

# Dreams of Ukrainian female refugees to Poland after February 24, 2022: Quantitative dream content findings

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**Summary.** This study presents quantitative findings on the dream content of 50 Ukrainian women who fled to Poland after the Russian invasion of Ukraine in 2022. 214 dreams from the period of the refugees' stay in Poland were analyzed using the Hall and Van de Castle system. The results were compared to the normative dream content findings for the Ukrainian, Polish, and American societies. Additionally, subsamples of the most recent dreams and the dreams of the most traumatized and the least traumatized women were isolated and compared to the entire sample. The biggest differences between the whole sample and the Ukrainian, Polish, and American norms for women were found in the percentages of familiar characters, children, aggression, victimization, friendliness, negative emotions, successes, and good fortunes. Most of the results are consistent with the dream characteristics of other traumatized populations, except for the low percentage of negative emotions. Overall, the Ukrainian refugees behave passively in their dreams. On the one hand, it reflects their social isolation and posttraumatic symptoms, but on the other hand one can speculate that it serves as a coping mechanism that helps the dreamers withdraw attention from their waking concerns.

**Keywords:** Dream content, Hall/Van de Castle system, PTSD, immigrants' dreams, passivity in dreams

## 1. Introduction

The Russian full-scale invasion of Ukraine from February 2022 has been considered one of the most serious human rights violation in the present-day world. It caused a mass migration from the country, especially to the neighboring Poland that today hosts the second biggest population of Ukrainian war refugees in Europe (about one million people). In order to better understand the psychological and social aftermath of their experiences, I conducted quantitative and qualitative analyses of the dreams of 50 Ukrainian women who fled to Poland after February 24, 2022. The research was restricted to female subjects because women constitute a vast majority of Ukrainian war refugees and their migrant experiences differ substantially from men's experiences. The present study is a report on the quantitative findings obtained by the use of Calvin Hall and Robert Van de Castle's (1966) dream content analysis method (see also Domhoff 1996).

The aim of this study is to assess whether – and how – the subjects' dream content deviates from normative findings and from the dreams of other traumatized populations. Much has been written about the dreams of war veterans (e.g. Esposito et al. 1999; Wilmer 2001; Sandman et al. 2013; Wittmann 2022), war victims and survivors (e.g. Rofe and Lewin 1982; Lavie and Kaminer 1991; 2001; Schreuder, Kleijn, and Rooijmans 2000; Glaesmer et al. 2010; Bergman

et al. 2020; Solte-Gresser 2021; Hunter 2022; Owczarski 2023a), war survivors' descendants (e.g. Schredl and Piel 2006; Newsom 2021; Owczarski 2023b), dictatorship sufferers (e.g. Beradt 1985, Sliwinski 2017), and survivors of different kinds of trauma (e.g. Barrett 2001; Valli et al. 2006; Punamäki 2007; Owczarski 2014; Pigeon, Carr, and Mellman 2021). The dreams of people affected by the 2022 war in Ukraine have also been investigated. Oksana Kuzmenko (2023) analyzed prophetic dreams of Ukrainian women from a few days before the war in the context of Ukrainian folk beliefs. Stephen Frosh (2024) provided psychoanalytical comments on the dreams of Ukrainian students and academics reported in the first two months of the Russian invasion. From anthropological perspective, Magdalena Zolkos (2025) portrayed a war dream of a Ukrainian woman as an example of "oneiric witnessing". Izabela Kaźmierczak and her colleagues (2024) studied emotional and thematic aspects of dreams reported in March 2022 by Polish people threatened by the war just beyond the border.

Almost all of these authors demonstrate that wars and other traumatic events impact dreaming severely by causing nightmares, negative emotional tone of dreams, feelings of hopelessness or a decrease in the dreamers' engagement in social interactions. Similar characteristics might then be expected in the dreams of Ukrainian refugees. However, in accordance with the continuity hypothesis of dreaming (Hall and Nordby 1972; Schredl 2019), it can be assumed that the Ukrainians' dreams are affected not only by war trauma, but also by the women's experiences of their migrant life in Poland. Therefore, in the Discussion section of this current study some peculiarities of these dreams are presented against the most common features of the dream content of trauma survivors.

## 2. Material and Methods

Between January and September 2023, I conducted face-to-face interviews with 50 Ukrainian female refugees who

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reported a total of 214 dreams from the period of their stay in Poland (on average 4,28 dreams per person, the range was 0-13). I asked them questions about dream content and dream experiences (about their most recent dreams, war-related and emigration-related dream content, characteristics of nightmares, potential adaptive effects of some dreams, my informants' dream beliefs and dream sharing customs, and generally the ways in which they experienced and understood their dreams), as well as their waking PTSD symptoms as defined in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association 2013). The exact interview questions are provided in Appendix. Due to time restrictions, the PTSD diagnoses were assessed using a shortened version of PSSI-5 – the Posttraumatic Stress Disorder Symptom Scale Interview for DSM-5 (Foa et al. 2016) – with the inclusion of questions about dissociative symptoms. I collected also demographic data such as the interviewees' age, education, and marital status. The participants were recruited by announcements sent to institutions that provided help for Ukrainian refugees (night shelters, language schools, kindergartens, etc.).

