. To measure the severity of complicated grief, the Complicated Grief Inventory by Prigerson et al. (in the Polish adaptation by Ludwikowska-Świeboda and Lachowska) was used. In order to assess the severity of symptoms of post-traumatic stress disorder (intrusion, avoidance and hyperarousal), the Impact of Event Scale – Revised by Weiss and Marmar (in the Polish adaptation by Juczyński and Ogińska-Bulik) was used. To determine the circumstances of the spouse's death, a self-authored demographic data questionnaire was used. **Results:** As expected, the experience of a sudden and unexpected death is a significant predictor of the severity of complicated grief. Detailed analyses revealed that widowed people who experienced a sudden and unexpected death of their spouse are significantly more likely to be preoccupied with thinking about the deceased, experience shock and disbelief, and feel distanced from those who are important to them (compared to people who experienced an anticipated loss). They may also have a greater tendency to avoid stimuli reminding them of the deceased, experience more discomfort when recalling the deceased, and have difficulty trusting other people since their loss. A sudden and unexpected death is also a significant predictor of the severity of hyperarousal symptoms. **Conclusions:** Widowed people who view their spouse's death as sudden and unexpected are at a greater risk of a disruption of the grief process.

Keywords: complicated grief, prolonged grief, sudden death, unexpected death, widowhood

Abstrakt: Wstęp: Śmierć współmałżonka stanowi jedno z najbardziej stresujących wydarzeń życiowych. Lepsze zrozumienie czynników prowadzących do trudności w przystosowaniu się do sytuacji utraty u osób owdowiałych wydają się więc ważne. Głównym celem prezentowanych badań jest weryfikacja znaczenia okoliczności utraty współmałżonka (śmierć nagła i niespodziewana) dla nasilenia objawów żaloby powikłanej i zaburzeń po stresie traumatycznym.

Metoda: W badaniach wzięło udział 55 osób owdowiałych (27 osób wskazało, że śmierć współmałżonka nastąpiła nagle i niespodziewanie, w przypadku 28 osób strata była antycypowana). Czas, jaki upłynął od momentu śmierci współmałżonka wynosił od sześciu miesięcy do 2,5 roku. Do pomiaru nasilenia żaloby powikłanej wykorzystano Inwentarz Żaloby Powikłanej autorstwa Prigerson i współpracowników (w polskiej adaptacji Ludwikowskiej – Świeboda i Lachowskiej). W celu oceny nasilenia objawów zaburzeń po stresie traumatycznym (intruzji, unikania i pobudzenia) posłużono się Zrewidowaną Skalą Wpływu Zdarzeń autorstwa Weissa i Marmara (w polskiej adaptacji Juczyńskiego i Ogińskiej-Bulik). Aby określić okoliczności śmierci współmałżonka wykorzystano kwestionariusz danych demograficznych własnego autorstwa. **Wyniki:** Zgodnie z oczekiwaniami, doświadczenie śmierci nagłej i niespodziewanej jest istotnym predyktorem nasilenia żaloby powikłanej. Szczegółowe analizy ujawniły, że osoby owdowiałe, które doświadczyły nagłej i nieoczekiwanej śmierci współmałżonka, istotnie częściej w znacznym stopniu zaangażowane są myśleniem o zmarłym, doświadczają szoku i niedowierzania oraz odczuwają dystans wobec ważnych dla siebie osób (w porównaniu z osobami, w przypadku których strata była antycypowana). Osoby te mogą mieć również większą tendencję do unikania bodźców przypominających o zmarłym, znacznie częściej doświadczają dyskomfortu w sytuacji wspomniania go, oraz trudności w zaufaniu innym ludziom od momentu utraty. Śmierć nagła i niespodziewana jest również istotnym predyktorem nasilenia objawów pobudzenia. **Wnioski:** Osoby owdowiałe, które postrzegają śmierć współmałżonka jako nagłą i nieoczekiwaną, są w większym stopniu narażone na ryzyko zaburzeń w procesie żaloby.

Słowa kluczowe: żaloba powikłana, żaloba przewlekła, śmierć nagła, śmierć nieoczekiwana, wdowieństwo

1 Artykuł w języku polskim: <https://www.stowarzyszeniefidesetratio.pl/fer/2022-1Ludwik.pdf>

1. Introduction

The death of a spouse is an inevitable event taking place in the course of human life (Kostrubiec-Wojtachnio, 2020). According to the Statistics Poland data, as many as 140,000 - 170,000 marriages are terminated each year due to this cause. Widowed individuals (over 3 million people) constitute almost 10% of the Polish population (GUS, 2019). Additionally, the death of a spouse is one of the most stressful life events (Holmes and Rahe, 1967), being a risk factor for the development of mental (Kersting, Brähler, Glaesmer, and Wagner, 2011; Thomas, Hudson, Trauer, Remedios, and Clarke, 2014) and physical health disorders (Ennis & Majid, 2019). Studies conducted so far also suggest an increased risk of mortality, especially in the short term after the death of the spouse (Moon, Kondo, Glymour, & Subramanian, 2011). Research in and better understanding of the factors leading to difficulties experienced in adaptation to the situation of loss by widowed people are therefore of profound importance for a large percentage of our society. The main purpose of the present study is to investigate the role of the circumstances leading to the loss of a spouse (a sudden and unexpected death) in relation to the severity of symptoms of complicated grief and post-traumatic stress disorders.

1.1. Sudden and unexpected death and the severity of complicated grief

Complicated grief is characterised by persistent and intense experiences related to the death of a loved one, which are accompanied by a significant deterioration in everyday functioning (Ludwikowska-Świeboda, Lachowska, 2019; Shear, 2015; Szuhany et al., 2020). Many of the symptoms of this condition (e.g., longing and preoccupation with the deceased person adversely affecting everyday functioning; difficulty in accepting their death; emotional numbness) have been included as diagnostic criteria for Prolonged Grief Disorder, described in the 11th Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-11) (Sekowski, Prigerson, 2021; Szuhany et al., 2020; WHO, 2021).

In the initial period of grief, however, these symptoms are natural and they do not constitute an abnormal response to the death of a loved one. According to the ICD-11 classification, if the process of grieving is disturbed, the above symptoms may persist for a long time (at least six months), markedly exceeding expected social, cultural or religious norms for the individual's culture and context (WHO, 2021).

