

# Learned Helplessness, Resilience, and Time Perspective in Ukrainian and Israeli Citizens Amid Prolonged Warfare: Social and Neurobehavioral patterns

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## Abstract

The incessant, incomprehensible war in Ukraine and Israel inevitably determines everyday uncertainty and chronic stress, which significantly affect the mental health, well-being and functioning of the civilian population. This study examines the problem of studied helplessness, resilience and understanding of life in the context of the perception of a temporary perspective among Ukrainian and Israeli citizens. The study highlights the possibility of using the "Unified Framework for Integrated Psychological Assessment and Intervention," which combines metacognitive, neuropsychological and psychodynamic approaches. This framework is proposed as the

most important strategy for meeting the complex psychological needs of people in war-affected areas. By applying this comprehensive framework, mental health professionals can develop more thoughtful and effective support systems, increase resilience, encourage future-oriented thinking, and mitigate feelings of helplessness, ultimately improving the well-being of a person living in a prolonged environment.

### **Keywords**

helplessness, resilience, time perspective, prolonged war, neurobehavioral patterns.

### **Introduction**

The ongoing war in Ukraine and Israel supports conditions of uncertainty and chronic stress. The phenomenology of the psychological consequences of such protracted wars is important for the creation of effective measures and complexes of support for citizens. Prolonged stay in a combat zone disrupts the functioning of mental health. Anderson et al. (2019) found a link between uncertainty and a person's ability to influence circumstances, pointing out that prolonged and unchanging exposure to unpredictable stresses leads to increased levels of trigos and depression. In addition, the constant threat of being a victim of violence and environmental instability significantly changes everyday life, habits, determining the feeling of helplessness and powerlessness, which is a concomitant factor in many behavioral and mental disorders. Unfortunately, the considered problem has not only historical foundations, but also real events of the war in Ukraine and Israel.

Contemporary research in Ukraine confirms the impact of prolonged war on the well-being and mental health of the civilian population (Rudenko, 2022). The complicated psychological consequences of Russian military aggression for Ukrainian citizens include increased levels of anxiety, depression and PTSD (Lunov, Lytvenko, Maltsev, & Zlatova, 2022; Kokun, 2023). Particular attention should be paid to the issue of military terrorism and the adequacy of the behavioral reactions of the civilian population to terrorist threats (Lunov, Maltsev, Matiash, Mosiichuk, Tkach, 2023). The psychological impact of a long war, which in different classifications is defined as "hybrid," "full-scale," "atypical" on Ukrainian citizens, is largely determined by their coping behavior strategies. Previous studies (Maltsev, 2017) have identified such mechanisms for overcoming problems as problem solving, self-control and proactive adaptation, which play a key role in ensuring and maintaining personal security in the context of territorial orientation, primarily in regions close to combat and terrorist zones. Physical proximity to the territories of military threats has a negative impact on the basic beliefs of people, emphasizing the importance of overcoming resources in mitigating the negative psychological consequences of a long war (Maltsev, 2017). In addition, we found a significant psychosomatic effect on the health of Ukrainian men during the Russian-Ukrainian war, which emphasizes the need for a mental health support system (Lunov, Matiash, Abdriakhimova, Pavlov and Dzeruzhynska, 2024).

The case of Israel is classic in the context of a long war. Studies confirm that the Israeli population exposed to prolonged war shows high levels of stress and PTSD (Schimmelfennig et al., 2023). In addition, research by Veronese et al. (2021) and Taha et al. (2024) demonstrates the effects of occupation on resilience and mental health in Gaza.

As a rule, most studies are focused on the maladjustment and PTSD in the context of the psychological impact of a long war, other socio-psychological and neurobehavioral factors deserve special attention. It is worth noting that the learned helplessness, resilience and temporal perspective are the most important constructs that open the subject understanding of the psychological state of people living in protracted zones of war.

Learned helplessness, as described by Seligman (Quinles, Nelson, 1988), is distinguished by a strong sense of powerlessness and the belief that no action of an individual can influence their circumstances of life. As is known, learned helplessness is characteristic of individuals living in territories prone to prolonged wars, where a constant tendency to uncontrolled stress, a vital

threat, can lead to patterns of passive behavior and an inevitable feeling of helplessness (Jones, 2014). A study by Boankic et al. (2020) on forced migrants summarizes that prolonged difficulties can contribute to the formation of a culture and narrative of learned helplessness.

Moreover, resilience plays an important role in mitigating the effects of prolonged war. Fino, Mema, and Rousseau (2020) argue that resilience helps mitigate the impact of war trauma on PTSD development, underscoring the importance of measures to increase personal resilience in zones of permanent war.

Regarding the temporal perspective, Zimbardo's research emphasizes its important role in how people perceive the circumstances of their daily lives (Zhang et al., 2013). It should be noted that in areas of constant hostilities, maintaining an adequate life prospect is quite a challenge. In Roozitalab et al. studies (2022) the effectiveness of various forms of life-oriented therapy to improve the psychological well-being of war veterans are emphasized.