The one-time interviews (of about 30-40 minutes) were recorded and then transcribed. Our talks were held in Russian (as it is the mother-tongue for most Ukrainians from the eastern – most affected by the war – part of the country), in Polish (with those who spoke this language fluently), and, in one case, in English.

The sample size was determined in accordance with Domhoff's (1996, 64-67) suggestion that for quantitative dream content research a set of 100 dream reports is sufficient, but larger sets (above 200 dream reports) enable more reliable results.

The women were from 18 to 75 years old (the mean age was 40,88 years). Most of them were well educated (higher education – 70%, college students – 12%, secondary education – 14%, vocational education – 4%). 56% of them were singles (among the singled women: unmarried and not in a relationship – 28%, divorced – 16%, widowed – 12%).

54% of the Ukrainian women met the criteria sufficient to diagnose PTSD. In addition to this diagnosis, in the whole sample of my informants (N = 50) I isolated two subsamples: the most traumatized women (N = 12) and the least traumatized ones (N = 7). The former were women suffering from PTSD, the symptoms of dissociation (depersonalization and/ or derealization) – an additional indicator of PTSD severity recommended in DSM-5, and nightmares. The latter did not suffer from any of the three complaints. The reason for distinguishing these subsamples was the fact that the assessment of the informants' level of traumatization based solely on the PTSD diagnosis turned out unreliable because many of those women who did not develop the symptoms of avoidance (one of the PTSD criteria) and therefore could not be diagnosed with PTSD, suffered from all other symptoms very severely. Unwanted upsetting memories, negative affects and thoughts, feelings of isolation, hypervigilance, sleep problems and other afflictions occurred frequently to the refugees in my study. Moreover, 43% of women who did not meet the criteria of PTSD reported having either or both of the two symptoms of the dissociative specification. Additionally, 58% of the interviewees answered positively when asked if they had experienced nightmares since their arrival in Poland, although not all of them were able to recount a nightmarish dream.

Data concerning different kinds of the Ukrainian female refugees' dreams in connection with their social status and PTSD symptoms are available in the Mendeley Data repository (Owczarski 2024) at:

<https://data.mendeley.com/datasets/k5pp237b98/2>.

The dream reports were coded in accordance with the Hall/ Van de Castle (1966) system for the following dream content categories: characters, aggressive and friendly interactions, emotions, strivings (successes and failures), and good fortunes and misfortunes. The dreams were coded by three of my students. We had all previously discussed the coding procedure in detail, and I supervised the coding process (by comparing 30% of each student's codes with the dream reports and by consulting with them whenever any doubts arose regarding coding method). The inter-coder agreement ranged from  $r = .98$  (misfortunes) to  $r = .86$  (friendly interactions).

The results were compared to the Hall and Van de Castle's dream content norm for women established on the basis of dream reports collected from 200 American university students in the late-1940s (500 female dreams), to the Polish norm for women that I obtained in 2017 from a 300-person representative sample of Poles (160 female dreams) (partly published in Owczarski 2023a), and to the Taitz, Kozmová, Krippner, and Tartz's (2021) dream content findings on women's dreams obtained from 200 Ukrainian people who attended dream seminars in 1995-1998 (100 female dreams). The whole sample of my informants' dreams (N = 214) was also compared with their most recent dreams (N = 74), the most traumatized women's dreams (N = 69), and the least traumatized women's dreams (N = 23). In the Taitz et al. (2021) results (that I called the "Ukrainian norm"), I re-calculated some percentages based on the frequencies provided, because in some cases the authors computed percentages differently from the Hall and Van de Castle's manner (for instance, the percentage of familiar characters was determined in relation to all characters instead of human characters).

The justification for choosing the American, Polish, and Ukrainian control groups is that, firstly, the Hall and Van de Castle's norm, although established long ago and in a social reality hardly comparable to the situation of Ukrainian war refugees, is still widely used as an important and reliable reference point in dream content research; secondly, the Polish norm from 2017 is temporally closest to my Ukrainian sample that contains dreams dreamt on the Polish soil; and thirdly, the Ukrainian people, even though their dream reports come from the mid-1990s, are an obvious control group for my study.

In the statistics, the Hall and Van de Castle's (1966) procedures described by Domhoff (1996) were used, so proportions are provided in percentages and Cohen's (1977) "h" is used to calculate effect sizes. All analyses were two-tailed.

### 3. Results

The most important differences between my findings and the norms can be observed in the following categories: the average number of characters per dream, familiar characters, children, dreams with aggression, victimization percent, dreams with friendliness, befriender percent, negative emotions, dreams with successes, dreams with failures, dreamer-involved successes percent, dreamer-involved failures percent, dreams with misfortune, dreams with good fortune, and dreamer-involved good fortune percent.

Table 1. Percentages of characters in Ukrainian female refugees' dreams and in Ukrainian, Polish, and American dream content norms (\* Numbers with asterisks indicate frequencies, not percentages).