Studies conducted so far suggest there is a relationship between the severity of complicated grief (prolonged grief disorder) and the circumstances of the death of a loved one (Djentalik, Smid, Mroz, Kleber, Boelen, 2020; Eisma, Boelen, Lenferink, 2020). Research focusing on family caregivers of patients with cancer shows that individuals who did not feel prepared for the person's death are more likely to experience symptoms of prolonged grief disorder (Tsai et al., 2016). Similar findings were reported by Schaal, Richter and Elbert (2014) who conducted a study in which the respondents rated the suddenness of the death of a loved one on a ten-point scale. The more the death was perceived as unexpected, the greater the severity of prolonged grief. Unlike a sudden and unexpected loss, awareness of the impending death of a loved one can provide an opportunity to prepare for this difficult event. Research by Remondet and Hansson (1987) showed that widowed individuals who had spoken to their dying spouse about the changes and difficulties they might face after his/her death were more likely to go through a more adaptive grieving process. Anticipation of death is also associated with an opportunity to clear up any misunderstandings, solve unfinished business and say goodbye to the loved one. This factor also plays a positive role in adaptation to loss (Holland, Klingspon, Lichetnthal, & Neimeyer, 2018). Sudden and unexpected death can be caused by a traumatic event. According to the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (APA, 2013; Domino et al., 2021), traumatic circumstances resulting in the loss of a loved one include violent (homicide, suicide) or accidental death (e.g., car accidents, natural disasters, other events leading to a serious damage to the body). The consequences of death associated with traumatic circumstances, for those left behind

include the experience of traumatic bereavement. It is characterised by the coexistence of symptoms related to both grief and trauma, which interfere with each other (Barlé, Wortman, & Latack, 2017; Rubin, Malkinson, & Witztum, 2020; Stroebe et al., 2001). In this condition, death-related intrusive thoughts and imagery may promote a tendency to avoid any references to the traumatic event and the deceased person, which in turn may result in more severe symptoms of prolonged grief (Hardt, Williams, Shields, 2021). Almost half of the traumatically bereaved people may suffer from prolonged grief disorder (Djentalik et al., 2020).

1.2. Sudden and unexpected death and post-traumatic stress disorder

Death in traumatic circumstances is also a significant predictor of post-traumatic stress disorder (Kaltman, Bonanno, 2003). However, the relationship between sudden, unexpected death of a spouse due to natural causes (e.g., heart attack, stroke) and the severity of post-traumatic stress disorder symptoms (intrusion, avoidance and hyperarousal) is not clear. A study by Kaltman and Bonanno (2003) did not confirm that there is such a relationship (in that study, death was defined as sudden if it occurred less than one day after a terminal illness was diagnosed). Sudden and unexpected death due to natural causes, according to the DSM-5 classification (APA, 2013), also does not fit the definition of a traumatic event. However, as pointed out by Domino et al. (2021), the unpredictability and uncontrollability of the event may play a special role in the etiology of post-traumatic stress disorder. Sudden death of a loved one, regardless of the additional circumstances, in particular affects the sense of security of those left behind. It disrupts the individual's schemas related to the predictability of the world and the control of one's fate. After experiencing a sudden and unexpected death, the bereaved individuals may be hypervigilant, and tend to overreact to threatening cues (Domino et al., 2021).

1.3. Research hypotheses

Taking into account the above considerations, the following research hypotheses were formulated:

1. Sudden and unexpected death of a spouse is a significant predictor of complicated grief. Individuals whose spouses died suddenly and unexpectedly present more severe signs of complicated grief than those who expected their spouse's death.
2. Sudden and unexpected death of a spouse is a significant predictor of post-traumatic stress disorder symptoms (intrusion, avoidance and hyperarousal). Individuals whose spouses died suddenly and unexpectedly present greater levels of intrusion, avoidance, and hyperarousal than those who expected their spouse's death.

2. Method

2.1. Participants

The inclusion criterion was defined as the experience of the spouse's death in the period from six months to 2.5 years before the study. According to the ICD-11 classification, symptoms of acute grief lasting for up to six months do not constitute a pathological grief reaction (WHO, 2021; Killikelly, and Maercke, 2017). Chronic consequences of traumatic stress (many years after the death of a loved one), on the other hand, should be classified as specific enduring personality changes rather than a "simple" post-traumatic stress disorder (Puzyński, Wciórka, 2000). Therefore, the upper limit of the time elapsed since the death of the spouse was also specified as an inclusion criterion. In accordance with the above criterion, data from 55 widowed individuals (47 women and 8 men) were taken into account in further analyses. Study participants ranged in age from 26 to 73 years ($M = 52.6$; $SD = 11.98$). The age of the spouse at the time of his/her death ranged from 27 to 81 years ($M = 53.60$; $SD = 12.59$). The mean time elapsed since the death of the spouse was 1.5 years ($SD = 0.57$).

The participants presented different levels of education: 12 individuals (21.9%) reported primary or elementary vocational education; 27 individuals (48%) - secondary education; 16 individuals (29.1%) - higher or post-graduate education. Economically active individuals constituted approximately 56% of the study sample. Nineteen people were retired or receiving disability benefits (24.5%), three were unemployed (5.5%) and two reported other occupational status (3.6%). Nearly half of the respondents were residents of rural areas (45.5%), whereas six people reported living in a large city (10.9%). The remaining study participants (43.6%) lived in small (up to 50,000 inhabitants) or medium-sized towns (up to 150,000 inhabitants).

In the study sample, twenty-seven individuals ($N = 27$) reported experience of sudden and unexpected death of the spouse (group 1), and in the case of the remaining participants ($N = 28$), the death of their spouse had been expected (group 2). Additional circumstances surrounding the spouse's death are described below, relative to the groups.

Group 1 (sudden and unexpected loss):

- in the group of participants who experienced sudden and unexpected death of their spouses, 15 individuals (56%) reported that death was caused by a brief illness or other medical condition (e.g., heart attack, stroke);
- ten individuals (37%) lost their spouses as a result of accidental circumstances (car accidents, accidents at the workplace);
- two individuals (approx. 7%) reported violent death of the spouses (suicide).

Group 2 (anticipated loss):

- in this group, 22 individuals (78.6%) reported that their spouse's death occurred after a long illness;
- additionally, eight of these individuals reported that the death was preceded by long-term care due to the spouse's illness.

2.2. Procedure

The study was mainly conducted in the Świętokrzyskie and Lubelskie Regions. Each participants completed a set of questionnaires during an individual, previously scheduled, meeting with the researcher. The following tools were used: the Inventory of Complicated Grief (ICG) by Prigerson et al. (1995), the Polish version developed by Ludwikowska-Świeboda and Lachowska (2019); the Impact of Event Scale - Revised (IES-R) by Weiss and Marmar (1997), the Polish version developed by Juczyński and Ogińska-Bulik (2009); as well as a demographic questionnaire (specially designed by the author of the study), which included questions related to the circumstances of spouse's death.