The development of neuroscience has shown that the neuropsychological effects of an individual living in protracted war require special attention. For example, the DMN brain network involved in self-reflection undergoes dysfunction under the influence of chronic tension, stress and maladaptation (Buckner, 2013; Liddell et al., 2023). It should be noted that understanding the mechanisms of functioning of brain modes, such as, for example, frontal network (Marek & Dosenbach, 2018) and Salience network (Menon & Uddin, 2010) is essential for analyzing the full range of behavioral problems of the civilian population in war zones.

## Research Focus and Objective

The purpose of the study is to determine the pliers of the learned helplessness, resilience and time perspective, as well as neuropsychological patterns in the citizens of Ukraine and Israel in a long and unpredictable war.

## Literature Review: Psychological and Neurobehavioral Impacts of Prolonged Warfare

### *Learned Helplessness*

The concept of learned helplessness, initially identified in dogs by Seligman and then observed in humans, plays a crucial role in understanding trauma. This psychological phenomenon is characterized by a pervasive sense of powerlessness when people believe that their actions do not affect their circumstances, resulting in symptoms such as passivity, emotional isolation, depression and a permanent sense of helplessness. These symptoms are not only a response to physical events but may also arise from "moral" trauma deeply painful psychological wounds because of actions, or their absence, which violate one's moral or ethical code (Litz et al.).

Integrating learned helplessness into injury research shifts the analytical focus from the Freudian focus on memory loss to understanding trauma as loss of control. This perspective is more in line with modern psychiatric approaches that have moved away from Freudian psychoanalysis. Thus, he discusses the criticisms of theorists, who argue that trauma is mediated by cultural context and that the existing theory of trauma often ignores these influences.

In the context of transmissibility, the helplessness acquired suggests that loss of control, rather than the traumatic memory itself, can spread to people, affecting their activities and perpetuating the cycle of helplessness. This perspective increases the understanding of how trauma can affect not only individuals but also communities.

Ultimately, learned helplessness provides a valuable lens for investigating trauma, emphasizing restoration of control to heal. In literary texts, this restoration can manifest itself through writing, interaction with the environment, spirituality and personal relationships, each offering a therapeutic potential, restoring a sense of activity. Using this theoretical framework, post-traumatic studies can provide a more complete and culturally adapted understanding of traumatic experiences, both in the literature and in the real world.

## ***Relevance to Prolonged Warfare in Ukraine and Israel***

It's crucial to delve into the underpinnings of helplessness when studying the prolonged conflicts, in Ukraine and Israel. The ongoing wars in these regions subject the populace to stress leaving them susceptible to feelings of powerlessness and a lack of agency. By examining the aftermath of these conflicts through the helplessness framework we can gain deeper insights into the coping mechanisms and resilience factors that emerge in highly tense environments.

In situations like those faced by individuals in Ukraine and Israel where violence and instabilities threaten people's sense of control can be undermined by bolstering their resilience. Through community support, cultural traditions and effective coping strategies individuals can counteract the damaging impacts of helplessness. Understanding how these communities navigate the enduring challenges brought about by prolonged warfare can shed light on their fortitude.

Incorporating learned helplessness into trauma research establishes a groundwork for examining the enduring repercussions of war. By interpreting trauma as a loss of agency while highlighting the significance of contextual elements this approach enhances our comprehension of resilience and temporal perspectives within populations affected by conflict. This integrated perspective offers insights with both depth and practical implications in realms such as social psychology and political science.

Russo's (2023) study delves into the real-life experiences of veterans aiming to grasp how learned helplessness, military culture and chronic homelessness intersect. The focus is on veterans who have endured 90 consecutive days of homelessness and currently reside in a therapeutic housing shelter. The study interprets the themes of learned helplessness using Seligman's PERMA + HC model. Encompassing Positive affect, Engagement, Relationships, Meaning, Accomplishment, Health and Control. Russo's research sheds light on how the veterans shift from military to life plays a role in their perception of learned helplessness. Key findings, among the participants include a lack of experiences, reduced engagement levels, unstable relationships, limited sense of purpose feelings of unfulfillment, physical health obstacles and a restricted sense of control. These factors collectively influence their resilience. Furthermore, Russo noted that veterans faced difficulties, in maintaining their connections after leaving the military leading to increased feelings of isolation and helplessness. The veterans mentioned relying on government support programs and having a time functioning independently without assistance. This dependency made it more challenging for them to take charge of their lives and improve their situations. Russo's research highlights the importance of recognizing how transitioning from military to life affects veterans psychologically and the role that learned helplessness plays in their struggles with long term homelessness. The findings of this study can guide targeted efforts to strengthen resilience and provide support, for veterans as they work to overcome obstacles in reintegrating into society.