Dream content category	Whole sample N=214	Most recent dreams N=74	Most traum. women's dreams N=69	Least traum. women's dreams N=23	Ukrainian norm N=100	Polish norm N=160	American norm N=500
Total characters	270*	110*	101*	32*	201*	398*	1423*
Average number per dream	1.26*	1.48*	1.46*	1.39*	2.01*	2.48*	2.8*
Creatures	0	0	0	0	-	1	0
Animals	7	7	7	6	10	12	4
Human char.	93	93	93	94	89	87	96
Male	38	33	40	30	35	38	37
Female	34	39	34	30	26	32	40
Joint sex	9	11	10	10	-	20	13
Indefinite	18	17	16	30	-	10	9
Familiar char.	77	75	82	73	47	57	58
Unfamiliar char.	23	25	18	27	53	43	42
Adults	82	83	79	93	-	88	93
Teenagers	3	4	0	0	-	2	1
Children	14	13	21	3	-	8	4
Babies	1	0	0	3	-	2	1
Poles	5	3	5	0	-	-	-
Friends percent	23	27	16	23	21	17	37

**Whole sample** – all dreams of Ukrainian female refugees;

**Most recent dreams** – most recent dreams of Ukrainian female refugees;

**Most traum. women's dreams** – all dreams of the most traumatized refugees (those suffering from **all** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization] and nightmares);

**Least traum. women's dreams** – all dreams of the least traumatized refugees (those not suffering from **any** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization], and nightmares);

**Ukrainian norm** – dream content norm for Ukrainian women based on Taitz, Kozmová, Krippner, and Tartz's (2021) findings;

**Polish norm** – dream content norm for Polish women obtained by Owczarski (2023a);

**American norm** – dream content norm for American women established by Hall and Van de Castle (1966);

There are no big differences between the whole sample of the Ukrainian female refugees' dreams and their most recent dreams. Therefore, I will present the comparisons of the whole sample to the norms. The subsamples of the dreams of the most and the least traumatized women differ substantially from each other and from the whole sample, but their sizes are small, so only the biggest and most interesting differences will be presented.

### 3.1. Characters

The average number of characters per dream is 1,26 in the overall sample, while in the Ukrainian, Polish, and American norms it is 2,01, 2,48, and 2,80 respectively. The Ukrainian female refugees dream of other people much less often than non-traumatized women.

Highly significant are differences in the percentages of familiar characters. In the Ukrainian women's dreams, familiar characters make 77% of all human characters, whereas in the Ukrainian norm this percentage is 47% ( $h=+.63, p<.01$ ), in the Polish norm it is 57% ( $h=+.43, p<.01$ ), and in the American norm it is 58% ( $h=+.41, p<.01$ ). The Ukrainian refugees dream about friends (i.e. known characters excluding family members and relatives) less often than in the American norm ( $h=-.30, p<.01$ ), but there are no significant differences in comparison with the Polish and Ukrainian norms. Children make as much as 14% of all human characters in the Ukrainian female migrants' dreams, while in the norms these figures are smaller: 4% ( $h=+.46, p<.01$ ) and 8% ( $h=+.19, p<.05$ ) in the American and Polish norms respec-

tively. (This percentage was not provided in the Ukrainian norm). Additionally, there is a huge disproportion of children in the dreams of the most and the least traumatized women. For the former this percentage is 21% and for the latter it is only 3% ( $h=+.60, p<.01$ ). These and other data on characters are shown in Table 1. The effect sizes ( $h$ ) of statistically significant differences in all dream content categories are illustrated graphically in Figure 1.

### 3.2. Aggressive interactions

In the overall sample of my informants, the percentage of dreams in which aggressive interactions occur is 29%. It is bigger than in the Ukrainian norm (17%,  $h=+.29, p<.05$ ), but smaller than in the American (44%,  $h=-.31, p<.01$ ) norm. (In comparison with the Polish norm, the difference is statistically insignificant).

The Ukrainian migrants are much more often victims than aggressors in their dreams. The victimization percent for the whole sample is 92% – definitely higher than in the American (67%,  $h=+.65, p<.01$ ) and Polish (77%,  $h=+.43, p<.05$ ) norms and insignificantly higher than in the Ukrainian norm. Surprisingly, in the sample of the least traumatized women this percentage is 100% which means that they never initiate aggressive interactions but are always the victims in their dreams. These and other data on aggressive interactions are shown in Table 2.

Table 2. Percentages of aggressive interactions in Ukrainian female refugees' dreams and in Ukrainian, Polish, and American dream content norms (\* Numbers with asterisks indicate frequencies, not percentages).

Dream content category	Whole sample N=214	Most recent dreams N=74	Most traum. women's dreams N=69	Least traum. women's dreams N=23	Ukrainian norm N=100	Polish norm N=160	American norm N=500
Dreams with aggr.	29	23	22	30	17	38	44
Total aggressions	72*	19*	19*	7*	28*	95*	337*
Dreamer-involved aggressions	90	89	89	86	86	76	81
Witnessed aggr.	10	11	11	14	14	24	19
Dreamer as aggressor	8	6	6	0	21	22	28
Dreamer as victim	90	88	94	100	75	75	57
Dreamer as reciprocal	2	0	0	0	4	1	10
Dreamer mutual	0	6	0	0	0	1	4
Dreamer self-aggression	0	0	0	0	0	0	1
Victimization percent	92	94	94	100	78	77	67
Poles as aggressors	42	0	20	-	-	-	-
Poles as victims	8	0	0	-	-	-	-
Aggression/Character index	27	17	19	22	14	24	24