2.3. Measures

The Inventory of Complicated Grief is used to measure the severity of symptoms associated with this condition (Ludwikowska-Świeboda, Lachowska, 2019; Prigerson et al., 1995). It includes 19 statements describing different thoughts and experiences related to the death of a spouse (e.g., "I think about this person so much that it's hard for me to do the things I normally do", "I go out of my way to avoid reminders of the person who died"). Respondents use a 5-point scale (0 – never, 4 – always) to report how often they experience certain thoughts or emotions. The higher the score, the higher the severity of complicated grief (Ludwikowska-Świeboda and Lachowska, 2019; Prigerson et al., 1995). As suggested by Simon et al. (2011), it may be assumed that a given symptom occurs at a clinical level when the respondent selects "often" or "always" for a given statement.

The IES-R is used to measure the severity of post-traumatic stress disorder (Weiss, Marmar, 1997; Juczyński, Ogińska-Bulik, 2009). It consists of 22 statements describing symptoms of perceived stress, experienced in the last seven days before the examination (in relation to the specific traumatic event). Each statement can be assigned to one of the three subscales related to post-traumatic stress disorder, i.e., intrusion, avoidance or hyperarousal. The study participants assess the intensity of individual experi-

ences on a five-point scale (0 - not at all, 4 - extremely). The higher the overall score, the greater the severity of post-traumatic stress disorder symptoms.

Both scales have been reported to present a satisfying internal consistency and validity (Ludwowska-Świeboda, Lachowska, 2019; Juczyński, Ogińska-Bulik, 2009).

3. Results

The first stage of the analysis (preliminary analyses) was carried out in order to identify variables that may be related to the severity of the symptoms of complicated grief and post-traumatic stress disorder (the following variables were controlled in the presented study: age of the participants, gender, time since the death of the spouse, and age of the spouse at the time of his/her death). The group of respondents whose spouse had died suddenly and unexpectedly was diverse as regards the circumstances of the loss (traumatic events or natural causes of

death). Therefore, the differences in the severity of complicated grief and symptoms of post-traumatic stress disorder in people who experienced traumatic or non-traumatic loss were additionally investigated. The main analyses (multivariate regression) were used to verify the research hypotheses.

3.1. Preliminary analyses

The table below (Table 1) presents findings of the analyses related to the differences between individuals who experienced sudden and unexpected death of the spouse and those who had expected the spouse's death, in terms of the severity of symptoms of complicated grief and post-traumatic stress disorder (overall score and dimensions of intrusion, avoidance and hyperarousal).

The preliminary analyses show statistically significant differences in the severity of complicated grief and post-traumatic stress disorders (overall score, intrusions, hyperarousal) between individuals who experienced sudden and unexpected death of

Table 1. Sudden, unexpected death and anticipated death (Student's t-test)

	Sudden and unexpected death (N = 27)		Anticipated death (N = 28)		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Complicated Grief	44.63	15.38	33.57	14.76	-2.72	0.009
Post-Traumatic Stress Disorder - overall score	55.11	10.52	43.64	17.85	-2.89	0.006
Intrusions	22.19	5.08	18.36	7.15	-2.29	0.027
Hyperarousal	18.00	4.78	13.04	7.01	-3.01	0.003
Avoidance	14.03	5.04	12.25	5.82	-1.82	0.074

Table 2. Death in traumatic and natural circumstances (Student's t-test)

	Traumatic circumstances (N = 12)		Natural circumstances (N = 43)		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Complicated Grief	39.64	11.98	38.84	16.90	-0.15	0.88
Post-Traumatic Stress Disorder - overall score	53.64	10.37	48.18	16.67	-1.03	0.31
Avoidance	15.91	4.53	12.98	5.69	-1.6	0.12

a spouse and those who had expected this loss. Both groups differ in the severity of avoidance symptoms, at a level of statistical tendency.

The next table (Table 2) presents findings showing the differences between individuals who experienced death of a spouse in traumatic circumstances (death as a result of an accident, suicide) and those whose spouse died due to natural causes, as reflected by the severity of symptoms of complicated grief and post-traumatic stress disorder (overall score and dimensions of intrusion, avoidance and hyperarousal).

The preliminary analyses did not confirm statistically significant differences in the severity of complicated grief, post-traumatic stress disorder (overall score) and avoidance, between traumatically bereaved individuals and those whose spouses had died in natural circumstances.

Due to the fact that the variable of intrusions was not normally distributed, and homogeneity of variance was violated in the case of the variable of hyperarousal, the Mann-Whitney U test was used to verify the differences between the above groups (traumatic versus natural circumstances of death). The analysis performed using the Mann-Whitney U test did not show statistically significant differences in the intensity of intrusion ($U = 214.50$; $p = 0.56$) or hyperarousal ($U = 237.00$; $p = 0.92$) between traumatically bereaved individuals (intrusions: $M = 21.55$; $SD = 5.73$; hyperarousal: $M = 16.18$; $SD = 4.96$) and individuals whose spouses had died in natural circumstances (intrusions: $M = 19.91$; $SD = 6.65$; hyperarousal: $M = 15.30$; $SD = 6.96$).

The analyses also investigated differences between men and women in the severity of complicated grief and post-traumatic stress disorder symptoms.

Table 3. Descriptive statistics and values of the correlation coefficients (Pearson's r) between the analysed variables

Variables	M	SD	1	2	3	4	5	6	7
1. Complicated Grief (ICG)	39.00	15.94							
2. Post-Traumatic Stress Disorder - overall score (IES-R)	49.27	15.68	0.73***						
3. Intrusions (IES-R)	20.24	6.46	0.76***	0.86***					
4. Avoidance (IES-R)	13.56	5.57	0.35**	0.75***	0.43**				
5. Hyperarousal (IES-R)	15.47	6.47	0.71***	0.90***	0.73***	0.51***			
6. Age of the study participant	52.60	11.98	-0.08	-0.08	-0.09	0.07	-0.12		
7. Time elapsed since the death of a spouse	1.52	0.57	-0.23(t)	-0.27*	-0.30*	-0.18	-0.20	-0.16	
8. Age of spouse at time of death	53.60	12.59	-0.01	-0.03	-0.07	0.18	-0.03	0.86***	-0.36**

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-sided); t - significance at the level of statistical tendency

Table 4. Results of multivariate regression analysis for complicated grief

Predictors	b	SE	β	t	p
(Constant)	41.79	6.40		6.54	0.001
Time elapsed since the death of a spouse	-5.16	3.60	-0.18	-1.43	0.158
Sudden and unexpected death	10.25	4.01	0.32	2.52	0.015