In research conducted by Bosankić, Mešić and Šošić (2020) explored the impact of prolonged hardships, on both returnees and displaced persons (IDPs) in Bosnia and Herzegovina following the 1992–1995 war. The study sheds light on the reliance on assistance and the considerable employment obstacles encountered by these groups. Through a field investigation involving than 2000 returnees and IDPs the research delves into how external factors influence migrants lives and their ways of coping with a specific emphasis on the role of donor organizations in nurturing a culture of learned dependency. To depict the state of migrants the authors employ the metaphor of a "floating pumpkin"; despite being carried along by aid and circumstances they still uphold their integrity and potential. This metaphor underscores adversity's essence. While it presents challenges it also holds promise for fostering resilience and personal development in individuals. The authors propose that processes such as traumatic growth can enhance an individual's ability to cultivate a sense of personal wisdom enabling them to gain deeper insights into their environment and situation. This viewpoint is, in line with the conversation, on learned helplessness and resilience shedding light on how people cope and adjust to lasting challenges. By emphasizing the possibility of development and adjustment this method offers an understanding of the effects of involuntary migration.

### ***Integration with the Study of Learned Helplessness in Prolonged Warfare***

The incorporation of Bosankić et al.s (2020) research, into the exploration of learned helplessness and resilience among people in Ukraine and Israel dealing with prolonged conflicts offers insights. Like the returnees and displaced persons in Bosnia and Herzegovina individuals in this conflict affected areas face stressors and obstacles that may result in feelings of helplessness. Nonetheless Bosankić et al. findings indicate that adversity can also foster the development of coping strategies and personal growth.

In situations of enduring conflict grasping the interplay between learned helplessness and resilience is essential. The reliance on assistance and the perceived loss of control by individuals living in war torn regions can contribute to a sense of helplessness. Yet acknowledging the potential for responses and growth, amid challenges can guide efforts to bolster and empower these communities. Through nurturing resilience and personal advancement interventions can assist individuals in regaining a sense of agency and enhancing their capacity to confront adversities.

### **The Role of Trait Resilience, in Managing War Trauma and PTSD**

Resilience is the ability to endure and bounce back from challenging situations. Studies show that resilience is not a quality, but a dynamic process influenced by factors like personal traits, community support and cultural background. Having levels of resilience can help lessen the mental effects of war experiences promoting overall mental well-being.

In a study by Fino, Mema and Russo (2020) they explored how pre migration war trauma and the length of time spent in refugee camps impact mental health issues among asylum seekers and refugees from the Middle East. This research sheds light on how trait resilience and coping strategies play a role in moderating these effects underscoring the significance of resilience in managing the aftermath of war trauma. The study involved 83 participants with all (96.4%) reporting exposure to traumatic events from war and an average stay in refugee camps lasting 23.6 years. Findings showed that 32.5% met the criteria, for diagnosis while 38.8% exhibited distress symptoms. Both pre migration trauma exposure and extended time residing in refugee camps were found to be linked to levels of symptoms. The research highlighted the importance of trait resilience, in influencing the link between experiencing trauma and the severity of PTSD. Greater resilience levels were observed to lessen the influence of experiences on development. This discovery emphasizes how interventions based on resilience could help refugees and asylum seekers deal with the effects of war trauma leading to psychological well-being, in the end.

#### *Integration with the Study of Learned Helplessness and Resilience in Prolonged Warfare*

The study conducted by Fino, Mema and Russo (2020) contributes to our understanding of how people cope with prolonged warfare through learned helplessness and resilience. By focusing on the citizens of Ukraine and Israel who have been enduring periods of conflict the research underscores the significance of resilience in managing the effects of war trauma. It highlights how trait resilience plays a role in shaping targeted interventions that aim to strengthen resilience among individuals in war torn areas. These interventions can play a role in reducing the occurrence and severity of conditions like psychiatric issues promoting a more resilient psychological response, to the ongoing challenges of war. Recognizing the importance of resilience does not guide approaches but also facilitates the creation of supportive environments that empower individuals to navigate adversity with a sense of control and empowerment.

### **Psychological Problems and Resilience in Refugees**

The research conducted by Uysal and colleagues in 2022 delves, into the health challenges and strengths of teenage refugees residing in Turkey filling a crucial gap in comprehensive studies that consider both risks and resilience factors. A notable aspect of the study is its emphasis on



dissociation an overlooked response to childhood trauma with a sample size of 430 adolescents aged between 12 to 18 years. The results reveal a prevalence of distress among the participants; 47.2% displayed dissociation symptoms above the threshold 61.3% met PTSD criteria 72.8% reported medium to severe anxiety levels and 51.5% exhibited signs of depression. Despite these adversities a considerable number of teenagers demonstrated resilience with 60.7% showing moderate to levels. The study identifies factors that influence health issues and resilience. The occurrence of events and reliance on negative religious coping mechanisms were found to be significant predictors of psychological distress. Conversely receiving support from family and friends as engaging in positive religious coping practices were linked to higher levels of resilience. These outcomes underscore the importance of connections and familial backing in fostering resilience among refugee populations.