Whole sample – all dreams of Ukrainian female refugees;

Most recent dreams – most recent dreams of Ukrainian female refugees;

Most traum. women's dreams – all dreams of the most traumatized refugees (those suffering from all of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization] and nightmares);

Least traum. women's dreams – all dreams of the least traumatized refugees (those not suffering from any of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization], and nightmares);

Ukrainian norm – dream content norm for Ukrainian women based on Taitz, Kozmová, Krippner, and Tartz's (2021) findings;

Polish norm – dream content norm for Polish women obtained by Owczarski (2023a);

American norm – dream content norm for American women established by Hall and Van de Castle (1966);

### 3.3. Friendly interactions

The percentage of dreams with friendly interactions in the whole sample (25%) is smaller than in

the Polish (38%,  $h=-.28$ ,  $p<.01$ ) and American (42%,  $h=-.36$ ,  $p<.01$ ) norms, but it is very close to the Ukrainian norm. Unlike in the norms, the Ukrainian female refugees

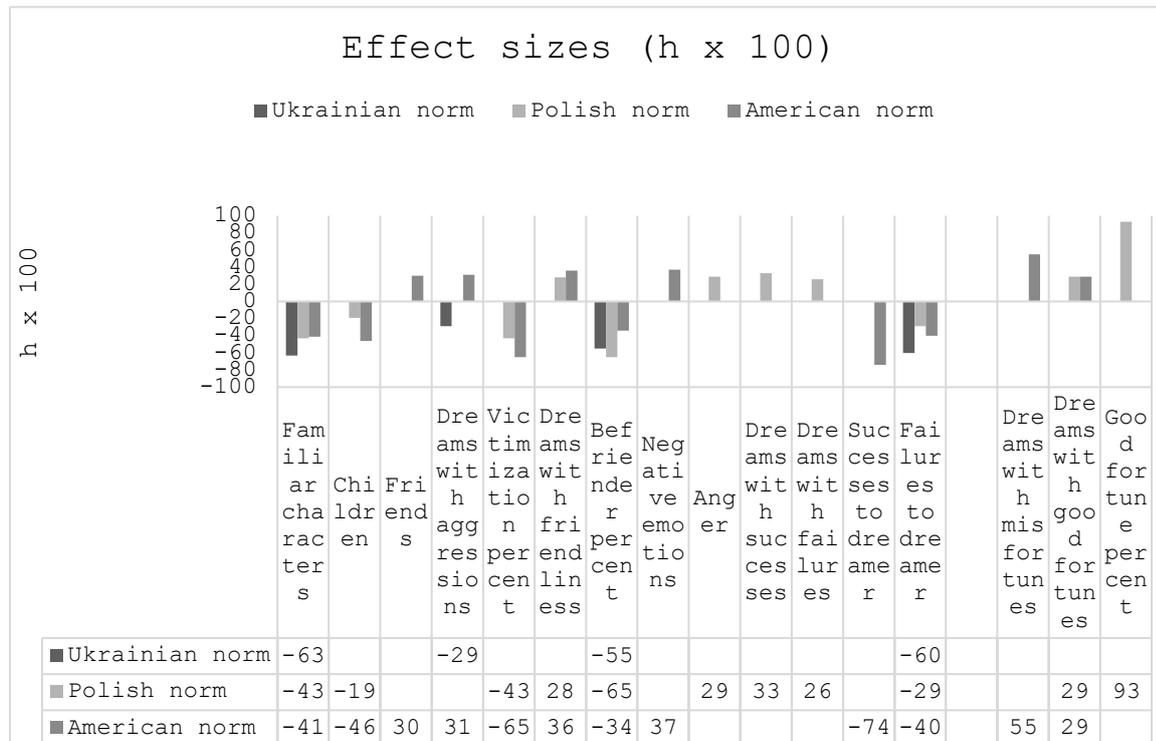


Figure 1. Effect sizes ( $h \times 100$ ) of statistically significant differences between specific content categories in Ukrainian female refugees' dreams and Ukrainian, Polish, and American dream content norms.

Effect sizes ( $h$ ) are multiplied by 100. The abscissa (horizontal line,  $h=0$ ) represents the entire sample of the Ukrainian female refugees' dreams. Values of the Ukrainian, Polish, and American norms are shown in the bars. In this figure, the norms are compared to the sample, and not vice-versa as it is in the main body of the article. Therefore, the signs „+“ and „-“ are reverse to those in the text.

Table 3. Percentages of friendly interactions in Ukrainian female refugees' dreams and in Ukrainian, Polish, and American dream content norms (\* Numbers with asterisks indicate frequencies, not percentages).