$R^2 = 0.12$;
 $F(3,51) = 4.80$; $p < 0.05$

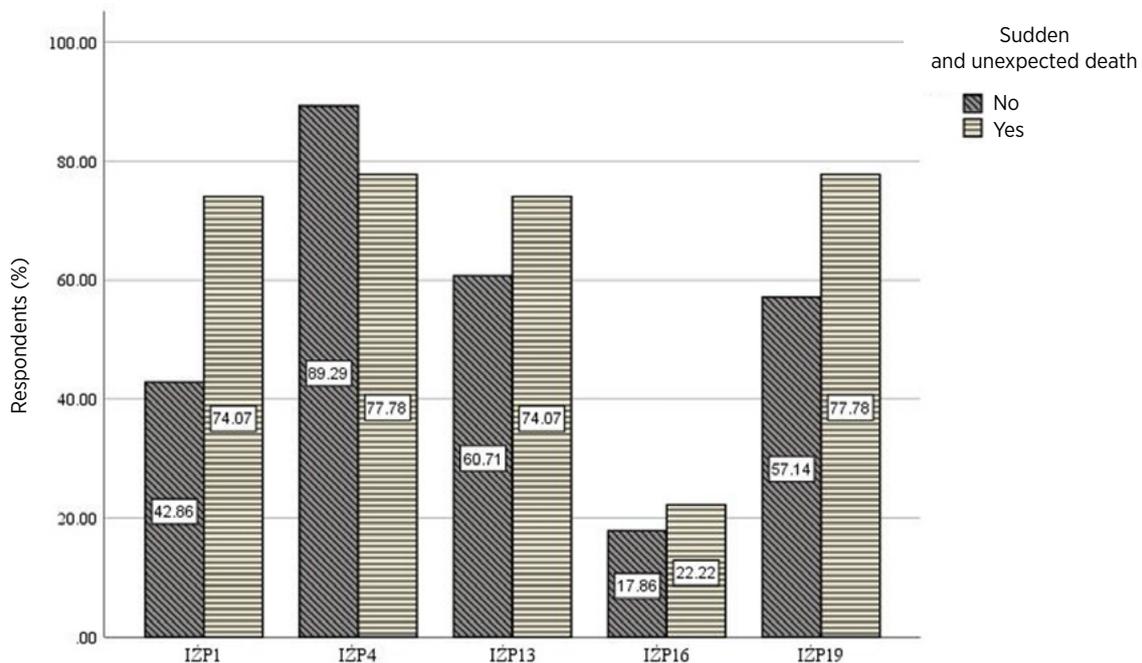
The Student's t-test for independent samples showed no statistically significant differences between women ($M = 40.43$; $SD = 15.48$) and men ($M = 30.62$; $SD = 17.04$) in the severity of complicated grief [$t(53) = -1.63$; $p = 0.11$]. Women acquired significantly higher scores in symptoms of hyperarousal. The analysis with the Mann-Whitney U test showed statistically significant differences between men and women in the intensity of intrusions ($U = 103.50$; $p < 0.05$; Δ Glass = 1.06). Women ($M = 21.13$; $SD = 5.78$) present a higher level of intrusions than men ($M = 15.00$; $SD = 8.09$).

Descriptive statistics and the correlation coefficients for the analysed quantitative variables are presented in the table below (Table 3).

3.2. Main analyses

The main stage of the analyses focused on verification of the research hypotheses. The model explaining the variance in complicated grief scores, apart from the variable of "sudden and unexpected death", also included the variable of "time since death of the spouse" (preliminary analyses showed that time since death may be significant in predicting the explained variable). The results of the multivariate regression analysis for the "complicated grief" variable are presented in Table 4.

Sudden and unexpected death is a significant predictor of complicated grief ($b = 10.25$; $SE = 4.01$; $p < 0.05$). The relationship between the time elapsed since the death of the spouse and the severity of symptoms of complicated grief is statistically non-significant ($b = -5.16$; $SE = 3.60$; $p = 0.158$). The presented



Explanations:

IŽP1 - I think about this person so much that it's hard for me to do the things I normally do.

IŽP4 - I feel myself longing for the person who died.

IŽP13 - I feel that life is empty without the person who died.

IŽP16 - I feel that it is unfair that I should live when this person died.

IŽP19 - I feel lonely a great deal of the time ever since he/she died.

Figure 1. Percentage of respondents experiencing symptoms in the category of "yearning/preoccupation" (with classification into unexpected and anticipated death groups).

model explains the severity of complicated grief at a rate of 12% (corrected R²) and correctly fits the data [F (3.51) = 4.80; p <0.05].

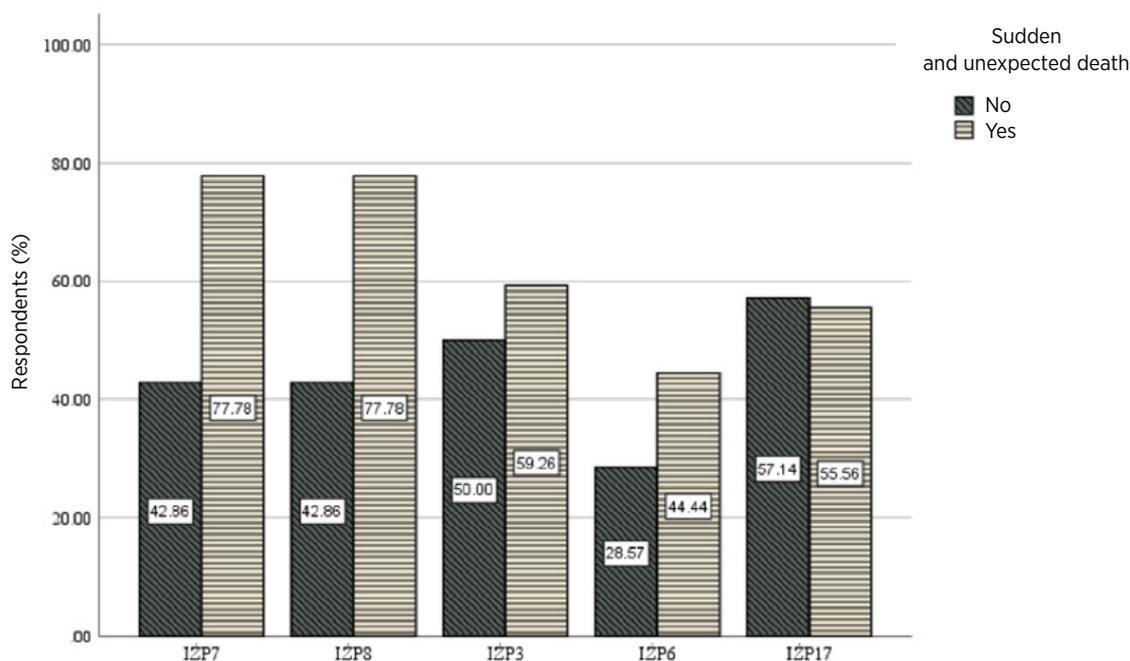
Additional analyses were conducted to determine which symptoms of complicated grief differentiated those who had experienced sudden and unexpected death of a spouse from the widowed individuals who had expected loss. Therefore, in accordance with the method proposed by Simon et al. (2011), the number of respondents experiencing various symptoms of complicated grief at a clinical level was determined for each group. The significance of differences between the groups was estimated using the Pearson’s chi-square test. The results are presented graphically in the following figures, including the following key categories of complicated grief symptoms: (1) yearning and preoccupation with the deceased, (2) bitterness