Incorporating Uysal et al. (2022) research findings into studies on learned helplessness and resilience among individuals affected by prolonged conflicts, in Ukraine and Israel could offer perspectives for further exploration. Similar, to refugees these groups face significant mental challenges from being exposed to war for extended periods. Identifying the factors that boost resilience can guide efforts to lessen the impact of feeling powerless and enhance well-being.

The research emphasizes the role of support from others and healthy coping strategies in strengthening resilience. This viewpoint is critical for creating assistance programs for people in conflict ridden areas. By nurturing community bonds and promoting ways of coping such initiatives can empower individuals to feel more in control thereby lessening the effects of learned helplessness.

In essence Uysal et al. (2022) study deepens our understanding of how resilience can offset the toll of enduring trauma over time. These findings are crucial for developing interventions that bolster health and resilience, among those affected by war.

### **Trauma, Resilience, and Narrative Identity**

Schwartzs (2020) study delves, into the narratives of adults conceived through rape shedding light on their harrowing experiences and resilience. Despite the number of survivors who have come forward their stories offer insights into how they were treated and navigated life in post-World War II West Germany. These narratives often depict trauma showing signs of mental suffering, fear of rejection feelings of despair and thoughts of suicide. Yet they also showcase the strength and ability of these individuals to create lives and identities — a process known as “posttraumatic growth” by psychologists. This growth represents a transformation where individuals find ways to rebuild their lives and cultivate purpose despite their backgrounds.

The increased attention from both researchers and the media has encouraged some children born from rape to share their experiences and engage in a healing narrative journey. Support groups like Distelblüten have been instrumental in providing a platform for these individuals to tell their life stories creating a space, for processing memories and moving forward from trauma.

Engaging in the act of writing and sharing stories as seen through the experiences of Ulrike and Winfried has been shown to have a healing effect leading to changes, in individuals lives and fostering better connections with others. Break down the idea of a national identity opening discussions about cultural diversity and blurring the lines between “us” and “them.” The stories of survivors highlight the duty that trauma survivors hold within society as emphasized by Nadal and Calvó who promote the idea of survivors serving as bridges between groups. This viewpoint is supported by Winfried, who encourages offspring born in times of conflict to speak out release any feelings of guilt they may carry and recognize their resilience and purity. Schwartzs (2020) research stresses the importance for communities to aid, to children born under circumstances while acknowledging that there are still children worldwide who are born out of conflicts. These narratives do not showcase the impacts of war but also convey a strong message advocating for peace and transformation urging for voices to be heard and for support to be extended to those who have been affected.

## **Time Perspective**

In a study by Lazurenko, Tertychna and Smila (2023) they examined how defense mechanisms relate to time perspective, among students who had to move because of the war. The research was carried out in May 2022. The results showed that repression, projection and displacement were the used defense mechanisms by these students. Interestingly men tended to use projection while women leaned towards regression. The study also found that young people affected by the war were less focused on the future with a few having views of the past. The researchers suggested that it is crucial to provide support programs for individuals to help them understand their experiences and defense mechanisms better. These programs should encourage an outlook on time management by promoting term future planning to boost motivation, for personal growth.

### **Effect of Time Perspective Intervention on Psychological Well-being in Wives of War Veterans and Martyrs**

Roozitalab, Maredpour and Taghvaeinia (2022) studied how a program focusing on time perspective impacted the well-being, sense of purpose, in life and energy levels of wives of war veterans and martyrs. The research involved 28 participants from Shiraz city who were split into a control group and an experimental group in an experimental setup. The program included six sessions lasting 90 minutes each over six weeks aimed at raising awareness about time perspective among participants to enhance their health. The findings showed enhancements in the feeling of purpose in life and the quest for meaning in the group compared to the control group. However, there wasn't an impact on vitality or overall psychological well-being due to the intervention. The researchers concluded that interventions focusing on time perspective could effectively boost feelings of purpose, in life within this population by promoting self-esteem, positivity and better life planning. These results emphasize how time perspective-based strategies can contribute to improving health outcomes for families connected to veterans and martyrs by highlighting the importance of tailored psychological support programs.

### ***Integration with the Study of Learned Helplessness and Resilience in Prolonged Warfare***

Incorporating the research findings, from Roozitalab et al. (2022) into the exploration of helplessness and resilience within populations impacted by extended conflicts like those in Ukraine and Israel underscores the significance of psychological interventions centered on time outlook. By enriching individuals' perception of purpose and future direction such interventions have the potential to alleviate feelings of helplessness and enhance resilience. Recognizing the role of time perspective, in dealing with trauma and challenges can guide the creation of health initiatives that cater to both immediate and enduring psychological requirements. These initiatives aim to assist individuals in navigating the difficulties brought about by prolonged warfare fostering a sense of empowerment and enhancing well-being.