Dream content category	Whole sample N=214	Most recent dreams N=74	Most traum. women's dreams N=69	Least traum. women's dreams N=23	Ukrainian norm N=100	Polish norm N=160	American norm N=500
Dreams with friendliness	25	34	28	22	21	38	42
Total friendliness	60*	27*	22*	7*	28*	95*	308*
Dreamer-involved friendliness	93	96	91	100	89	97	84
Witnessed friendliness	7	4	9	0	11	3	16
Dreamer as befriender	54	58	55	57	36	22	41
Dreamer as befriended	30	19	30	29	60	45	46
Dreamer as reciprocal	0	0	0	0	0	0	1
Dreamer mutual	14	19	10	14	4	33	4
Dreamer self-friendliness	1	4	5	0	0	0	0
Befriender percent	64	75	65	67	37	32	47
Poles as bendifenders	8	0	20	-	-	-	-
Poles as befriended	8	0	0	-	-	-	-
Friendliness/Character index	22	25	22	22	14	24	22
Aggression/Friendliness percent	55	41	46	50	49	50	52

**Whole sample** – all dreams of Ukrainian female refugees;

**Most recent dreams** – most recent dreams of Ukrainian female refugees;

**Most traum. women's dreams** – all dreams of the most traumatized refugees (those suffering from **all** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization] and nightmares);

**Least traum. women's dreams** – all dreams of the least traumatized refugees (those not suffering from **any** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization], and nightmares);

**Ukrainian norm** – dream content norm for Ukrainian women based on Taitz, Kozmová, Krippner, and Tartz's (2021) findings;

**Polish norm** – dream content norm for Polish women obtained by Owczarski (2023a);

**American norm** – dream content norm for American women established by Hall and Van de Castle (1966);

more often initiate friendly interactions than receive friendliness from other dream characters. The befriender percent (obtained by dividing the number of cases in which the dreamer is a befriender by the number of cases in which she is a befriender or a befriended) in the overall sample (64%) is significantly higher than in the Ukrainian (37%,  $h=+.55$ ,  $p<.05$ ), Polish (32%,  $h=+.65$ ,  $p<.01$ ), and American (47%,  $h=+.34$ ,  $p<.05$ ) norms. The subsamples of the most and the least traumatized women do not differ significantly from each other and from the whole sample.

Despite the differences between my informants' dreams and the norms in terms of both aggressiveness and friendliness, the proportion of the two kinds of interaction (called by Hall and Van de Castle aggression/friendliness percent) is very similar in the refugees' dreams and in the norms – it is 55% in the whole sample and 49%, 50%, and 52% in the Ukrainian, Polish, and American norms respectively. These and other data on friendly interactions are shown in Table 3.

### 3.4. Emotions

In the normative findings, there is a big percentage of negative emotions – compared to the positive ones – in dreams. Counterintuitively, in my informants' case this figure is smaller. The percentage of the dreamers' own negative emotions in the overall sample is 66%, while in the American norm it is as high as 82% ( $h=-.37$ ,  $p<.01$ ). In the Ukrainian and Polish norms it is also higher than in the Ukrainian women's dreams, but the differences are statistically non-significant.

Of some interest may be the fact that the female refugees rarely dream about anger. The dreamers' own anger makes only 5% of all emotions, whereas this percentage in the Pol-

ish norm is 13% ( $h=-.29$ ,  $p<.01$ ). This figure is not provided in the Ukrainian norm. In the American norm it does not differ significantly from the refugees' dreams. Moreover, the least traumatized women do not dream of being angry at all. These and other data on emotions are shown in Table 4.

### 3.5. Successes and failures

Successes appear in 4% of all dreams of the Ukrainian female migrants – less often than in the Polish norm (13%,  $h=-.33$ ,  $p<.01$ ). In comparison with the Ukrainian and American norms, the differences are non-significant.

The percentage of dreams with failures in the overall sample (10%) is similar as in the Ukrainian and American norms, but smaller than in the Polish norm (19%,  $h=-.26$ ,  $p<.01$ ).

All successes in my sample are experienced by the dreamers themselves, not by other characters, whereas dreamer-involved successes make 87% ( $h=+.74$ ,  $p<.01$ ), 91% ( $h=+.61$ ,  $p>.05$ ), and 86% ( $h=+.77$ ,  $p>.05$ ) in the American, Polish, and Ukrainian norms respectively. (Although in comparison with the Polish and Ukrainian norms the differences are statistically non-significant, the effect sizes are big enough to regard the deviations as worth noticing). The percentage of dreamer-involved failures in the Ukrainian refugees' dreams is 95% compared to 75% in the Ukrainian norm ( $h=+.60$ ,  $p<.01$ ), 87% in the Polish norm ( $h=+.29$ ,  $p<.01$ ), and 83% in the American norm ( $h=+.40$ ,  $p<.01$ ).

Both in my sample and in the norms, failures predominate over successes. These and other data on successes and failures are shown in Table 5.

Table 4. Percentages of emotions in Ukrainian female refugees' dreams and in Ukrainian, Polish, and American dream content norms (\* Numbers with asterisks indicate frequencies, not percentages).