and anger as well as shock and disbelief, (3) changes in behaviour and estrangement from others (Simon et al., 2011; Ludwikowska-Świeboda, 2020).

The figure below (Figure 1) presents the percentage of people experiencing symptoms matching the category of “yearning and preoccupation with the deceased” at a clinical level.

Over 70% of the widowed individuals whose spouse had died suddenly and unexpectedly, were preoccupied with the deceased and were experiencing strong yearning for the deceased, emptiness and loneliness. Slightly over 20% of these individuals reported that they felt guilty of the spouse’s death.

Nearly 90% of the widowed individuals who had expected their spouse’s death, were missing the deceased to a high degree. Between 55-65% of these individuals also reported a strong feeling of emptiness and loneliness. Almost 43% of these individuals were strongly preoccupied with the deceased.



Explanations:

IŻP7 - I feel disbelief over what happened.

IŻP8 - I feel stunned or dazed over what happened.

IŻP3 - I feel I cannot accept the death of the person who died.

IŻP6 - I can't help feeling angry about his/her death.

IŻP17 - I feel bitter over this person's death

Figure 2. Percentage of respondents experiencing symptoms in the category of “bitterness and anger” and “shock and disbelief” at a clinical level (with classification into unexpected and anticipated loss groups).

Almost 18% reported a sense of guilt. Analyses based on the Pearson's chi-square test show statistically significant differences between the two groups in terms of preoccupation with the deceased ($\chi^2 = 5.50$; $p < 0.05$). Significantly more people who had experienced a sudden and unexpected death of their spouse were preoccupied with thinking about him/her in a way that disrupted their daily functioning, as compared to the group in which the death had been expected.

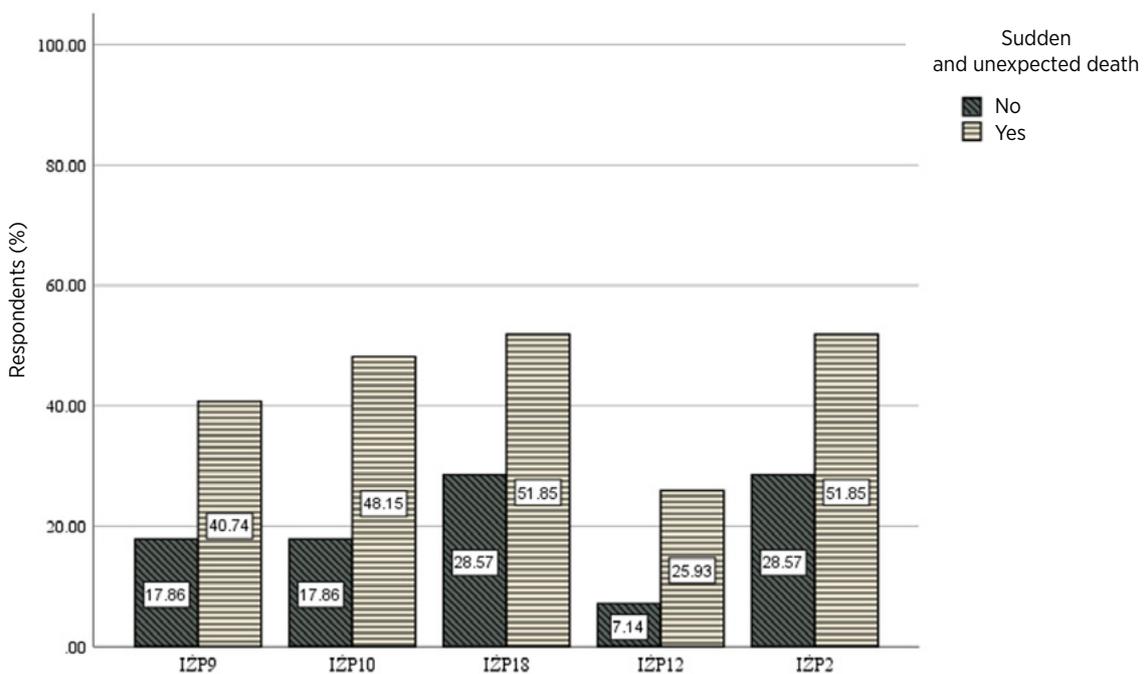
The figure below (Figure 2) presents the percentage of individuals experiencing symptoms matching the categories of "bitterness and anger" as well as "shock and disbelief" at a clinical level.

In the widowed group, where the death of a spouse had happened suddenly and unexpectedly, nearly 80% of the individuals experienced a high degree of shock and disbelief. Slightly more than half of these

individuals reported difficulties in accepting the loss as well as bitterness. Almost 45% of the respondents admitted they frequently felt angry.

In the group of individuals who had expected their spouse's death, 50-60% experienced bitterness and difficulties in accepting the loss (to a significant degree). Approximately 43% of these respondents reported feeling of shock and disbelief, and nearly 30% frequently experienced anger. The analyses showed statistically significant differences between the two groups in the experience of disbelief ($\chi^2 = 6.98$; $p < 0.01$) and shock ($\chi^2 = 6.98$; $p < 0.01$). Individuals whose spouses had died suddenly and unexpectedly were significantly more likely to experience these symptoms.

The figure below (Figure 3) presents the percentage of individuals experiencing symptoms matching the categories of "changes in behaviour" and "estrangement from others" at a clinical level.



Explanations:

IŽP9 – Ever since he/she died, it is hard for me to trust people.

IŽP10 – Ever since he/she died, I feel as if I have lost the ability to care about other people or I feel distant from people I care about.

IŽP18 – I feel envious of others who have not lost someone close.