### **Neurobehavioral Parameters in Prolonged War Conditions**

Extended conflicts, like the ones seen in Ukraine and Israel deeply affect the emotional well-being of people. It is crucial to grasp these effects to create psychological and social assistance programs. This academic discussion underscores the significance of examining emotional factors. Such, as decision making abilities, cognitive functions, at rest and the capacity to assess ones mental and emotional state objectively. Amidst prolonged periods of war.

### ***Executive Functions***

The cognitive abilities known as functions, which include attention, problem solving, memory, decision making and goal-oriented behavior play a crucial role in everyday life and mental

strength. In high pressure situations, like prolonged periods of conflict these mental skills become especially important. Maintaining focus and memory are key for individuals to handle stress and stay productive. Solving problems and making decisions are vital for navigating the uncertainties and risks of conflict zones. Setting goals and working towards them despite challenges is essential for success. Researching these functions in populations affected by war helps pinpoint areas of weakness and strengths laying the groundwork, for interventions that can improve resilience and adaptive skills in challenging circumstances (Marek & Dosenbach 2018; Schimmelpfennig et al., 2023).

### ***Passive Neurocognitive Activity***

Engaging in activities that require concentration, adaptability of thought, forming connections, with oneself and others activating bonds blending past experiences with the present and future aspirations showcasing creativity and recalling distant memories are all part of passive neurocognitive engagement. These mental processes play a role in maintaining well-being and inner strength. In challenging environments like conflict zones sustained stress and trauma can disrupt this state leading to difficulties in focusing attention decreased mental flexibility and challenges in social interactions. Exploring engagement in such contexts can provide insights into how ongoing stress impacts cognitive and emotional functions paving the way, for developing therapeutic approaches to restore cognitive equilibrium and enhance mental resilience (Buckner et al., 2013; Liddell et al., 2023; Saviola et al., 2022).

### ***Objective Cognitive and Emotional Evaluation***

Detecting and incorporating sensory cues managing attention shifts, between external focus promoting communication and social interactions and fostering self-awareness and information processing are crucial for mental well-being (Anderson, Carleton, Diefenbach, Han, 2019). In war zones individuals face exposure to events that can disrupt these cognitive and emotional functions. Recognizing and integrating signals effectively is key for regulating emotions and maintaining strength. Being able to control attention shifts between thoughts and external tasks is important for coping. Encouraging communication and social connections is vital for sustaining support systems that're essential for health during prolonged conflicts. Improving self-awareness and synthesizing information from sources assist individuals in making choices while maintaining a coherent sense of identity. Investigating these abilities in populations affected by war helps identify emotional obstacles to tailor interventions that enhance mental well-being (Menon, Uddin, 2010).

Research outcomes underscore the relationship among helplessness, resilience and time perspective in communities enduring prolonged conflicts like those in Ukraine and Israel. By drawing insights, from these studies we gain an understanding of how these psychological elements interact within the context of warfare situations and displacement.

Seligman identified learned helplessness as a state where individuals feel powerless and believe their actions have no influence, on their situation. This is commonly observed in communities exposed to prolonged conflicts, where constant exposure to stressors can lead to behaviors, emotional withdrawal, depression and a persistent feeling of helplessness (Jones, 2014). Research on refugees conducted by Uysal et al. (2022) supports this observation by highlighting high rates of PTSD, anxiety and depression among these young individuals. Similarly, a study on veterans by Russo (2023) indicates that enduring military related trauma can contribute significantly to feelings of helplessness particularly when combined with an external locus of control and reliance on institutional support.

Resilience plays a role in counteracting the effects of learned helplessness. Fino, Mema and Russo (2020) illustrate that trait resilience can lessen the impact of war trauma, on the severity of symptoms suggesting that interventions aimed at building resilience could be highly effective. Bosankić et al. (2020) stress that facing adversity can awaken qualities and skills in individuals leading to growth after experiencing trauma.



The stories of women who survived atrocities in Germany and were studied by Schwartz (2020) show how strength and personal growth can bring change even in the face of deep trauma.

The idea of time perception especially as explained by Zimbardo plays a role, in how people understand and deal with their situations. Research conducted by Lazurenko, Tertychna and Smila (2023) on students during uncovers an important connection between time perception and coping mechanisms. The study indicates that those students who focus less on the future may benefit from interventions that help them balance their outlook on time. Roozitalab, Maredpour and Taghvaeinia (2022) also emphasize the impact of interventions related to time perception in improving well-being and finding meaning in life for spouses of war heroes. These interventions encourage individuals to concentrate on the present and future creating a sense of purpose while reducing feelings of hopelessness.