Dream content category	Whole sample N=214	Most recent dreams N=74	Most traum. women's dreams N=69	Least traum. women's dreams N=23	Ukrainian norm N=100	Polish norm N=160	American norm N=500
Total number of emotions	191*	73*	58*	24*	44*	197*	420*
Emotions per dream	0.89*	0.66*	0.84*	1.04*	0.44*	1.23*	0.84*
Happy	35	29	36	37	25	28	20
Sad	11	11	9	17	-	9	13
Anger	6	7	7	0	-	13	13
Confusion	10	13	9	21	-	11	18
Apprehension	38	36	40	25	-	39	37
Negative emotions percent	65	71	64	62	75	72	80
Dreamer's own Emotions:	95 (182*)	99 (72*)	95 (55*)	100 (24*)	84 (37*)	81 (160*)	84 (351*)
Happy	34	28	35	37	24	26	18
Sad	11	11	9	17	-	7	13
Anger	5	7	5	0	-	13	9
Confusion	11	18	9	21	-	11	20
Apprehension	39	36	42	25	-	43	40
Negative emotions percent	66	72	65	62	76	74	82

**Whole sample** – all dreams of Ukrainian female refugees;

**Most recent dreams** – most recent dreams of Ukrainian female refugees;

**Most traum. women's dreams** – all dreams of the most traumatized refugees (those suffering from **all** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization] and nightmares);

**Least traum. women's dreams** – all dreams of the least traumatized refugees (those not suffering from **any** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization], and nightmares);

**Ukrainian norm** – dream content norm for Ukrainian women based on Taitz, Kozmová, Krippner, and Tartz's (2021) findings;

**Polish norm** – dream content norm for Polish women obtained by Owczarski (2023a);

**American norm** – dream content norm for American women established by Hall and Van de Castle (1966);

### 3.6. Misfortunes and good fortunes

The percentage of dreams with misfortunes in my sample (11%) is close to the Polish and Ukrainian norms but significantly lower than in the American norm (33%,  $h=-.55$ ,  $p<.01$ ). Good fortunes appear in 1% of the Ukrainian refugees' dreams, while this percentage is 6% in both the Polish and American norms ( $h=-.29$ ,  $p<.01$  in both cases). The deviation from the Ukrainian norm is non-significant.

The good fortunes percent (obtained by dividing the number of dreamer-involved good fortunes by the number of dreamer-involved good fortunes and misfortunes) in my sample (7%) is substantially smaller than in the Polish norm (45%,  $h=-.93$ ,  $p<.01$ ). There are no significant deviations from the Ukrainian and American norms. These and other data on misfortunes and good fortunes are shown in Table 6.

## 4. Discussion

The relatively small differences in dream content between the whole sample and the subsample of the most recent dreams may suggest that several months after the outbreak of the war, the refugees' dreams are still affected by their traumatic experiences. The most recent dreams are similar to the earlier ones which probably means that the process of recovery from trauma remains at its initial stage. It has been proven that changes in dream content indicate a progress in coping with trauma (e.g. Hartmann 2001; Wilmer 2001; Valli et al. 2006; Punamäki 2007; Cartwright 2012).

In accordance with the continuity hypothesis of dreaming, the small average number of characters per dream can reflect the social isolation of the Ukrainian female refugees in

Poland. During our talks, I learned that they did not develop strong relationships with either Poles or the Ukrainian diaspora. Most of them live alone or with their children and rarely contact other people. They often suffer from loneliness.

The significantly increased percentage of familiar characters in comparison with the norms, associated with similar percentages in the category of friends, means that the Ukrainian women often dream of their family members. This is consistent with their waking concerns about the loved ones who remained in Ukraine. Such correspondence of waking thoughts and dreams can be explained in light of the continuity hypothesis, but it can also support the compensatory theories of dreaming (Jung 1974). I demonstrated that dreams of returning to Ukraine and meeting the loved ones often helped the Ukrainian migrants overcome their feelings of sadness and hopelessness (Owczarski 2025). The compensatory theories cannot, however, explain the increased percentage of children in the Ukrainian refugees' dreams. These women are concerned with their children's fate in the difficult time, so they dream about children more often than other women. The most traumatized informants dream about children much more often than the least traumatized ones. This disproportion indicates that children in the female refugees' dreams are predominantly associated with stressful situations.

Low percentage of dreams with aggressive interactions was reported in many studies on traumatized populations. I found that in the dreams of nursing home residents in Poland this figure for women was as small as 13% (Owczarski 2014), and in the former Auschwitz inmates' dreams it was 30% (Owczarski 2023a). Pigeon, Carr, and Mellman (2021) demonstrated that in the dreams of people with trauma-

Table 5. Percentages of successes and failures in Ukrainian female refugees' dreams and in Ukrainian, Polish, and American dream content norms (\* Numbers with asterisks indicate frequencies, not percentages).

Dream content category	Whole sample N=214	Most recent dreams N=74	Most traum. women's dreams N=69	Least traum. women's dreams N=23	Ukrainian norm N=100	Polish norm N=160	American norm N=500
Dreams with successes	4	4	2	9	7	13	8
Dreams with failures	10	7	12	4	7	19	10
Number of successes	9*	4*	1*	2*	7*	22*	38*
Numbers of failures	22*	9*	9*	1*	8*	32*	54*
Dreamer-involved successes	100	100	100	100	86	91	87
Dreamer-involved failures	95	100	89	100	75	87	83
Dreamer-involved success percent	30	31	11	67	50	42	42