IŽP12 – I go out of my way to avoid reminders of the person who died.

IŽP2 – Memories of the person who died upset me.

Figure 3. Percentage of respondents experiencing symptoms in the category of "estrangement from others" and "changes in behaviour" at a clinical level (with classification into unexpected and anticipated loss groups).

Between 40% and 52% of widowed individuals whose spouses had died suddenly and unexpectedly reported that they experienced such symptoms as: loss of interest or distance towards significant others, difficulties in trusting other people, envy, discomfort when remembering their deceased spouse. One in four respondents in this group reported they were largely avoiding reminders of their deceased spouse.

In the group of individuals who had expected their spouse's death, slightly over 25% reported envy towards others, and discomfort when remembering their spouse. Approximately 18% experienced considerable difficulties in trusting other people and felt detached from significant others. Approximately 7% of these individuals reported a tendency to avoid reminders of the deceased spouse. The analyses showed statistically significant differences between the two groups in the sense of detachment from significant others ($\chi^2 = 5.73$; $p < 0.05$); furthermore, differences at a level of statistical tendency were found in such categories as: difficulty trusting other people ($\chi^2 = 3.49$; $p < 0.062$), envy ($\chi^2 = 3.10$; $p = 0.078$), avoidance of reminders related to the deceased spouse ($\chi^2 = 3.54$; $p < 0.060$), as well as discomfort when

recalling him/her ($\chi^2 = 3.10$; $p < 0.078$). Individuals whose spouses had died suddenly and unexpectedly were more likely to experience these symptoms.

The subsequent analyses aimed to identify predictors of post-traumatic stress disorder symptoms (intrusion, hyperarousal, avoidance). The model explaining the severity of intrusions, in addition to the variable of "sudden and unexpected death", also included the variables of "gender" and "time since spouse's death" (the preliminary analyses showed that these variables may be significant for predicting of the explored variable). The results of multivariate regression analysis for the explored variable of "intrusions" are presented in Table 5.

The relationship between time since the spouse's death and the severity of intrusions is significant, at a level of statistical tendency ($b = -2.75$; $SE = 1.44$; $p = 0.06$). Sudden and unexpected death ($b = 2.21$; $SE = 1.77$; $p = 0.21$) or gender ($b = 4.14$; $SE = 2.50$; $p = 0.10$) are not significant predictors of intrusions (if the model includes time elapsed since the loss). The presented model explains the severity of intrusions at a rate of 16% (corrected R^2) and it correctly fits the data [$F(3,51) = 4.31$; $p < 0.01$].

Table 5. Results of multivariate regression analysis for intrusions

Predictors	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
(Constant)	19.77	3.27		6.05	0.001
Gender	4.14	2.50	0.23	1.66	0.10
Time elapsed since the death of a spouse	-2.75	1.44	-0.24	-1.90	0.06
Sudden and unexpected death	2.21	1.77	0.17	1.26	0.21
$R^2 = 0.16$; $F(3,51) = 4.31$; $p < 0.01$					

Table 6. Results of multivariate regression analysis for hyperarousal

Predictors	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
(Constant)	9.38	2.06		4.54	0.001
Gender	5.13	2.44	0.28	2.10	0.041
Sudden and unexpected death	3.50	1.72	0.27	2.03	0.047
$R^2 = 0.19$; $F(2,52) = 7.18$; $p < 0.01$					

The model explaining the severity of hyperarousal, in addition to the variable of “sudden and unexpected death”, included also the variable of “gender”. The results of multivariate regression analysis for the explored variable of “hyperarousal” are presented in Table 6.

Sudden and unexpected death ($b = 3.50$; $SE = 1.72$; $p < 0.05$) and gender ($b = 5.13$; $SE = 2.44$; $p < 0.05$) are significant predictors of hyperarousal. The presented model explains the severity of hyperarousal at a rate of 19% (corrected R^2), and it correctly fits the data [$F(2,52) = 7.18$; $p < 0.01$].

No regression analysis was performed for the avoidance dimension because preliminary analyses did not identify a significant relationship between this dimension and variables controlled in the present study. Study participants who experienced sudden and unexpected death of their spouse seem to present a greater tendency for avoidance than those who expected such loss (significance at a level of statistical tendency) (see Table 1).

4. Discussion

In the present study, we anticipated that sudden and unexpected death of a spouse is a significant predictor of complicated grief and post-traumatic stress disorder symptoms (intrusion, avoidance and hyperarousal). The research hypothesis regarding the relationship between the above circumstances of loss and the severity of complicated grief has been proven. In addition, it was found that, compared to individuals who had expected the death of their spouse, significantly more widowed individuals whose spouse died suddenly and unexpectedly, often experience such symptoms as: preoccupation with the deceased, disbelief and shock, distance towards significant other. Differences at a level of statistical tendency were also found between the above groups in such symptoms as difficulty in trusting other people, avoiding reminders of the deceased spouse, discomfort when remembering him/her. Individuals who have experienced sudden and unexpected death of their spouse are more likely to experience these symptoms at a clinical level.

Although the time elapsed from the spouse's death in the present study, on average, was one and a half years, the findings show that nearly 80% of those individuals who experienced a sudden and unexpected loss are still preoccupied with thinking about their spouse to a degree that may disrupt daily functioning, and they experience feelings of profound loneliness. Nearly 80% of the widowed individuals in this group still frequently feel stunned or confused, and do not believe that their spouse is dead. These findings seem to be in line with other studies showing that in the case of sudden and unexpected loss of immediate family members, the period of acute grief often exceeds six or 12 months (Goldstein et al., 2018; Morris, Fletcher, & Goldstein, 2018; Neria et al., 2007). For instance, Goldstein et al. (2018) reported that intense emotional grief reactions of mothers who had experienced SIDS-related loss of a child were found to persist for four years after the loss. Therefore, on the one hand, sudden and unexpected death can be a risk factor for prolonged grief disorder (Schaal et al., 2014; Tsai et al., 2015). On the other hand, a formal diagnosis of the latter condition also carries a potential risk for pathologisation of the emotional responses shown by many people experiencing non-normative loss of their immediate family members (Morris et al., 2018). It is also important to consider the dynamics of the grieving process. A study by Lundorff, Johannsen, and O'Connor (2021) demonstrated that some individuals meeting the criteria for prolonged grief disorder in the sixth month after their spouse's death, presented less severe grief-related experiences a few months later (compared to the baseline assessment).