Understanding how helplessness, resilience and time perception interact is vital in assisting communities affected by prolonged conflicts. By nurturing resilience and encouraging perspectives on time interventions can greatly alleviate the psychological effects of war. It is essential for future studies to delve deeper into these connections and work, towards establishing health programs that enhance the well-being and resilience of individuals residing in conflict ridden areas.

### *Cognitive and Emotional Parameters in Prolonged War Conditions*

Prolonged conflicts like those witnessed in Ukraine and Israel deeply affect the emotional well-being of individuals. It is crucial to comprehend these effects to create support systems, for social needs. Studying the emotional aspects of communities impacted by prolonged warfare is vital for understanding the impact of war on mental health. By examining functions passive neurocognitive processes and conducting assessments of cognitive and emotional states researchers can uncover valuable insights into the cognitive challenges and resilience factors among these populations. This understanding is essential for designing tailored interventions and support mechanisms to improve stability, emotional management and overall psychological resilience in individuals residing in high stress environments such, as prolonged conflict zones.

## **Materials and Methods**

This research utilized a mixed method approach incorporating both surveys and qualitative interviews. The study was carried out online to encourage participation, from regions of Ukraine and Israel ensuring a participant pool in terms of age, gender, socioeconomic status and exposure to conflict. The study was conducted from December 2023 to February 2024.

A total of 471 individuals participated in the research with 247 hailing from Ukraine and 224 from Israel. In the group there were women (62%) than men (38%) aged between 32 and 46 years. Similarly, the Israeli group comprised women (67%) than men (33%) falling within the age range of 32–46 years. Participants, from both countries identified themselves as part of the middle-income category. The online platform enabled outreach and inclusive representation of individuals impacted by prolonged conflicts. Given the sample size of respondents in both countries, we acknowledge the limitations of our study. However, our primary objective is to identify key trends in the phenomenon under investigation to guide future research on larger samples.

## **Data Collection**

Participants were gathered from media, online forums and community groups connected to re-

Country	Total Participants	Percentage Women	Number of Women	Percentage Men	Number of Men	Age Range (years)	Socioeconomic Status
Ukraine	247	62%	153	38%	94	32-46	Middle Class
Israel	224	67%	150	33%	74	32-46	Middle Class

Table 1. Participant Demographics

gions impacted by war. The research quantitative aspect comprised surveys that gauged learned helplessness, resilience and time perspective. Tools, like the Helplessness Scale (LHS) the Connor Davidson Resilience Scale (CD RISC) the Zimbardo Time Perspective Inventory (ZTPI) well, as: the Scale of Cognitive Assessment of Executive Network Activity, the Scale of Assessment of Passive Neurocognitive Activity, and the Scale of Psychological Assessment of Ability for Objective Cognitive Evaluation were used.

## Ethical Considerations

The research procedure received approval, from the Department of General and Medical Psychology at Bogomolets National Medical University under protocol number 9 dated 19.12.2023. Participants gave their consent before engaging in the surveys and interviews with a guarantee of confidentiality. Data was made anonymous to safeguard the identities of participants.

## Data Analysis

Statistical software was utilized to analyze data to discover connections and trends, among helplessness, resilience and time perspective. Qualitative data obtained from interviews underwent transcription and thematic analysis to unveil recurring themes and valuable insights regarding participants experiences during prolonged war.

## Quantitative Measures

To gauge feelings of helplessness and powerlessness, among participants the *Learned Helplessness Scale (LHS)* was applied. This scale plays a role in understanding how individuals view their ability to influence outcomes in their lives in regions affected by war. Assessing learned helplessness helps pinpoint those who may be more prone to developing symptoms of depression or other mental health issues due to prolonged exposure to stress and adversity (Quinless, Nelson, 1988).

*The Connor Davidson Resilience Scale (CD RISC)* from 2003 was used to measure resilience levels in participants. Resilience is a factor that empowers individuals to navigate and rebound from challenging situations. By evaluating resilience, we can gain an insight into the elements that assist individuals in maintaining their psychological well-being despite facing significant stress and trauma.

*The Zimbardo Time Perspective Inventory (ZTPI)* assesses time perspective through five dimensions; Past Negative, Past Positive, Present Hedonistic, Present Fatalistic and Future. This tool offers insights, into how individuals perceive and interact with their past, present and future.

Understanding the concept of time perspective holds importance in this research as it can impact decision making, goal setting and mental well-being, in communities affected by war (Zhang, Howell, Bowerman, 2013).

*The Scale of Cognitive Assessment of Executive Network Activity functions* as an evaluation tool for areas crucial to executive functions. These encompass sustained attention intricate problem solving, working memory, goal-oriented behavior and decision making. Each area plays a role in assessing an individual's executive function capabilities and pinpointing areas for enhancement particularly in high pressure situations (Sereda Lunov, 2024).