**Whole sample** – all dreams of Ukrainian female refugees;  
**Most recent dreams** – most recent dreams of Ukrainian female refugees;  
**Most traum. women's dreams** – all dreams of the most traumatized refugees (those suffering from **all** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization] and nightmares);  
**Least traum. women's dreams** – all dreams of the least traumatized refugees (those not suffering from **any** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization], and nightmares);  
**Ukrainian norm** – dream content norm for Ukrainian women based on Taitz, Kozmová, Krippner, and Tartz's (2021) findings;  
**Polish norm** – dream content norm for Polish women obtained by Owczarski (2023a);  
**American norm** – dream content norm for American women established by Hall and Van de Castle (1966);

related injuries from life-threatening events this percentage was 28% (although it was 38% for those who developed PTSD and 21% for the rest of the sample). The decreased number of dreams with aggressions in the case of the Ukrainian female refugees (29%) may illustrate – similarly as in the nursing home residents – a more general tendency to passive behaviors. I proposed that passivity in dreams can have beneficial effects for traumatized people as it helps the dreamers “withdraw” from their everyday social relationships and forget, at least for some moments, about their waking concerns (Owczarski 2014). It must be added, however, that dream researchers usually explain passivity as an indicator of the dreamer's psychological or cognitive

problems (Zanasi et al. 2008; Sándor, Szakadát, and Bódizs 2016; Roesler 2020; Wittmann et al. 2022).

Passivity in the dreams of my informants is visible not only in the low number of aggressions, but also in the decreased number of friendly interactions and in the very high victimization percent. Both of these deviations from norms were observed in Auschwitz prisoners (Owczarski 2023a) and nursing home residents (Owczarski 2014), and a decrease in friendliness was found in the injury sufferers (Pigeon, Carr, and Mellman 2021 – the victimization percent was not revealed in this study).

Low percentage of dreams with friendliness can perhaps be explained – similarly to diminished aggressiveness – as

Table 6. Percentages of misfortunes and good fortunes in Ukrainian female refugees' dreams and in Ukrainian, Polish, and American dream content norms (\* Numbers with asterisks indicate frequencies, not percentages).

Dream content category	Whole sample N=214	Most recent dreams N=74	Most traum. women's dreams N=69	Least traum. women's dreams N=23	Ukrainian norm N=100	Polish norm N=160	American norm N=500
Dreams with misf.	11	9	12	9	17	12	33
Dreams with g.f.	1	1	1,5	0	2	6	6
Number of misf.	29*	11*	8*	3*	22*	21*	206*
Number of g.f.	2*	1*	1*	0*	2*	11*	29*
Misf. to dreamer	52	45	50	67	59	57	67
G.f. to dreamer	50	0	0	0	100	91	79
Misf. to other characters	48	55	50	33	41	43	33
G.f. to other characters	50	100	100	0	0	9	21
Dreamer-inv. g.f. percent	7	0	0	0	14	45	14

**Whole sample** – all dreams of Ukrainian female refugees;  
**Most recent dreams** – most recent dreams of Ukrainian female refugees;  
**Most traum. women's dreams** – all dreams of the most traumatized refugees (those suffering from **all** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization] and nightmares);  
**Least traum. women's dreams** – all dreams of the least traumatized refugees (those not suffering from **any** of the three symptoms – PTSD, dissociative specification [depersonalization and/or derealization], and nightmares);  
**Ukrainian norm** – dream content norm for Ukrainian women based on Taitz, Kozmová, Krippner, and Tartz's (2021) findings;  
**Polish norm** – dream content norm for Polish women obtained by Owczarski (2023a);  
**American norm** – dream content norm for American women established by Hall and Van de Castle (1966);

a coping dream mechanism that allows the dreamers to feel less connected with the social reality they live in. On the other hand, however, a lack of friendly interactions in dreams can be interpreted as a sign of social isolation.

Interestingly, the Ukrainian norm for friendly interactions differs from the Polish and American norms and is relatively close to the results in the Ukrainian female refugees sample. This may suggest that the dream content differences between my informants and the Polish/American normative findings are caused by cultural factors rather than the Ukrainian migrants' traumatic experiences. But it is also likely that the Ukrainian attendees of dream seminars in the mid-1990s were traumatized due to geopolitical reasons, as the authors of the study (Taitz, Kozmová, Krippner, and Tartz 2021) propose.

The Ukrainian female migrants rarely dream of friendliness, but when they dream about it, they are more often befrienders than befriended. The befriender percent in the dreams of female nursing home residents is 21% (Owczarski 2014), and in the case of female Auschwitz inmates it is 12% (Owczarski 2023a), while in my informants' dreams it is 64%. A possible explanation for this tendency is that the Ukrainian refugees feel the need for overcoming their social isolation and being accepted by other people. It is also likely that they seldom receive friendliness in their waking lives in Poland, so they do not dream about being befriended.

Passivity manifested in an enormously high victimization percent (92% in the case of my interviewees) is an evident indicator of traumatization. An increase in this percentage was found in the dreams of people suffering from depression (Bollea et al. 1978) and anxiety disorder (Gentil and Lader 1978). In the Auschwitz inmates' dreams, the victimization percent was as big as 98% (Owczarski 2023a). However, the fact that the least traumatized Ukrainian women never act as aggressors but are always the victims in their dreams may support the hypothesis that passivity plays a beneficial role in dreaming, even at the price of experiencing victimization.