The hypothesis concerning the relationship between sudden and unexpected death of a spouse and the severity of post-traumatic stress disorder symptoms has been proven with regard to the hyperarousal dimension. The above finding confirms increased vigilance, anxiety and hypersensitivity to potentially threatening stimuli in people experiencing this type of loss. It was also found that both groups (sudden loss - expected loss) differ in the severity of avoidance symptoms at a level of statistical tendency. Sudden and unexpected loss, unlike expected loss, is not a significant predictor of intrusions. In addition,

no statistically significant differences were found between individuals who had experienced loss in traumatic circumstances and those whose spouses had died due to natural causes, as regards the severity of complicated grief and symptoms of post-traumatic stress disorder (intrusions, avoidance, hyperarousal).

Regardless of the circumstances of the loss (sudden and unexpected death, anticipated death - after a long illness, death in traumatic circumstances), the study participants were found with a similar severity of intrusive thoughts and images related to the spouse's death. A study by Kaplow, Howell, and Layne (2014) also found no differences in the severity of post-traumatic stress symptoms between adults who had experienced unexpected or anticipated loss. One factor (not included in the present study) possibly explaining the above results is the exposure of widowed people to potentially traumatising images associated with their spouse's death. Research by Ingles et al. (2016) shows that individuals who witnessed sudden cardiac death or found the body of a family member, who had died in such circumstances, present more severe post-traumatic stress and prolonged grief symptoms. Most of the respondents in that study had participated in resuscitation. Research involving adolescents shows that the circumstances accompanying long-term illnesses (the course of various medical procedures, the image of a dying parent, prolonged exposure to chronic and severe stress experienced by other family members) can be as traumatising as the experience of witnessing a sudden and unexpected death of a parent (Layne, Kaplow, Oosterhoff, Hill, Pynoos, 2017).

The limitations of this study should also be mentioned. These include: (1) the relatively small number of respondents, making it impossible to carry out statistical analyses separately for traumatically bereaved individuals and those who experienced sudden death of a spouse due to natural causes; (2) lack of data describing in more detail the circumstances of the spouse's death (e.g. witnessing his/her death, the course of the spouse's long-term illness); (3) no possibility to distinguish a clinical group (people meeting the criteria for the diagnosis of prolonged grief disorder). Nevertheless, the study provides data

(also of a descriptive nature) related to the specificity of grief experienced by widowed individuals whose spouses died suddenly and unexpectedly.

Bibliography

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th edn)*. Washington, DC: APA.
- Barlé, N., Wortman, C.B., & Latack, J.A. (2017). Traumatic bereavement: Basic research and clinical implications. *Journal of Psychotherapy Integration*, 27(2), 127-139, <https://doi.org/10.1037/int0000013>.
- Djelantik, A.M.J., Smid, G.E., Mroz, A., Kleber, R.J., & Boelen, P.A. (2020). The prevalence of prolonged grief disorder in bereaved individuals following unnatural losses: Systematic review and meta regression analysis. *Journal of Affective Disorders*, 265, 146-156, <https://doi.org/10.1016/j.jad.2020.01.034>.
- Domino, J.L., Whiteman, S.E., Davis, M.T., Witte, T.K., & Weathers, F.W. (2021). Sudden unexpected death as a traumatic stressor: The impact of the DSM-5 revision of Criterion A for posttraumatic stress disorder. *Traumatology*, 27(2), 168-176, <https://doi.org/10.1037/trm0000272>.
- Eisma, M.C., Boelen, P.A., & Lenferink, L. (2020). Prolonged grief disorder following the Coronavirus (COVID-19) pandemic. *Psychiatry Research*, 288, 113031, <https://doi.org/10.1016/j.psychres.2020.113031>.
- Ennis, J., Majid, U. (2021) "Death from a broken heart": A systematic review of the relationship between spousal bereavement and physical and physiological health outcomes, *Death Studies*, 45(7), 538-551, <https://doi.org/10.1080/07481187.2019.1661884>.
- Główny Urząd Statystyczny (2019). *Sytuacja demograficzna Polski do 2018r. Tworzenie i rozpady rodzin*. Warszawa: Zakład Wydawnictw Statystycznych.
- Goldstein, R.D., Lederman, R.I., Lichtenhal, W.G., Morris, S.E., Human, M., Elliott, A.J., Tobacco, D., Angal, J., Odendaal, H., Kinney, H.C., Prigerson, H.G., & PASS Network, (2018). The Grief of Mothers After the Sudden Unexpected Death of Their Infants. *Pediatrics*, 141(5), e20173651, <https://doi.org/10.1542/peds.2017-3651>.
- Hardt, M.M., Williams, J.L., & Jobe-Shields, L. (2021). The role of experiential avoidance in the relationship between traumatic distress and yearning in sudden and unexpected bereavement. *Journal of Clinical Psychology*, 1-11, <https://doi.org/10.1002/jclp.23233>.
- Holland, J.M., Klingspon, K.L., Lichtenhal, W.G., & Neimeyer, R.A. (2020). The Unfinished Business in Bereavement Scale (UBBS): Development and psychometric evaluation. *Death Studies*, 44(2), 65-77, <https://doi.org/10.1080/07481187.2018.1521101>.
- Holmes, T.H., Rahe, R.H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research*, 11, 213-218.
- Ingles, J., Spinks, C., Yeates, L., McGeechan, K., Kasparian, N., & Semsarian, C. (2016). Posttraumatic stress and prolonged grief after the sudden cardiac death of a young relative. *JAMA Internal Medicine*, 176(3), 402-405, <https://doi.org/10.1001/jamainternmed.2015.7808>.
- Juczynski, Z., Ogińska-Bulik, N. (2009). Pomiar zaburzeń po stresie traumatycznym - polska wersja Zrewidowanej Skali Wpływu Zdarzeń. *Psychiatria*, 6(1), 15-25.