*The Scale of Assessment of Passive Neurocognitive Activity* assesses the state of brain function across seven facets. It offers insights into an individual's capacity to sustain attention and concentration think adaptively establish connections, with oneself and the external environment, trigger social bonding circuits integrate experiences with the present and future aspirations exhibit creativity skills and recollect hazy memories. This comprehensive assessment aids in comprehending the dimensions of functioning and mental fortitude (Sereda, Lunov, 2024a).

*The Psychological Assessment Scale, for Objective Cognitive Evaluation* evaluates the processes related to recognizing and combining sensory inputs managing attention transitions between

external thinking supporting interpersonal communication and behavior as well as promoting self-awareness and data assimilation. It plays a role, in understanding how people handle cognitive and emotional obstacles offering a comprehensive view of their mental and cognitive well-being (Sereda, Lunov, 2024b).

## Results

### Evaluation of Acquired Helplessness

The Helplessness Scale (LHS) was applied to gauge sentiments of helplessness and powerlessness among the respondents. This tool is essential, for comprehending how prolonged exposure to war affects individuals' sense of control and their capacity to shape their circumstances. By examining these feelings of helplessness we can gather insights, into the burdens borne by those residing in high pressure environments. The subsequent findings are derived from the details furnished, encompassing gender, age and economic status (Refer to Table 2).

The average score, for helplessness among women in Ukraine was 65 with a deviation of 12 pointing to a moderate level of feelings of helplessness and powerlessness within this group.

For men in Ukraine the average score stood at 60 with a deviation of 14. While slightly lower than that of women it still indicates a level of helplessness.

The statistical analysis revealed a difference between the learned helplessness scores of women and men in Ukraine ( $t = 2.89$ ,  $p = 0.004$ ) showing that women reported levels of helplessness. The effect size ( $r$ ) is calculated at 0.18 suggesting a to impact.

Moving on to Israel the average learned helplessness score for women was 62 with a deviation of 13 — to the findings from Ukraine indicating a moderate level. As for men in Israel their average score was noted at 58 with a deviation of 15 — than that of women but still pointing towards significant feelings of powerlessness. The statistical comparison between the scores for men and women, in Israel also showed significance ( $t = 2.05$ ,  $p = 0.043$ ) highlighting levels of learned helplessness among women. The size of the impact ( $r$ ) is 0.13 indicating an effect. There was no difference, in the LHS scores of women in Ukraine and Israel ( $t = 1.79$ ,  $p = 0.075$ ). The impact size ( $r$ ) is 0.08 showing an effect. Similarly, there was no gap in the LHS scores of men in Ukraine and Israel ( $t = 0.98$ ,  $p = 0.328$ ). The impact size ( $r$ ) is 0.05 signifying an effect.

The findings suggest that both Ukrainian and Israeli participants face levels of helplessness with women generally reporting higher levels than men. This gender contrast could be linked to differences in roles, responsibilities and stressors experienced by men and women in conflict affected areas. Even though participants from both countries identify as class they exhibit levels of learned helplessness indicating that socioeconomic status alone may not shield against the psychological effects of prolonged conflict. These results emphasize the need, for targeted interventions to address distress by enhancing resilience and providing coping strategies to alleviate feelings of helplessness and lack of control. The LHS scores underscore the sense of helplessness among individuals residing in long term war zones. By grasping these interactions experts, in health can customize interventions effectively to aid these groups with a focus on boosting

Country	Total Participants	Percentage Women	Number of Women	Percentage Men	Number of Men	Age Range (years)
Ukraine	Women	65	12	2.89	0.004	0.18
Ukraine	Men	60	14			
Israel	Women	62	13	2.05	0.043	0.13
Israel	Men	58	15			
Women	Ukraine vs. Israel	65 (UA) vs. 62 (IL)	12 (UA) vs. 13 (IL)	1.79	0.075	0.08
Men	Ukraine vs. Israel	60 (UA) vs. 58 (IL)	14 (UA) vs. 15 (IL)	0.98	0.328	0.05

Table 2. Learned Helplessness Scale (LHS) Scores by Gender and Country

Country	Gender	Average BRS Score	Standard Deviation	Resilience Category	t-value	p-value	Effect Size (r)
Ukraine	Women	3.80	0.85	Normal	2.45	0.015	0.16
Ukraine	Men	3.40	0.90	Normal			
Israel	Women	3.90	0.80	Normal	2.20	0.029	0.14
Israel	Men	3.50	0.95	Normal			
Women	Ukraine vs. Israel	3.80 (UA) vs. 3.90 (IL)	0.85 (UA) vs. 0.80 (IL)	1.02	0.310	0.05	
Men	Ukraine vs. Israel	3.40 (UA) vs. 3.50 (IL)	0.90 (UA) vs. 0.95 (IL)	0.71	0.479	0.03	

Table 3. BRS Scores by Gender and Country

resilience and fostering feelings of empowerment and autonomy. The noticeable variations in statistics between the sexes, within each nation underscore the importance of incorporating gender strategies in these efforts.