The diminished proportion of negative emotions (against the positive ones) in my informants' dreams, although counterintuitive, is not unprecedented. Usually, in the dreams of traumatized people this percentage is bigger than in the norms. It is 91% for female Auschwitz prisoners (Owczarski 2023a), and as high as 96% for the injury sufferers with PTSD (Pigeon, Carr, and Mellman 2021). Depressive patients also reveal an increase in negative emotions in their dreams (Bollea et al. 1978; Riemann et al. 1990). However, the Polish residents of nursing homes dreamt of negative emotions less often than of the positive ones. This figure for female residents (46%) (Owczarski 2014) was even lower than for the Ukrainian refugees (66%). I suggested that the elderly people in caring institutions had a specific kind of therapeutic dreams in which they came back to their happy past instead of being confronted with their present life situation (Owczarski 2014). Possibly, a similar process occurs in the dreams of the Ukrainian female migrants. As I demonstrated (Owczarski 2025), they often dream about returning home to the happy moments of life from before the war, no wonder then that the proportion of negative emotions in their dreams is lower than normally.

The low percentage of anger in my informants' dreams seems consistent with the lack of aggressiveness. The Auschwitz inmates also dreamt of anger very rarely – this figure for women was 3% (Owczarski 2023a).

A decreased success percent in the dreams of a traumatized population is not surprising. Interestingly, the Ukrainian female refugees dream exclusively of their own successes and almost exclusively of their own failures. Possibly, this is another sign of their social isolation and, perhaps, of the dreamers' attempts to withdraw their attention from the external world.

The low percentage of good fortunes against misfortunes in my informants' dreams is also nothing strange. It is consistent with a similar tendency in the dreams of the injury sufferers, especially those who developed PTSD (Pigeon, Carr, and Mellman 2021).

## 5. Conclusions

The quantitative findings on the dreams of the Ukrainian female refugees to Poland – especially those on characters and social interactions – suggest that the women feel lonely and socially isolated. This conclusion finds support in what the informants were talking about their waking experiences during the interviews (although no direct questions about loneliness or isolation were asked). The feeling of isolation may be caused not only by their war trauma and separation from the loved ones, but also by their poor integration with the Polish people. It would be recommended that the Polish authorities and social workers pay greater attention to this problem and try to enhance the integration processes.

The content of the Ukrainian migrants' dreams in many aspects is consistent with other findings on the dreams of traumatized populations. Therefore, it is evident that the experience of war and migration had a traumatizing impact on the informants and that they still live under constant stress.

In the category of negative versus positive emotions, the Ukrainian women's dreams differ not only from the norms, but also from the dreams of other people with difficult life experiences. The low percentage of negative emotions in my sample cannot be explained in light of the continuity hypothesis of dreaming as an illustration of the subjects' waking emotions. Rather, it reflects a compensatory dream mechanism aimed at enabling the dreamers to re-experience their happy past (Owczarski 2025), similarly as it was in the case of nursing home residents in Poland (Owczarski 2014).

Most of the findings in this study can be discussed in the context of the continuity hypothesis, but at the same time many of them seem to suggest the existence of beneficial dream processes that purposely weaken the dreamers' involvement in the real world. These processes manifest themselves in passive dream behaviors, especially in the realm of social interactions. Passivity in the dreams of traumatized people can perhaps be regarded as a coping strategy, a way of "withdrawal" from waking concerns. More research is needed to verify this hypothesis.

## 6. Limitations

The present study concerns female subjects only. It would be interesting to also investigate the dream content of male refugees, not to mention the Ukrainians (both male and female) who fight on the battlefields or just stay in the country under the constant threat of bombings and Russian war crimes.

One-time interviews with the subjects are a limitation of my study as well. It was impossible for most of them to de-

vote more than 30-40 minutes to our talks, so they could not be asked to describe in detail their life histories and their dreams from before the war. A comparison of their pre-war and migrant dreams would shed light on the dream content changes after trauma.

The method of face-to-face interviews, although useful as it enables the interviewer to ask additional questions about the dream content details, may lead to censoring embarrassing or unpleasant dreams by the informants. Therefore, the result might have been biased to some extent by this form of data collection.

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## Appendix

The questions asked during the interview were the following:

1. Please describe your most recent dream or dreams, i.e. the last dream/ dreams you remember. Can you specify the approximate date of this dream/ these dreams? Be sure to tell fully and exactly what happened in the dreams to you and to other characters. If possible, describe your feelings during the dreams.
2. Please describe your dream or dreams that in your opinion was/ were in any way connected with your war experiences. Why do you think that this dream/ these dreams is/ are connected with your war experiences?
3. Please describe your dreams connected with your migrant situation. They may include the dreams associated with your life in Poland and/ or with your thoughts about Ukraine.
4. Please describe your dreams that you experienced as helpful. These may be dreams that affected you positively in any way, for instance by improving your psychological wellbeing, mood, or social functioning. Please name the benefits these dreams brought you.
5. Have you had nightmares since your arrival in Poland? If so, could you describe them?
6. Please describe other dreams you remember from the time of your stay in Poland.
7. Do you share your dreams with other people? Why/ why not? Whom do you usually tell your dreams? Do people share their dreams with you? Who does?
8. Do you pay attention to your dreams? Do you try to understand or interpret them? If so, in what ways?