- Kaltman, S., & Bonanno, G.A. (2003). Trauma and bereavement: Examining the impact of sudden and violent deaths. *Journal of Anxiety Disorders*, 17(2), 131-147, [https://doi.org/10.1016/S0887-6185\(02\)00184-6](https://doi.org/10.1016/S0887-6185(02)00184-6).
- Kersting, A., Brähler, E., Glaesmer, H., Wagner, B. (2011). Prevalence of complicated grief in a representative population-based sample. *Journal of Affective Disorders*, 131(1-3), 339-343, <https://doi.org/10.1016/j.jad.2010.11.032>.
- Killikelly, C., & Maercker, A. (2017). Prolonged grief disorder for ICD-11: the primacy of clinical utility and international applicability. *European Journal of Psychotraumatology*, 8(sup6), 1476441, <https://doi.org/10.1080/20008198.2018.1476441>.
- Kostrubiec-Wojtachnio, B. (2020). Koncepcja zadań w rozwoju religijnym małżonków w biegu ich życia: próba określenia stadiów rozwojowych i osiągnięć rozwojowych, (in:) M. Borowska, J. Kraśniewska (red.). *Konteksty religijności i rodziny*, 265-299. Kraków: Wydawnictwo Naukowe Uniwersytetu Papieskiego Jana Pawła II, <https://doi.org/10.15633/9788374389327.07>.
- Layne, C.M., Kaplow, J.B., Oosterhoff, B., Hill, R.M., & Pynoos, R.S. (2017). The interplay between posttraumatic stress and grief reactions in traumatically bereaved adolescents: When trauma, bereavement, and adolescence converge. *Adolescent Psychiatry*, 7(4), 266-285, <https://doi.org/10.2174/2210676608666180306162544>.
- Ludwikowska-Świeboda, K. (2020). Attachment style and experiencing the symptoms of complicated grief after the death of a spouse – preliminary research among widowed women. *Psychiatria i Psychologia Kliniczna*, 20(2), 112-121, <https://doi.org/10.15557/PIPK.2020.0015>.
- Ludwikowska-Świeboda, K., Lachowska, B. (2019). Polska wersja Inwentarza Żałoby Powikłanej – wstępna walidacja. *Psychiatria Polska*, 53(5), 1069-1086, <https://doi.org/10.12740/PP/91729>.
- Lundorff, M., Johannsen, M., & O'Connor, M. (2021). Time elapsed since loss or grief persistency? Prevalence and predictors of ICD-11 prolonged grief disorder using different applications of the duration criterion. *Journal of Affective Disorders*, 279, 89-97, <https://doi.org/10.1016/j.jad.2020.09.116>.
- Moon, J.R., Kondo, N., Glymour, M.M., Subramanian, S.V. (2011). Widowhood and Mortality: A Meta-Analysis. *PLOS ONE*, 6(8): e23465, <https://doi.org/10.1371/journal.pone.0023465>.
- Morris, S., Fletcher, K., & Goldstein, R. (2019). The grief of parents after the death of a young child. *Journal of Clinical Psychology in Medical Settings*, 26(3), 321-338, <https://doi.org/10.1007/s10880-018-9590-7>.
- Neria, Y., Gross, R., Litz, B., Maguen, S., Insel, B., Seirmarco, G., Rosenfeld, H., Suh, E.J., Kishon, R., Cook, J. and Marshall, R.D. (2007). Prevalence and psychological correlates of complicated grief among bereaved adults 2.5–3.5 years after September 11th attacks. *J. Traum. Stress*, 20, 251-262, <https://doi.org/10.1002/jts.20223>.
- Prigerson, H.G., Maciejewski, P.K., Reynolds, C.F., Bierhals, A.J., Newsom, J.T., Fasiczka, A., Miller, M. (1995). Inventory of Complicated Grief: a scale to measure maladaptive symptoms of loss. *Psychiatry Research*, 59(1), 65-79, [https://doi.org/10.1016/0165-1781\(95\)02757-2](https://doi.org/10.1016/0165-1781(95)02757-2).
- Puzyński, S., Wciórka, J. (2000). *Klasyfikacja zaburzeń psychicznych i zaburzeń zachowania w ICD-10*. Kraków-Warszawa: Uniwersyteckie Wydawnictwo Medyczne „Vesalius”.
- Remondet, J.H., & Hansson, R.O. (1987). Assessing a widow's grief - A short index. *Journal of Gerontological Nursing*, 13(4), 30-34, <https://doi.org/10.3928/0098-9134-19870401-07>.
- Rubin, S.S., Malkinson, R., & Witztum, E. (2020). Traumatic Bereavements: Rebalancing the Relationship to the Deceased and the Death Story Using the Two-Track Model of Bereavement. *Frontiers in Psychiatry*, 11, 537596, <https://doi.org/10.3389/fpsy.2020.537596>.
- Schaal, S., Richter, A., & Elbert, T. (2014). Prolonged grief disorder and depression in a German community sample. *Death Studies*, 38(7), 476-481, <https://doi.org/10.1080/07481187.2013.809032>.
- Sekowski, M., & Prigerson, H.G. (2021). Associations between interpersonal dependency and severity of prolonged grief disorder symptoms in bereaved surviving family members. *Comprehensive Psychiatry*, 108, 152242, <https://doi.org/10.1016/j.comppsy.2021.152242>.
- Shear, M.K. (2015). Complicated grief. *New England Journal of Medicine*, 372(2), 153-160, <https://doi.org/10.1056/NEJMcp1315618>.
- Simon, N.M., Wall, M.M., Keshaviah, A., Dryman, M.T., LeBlanc, N.J., & Shear, M.K. (2011). Informing the symptom profile of complicated grief. *Depression and Anxiety*, 28(2), 118-126, <https://doi.org/10.1002/da.20775>.
- Stroebe, M., Schut, H., Finkenauer, C. (2001). The traumatization of grief? A conceptual framework for understanding the trauma-bereavement interface. *Israel Journal of Psychiatry and Related Sciences*, 38(3/4), 185-201.
- Szuhany, K.L., Young, A., Mauro, C., Garcia de la Garza, A., Spandorfer, J., Lubin, R., Skritskaya, N.A., Hoepfner, S.S., Li, M., Pace-Schott, E., Zisook, S., Reynolds, C.F., Shear, M.K., & Simon, N.M. (2020). Impact of sleep on complicated grief severity and outcomes. *Depression and Anxiety*, 37(1), 73-80, <https://doi.org/10.1002/da.22929>.
- Thomas, K., Hudson, P., Trauer, T., Remedios, C., & Clarke, D. (2014). Risk factors for developing prolonged grief during bereavement in family carers of cancer patients in palliative care: a longitudinal study. *Journal of Pain and Symptom Management*, 47(3), 531-541, <https://doi.org/10.1016/j.jpainsymman.2013.05.022>.
- Tsai, W.I., Prigerson, H.G., Li, C.Y., Chou, W.C., Kuo, S.C., & Tang, S.T. (2016). Longitudinal changes and predictors of prolonged grief for bereaved family caregivers over the first 2 years after the terminally ill cancer patient's death. *Palliative Medicine*, 30(5), 495-503, <https://doi.org/10.1177/0269216315603261>.
- Weiss, D.S., & Marmar, C.R. (1997). *The Impact of Event Scale Revised in Assessing Psychological Trauma and PTSD – A Practitioners Handbook*, New York: Edited by Wilson JP & Keane TM. World Health Organisation. *ICD-11 Reference Guide*, (from:) <https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/1185832314> (access: 05.01.2021).