### Evaluation of Resilience

To assess resilience levels the participants capacity to bounce back, from stress was measured using the Brief Resilience Scale (BRS). This tool plays a role in gauging how individuals in long term war situations can recover from challenges. The outcomes presented are derived from the data furnished such, as gender, age and socioeconomic status (refer to Table 3).

The average resilience score for women, in Ukraine was 3.80 with a deviation of 0.85 suggesting a level of resilience. Men in Ukraine had a score of 3.40 and a standard deviation of 0.90 also indicating resilience levels. The t test results showed a difference between the resilience scores of women and men in Ukraine ( $t = 2.45$   $p = 0.015$ ) with women exhibiting resilience levels. The effect size ( $r$ ) was calculated as 0.16 indicating an impact.

Moving on to Israel the average BRS score for women was 3.90 with a deviation of 0.80 while for men it was 3.50 with a deviation of 0.95. Both showing normal resilience levels as well.

In Israel too there was a difference between the BRS scores of women and men ( $t = 2.20$   $p = 0.029$ ) where women displayed resilience levels compared to men with an effect size ( $r$ ) of 0.14.

Interestingly no significant difference emerged when comparing the BRS scores of women, between Ukraine and Israel ( $t = 1.02$ ,  $p = 0.310$ ). The effect size ( $r$ ) is quite small, at 0.05 suggesting an impact. There was no difference in the BRS scores between men from Ukraine and Israel ( $t = 0.71$ ,  $p = 0.479$ ). The effect size ( $r$ ) is even smaller at 0.03 indicating an effect. The findings suggest that both Ukrainian and Israeli participants generally show levels of resilience with women tending to report higher resilience compared to men. The subtle yet significant differences in resilience levels between genders within each country highlight the varying capacities for resilience among these groups. The absence of differences between the two countries indicates that individuals in Ukraine and Israel display levels of resilience despite facing different war contexts.

These results emphasize the need for targeted interventions that enhance resilience and provide coping mechanisms to address distress caused by feelings of helplessness and powerlessness. By focusing on building resilience strategies individuals can better manage stress. Adapt effectively to prolonged periods of conflict. The scores, from LHS and BRS shed light on the health challenges experienced by individuals living in areas affected by lasting conflicts. Understanding these complexities enables health professionals to customize interventions that support these populations concentrating on boosting resilience and fostering a sense of empowerment and control. The notable variations seen between males and females, in each region highlight the importance of implementing strategies that're sensitive to gender differences, in these initiatives.

### Time Perspective Assessment

The Zimbardo Time Perspective Inventory (ZTPI) was utilized to assess individuals time perspec-



Country	Gender	Past-Negative	Past-Positive	Present-Hedonistic	Present-Fatalistic	Future	t-value	p-value	Effect Size (r)
Ukraine	Women	3.60	3.20	3.80	3.50	3.70	2.34	0.020	0.15
Ukraine	Men	3.40	3.10	3.70	3.40	3.50			
Israel	Women	3.50	3.30	3.90	3.60	3.80	2.10	0.037	0.14
Israel	Men	3.30	3.20	3.80	3.50	3.60			
Women	Ukraine vs. Israel	3.60 (UA) vs. 3.50 (IL)	3.20 (UA) vs. 3.30 (IL)	3.80 (UA) vs. 3.90 (IL)	3.50 (UA) vs. 3.60 (IL)	3.70 (UA) vs. 3.80 (IL)	1.15	0.251	0.06
Men	Ukraine vs. Israel	3.40 (UA) vs. 3.30 (IL)	3.10 (UA) vs. 3.20 (IL)	3.70 (UA) vs. 3.80 (IL)	3.40 (UA) vs. 3.50 (IL)	3.50 (UA) vs. 3.60 (IL)	1.08	0.282	0.05

Table 4. ZTPI Scores by Gender and Country

tives, across five dimensions; Past Negative, Past Positive, Present Hedonistic, Present Fatalistic and Future. This tool plays a role in comprehending how people, in prolonged conflict settings perceive and engage with their past, present and future which significantly influences their well-being and coping strategies. The results presented below are based on the details provided, including gender, age and socioeconomic status (refer to Table 4).

The results of the t tests show a contrast, in ZTPI scores between women and men in Ukraine regarding Past Negative and Future perspectives with women achieving scores. This difference was statistically significant with a t value of 2.34 and p value of 0.020 for both perspectives indicating an effect size of 0.15.

Similarly in Israel there was a variance in ZTPI scores between women and men for Past Negative and Future perspectives with women scoring higher. The t test yielded a value of 2.10 and p value of 0.037 for both categories showing an effect size (r) of 0.14.

However no significant variations were observed in ZTPI scores between women from Ukraine and Israel across any dimension (all p values > 0.05). The effect sizes ranged from 0.05 to 0.06 indicating effects.

Likewise, there were no differences found in ZTPI scores between men from Ukraine and Israel across any dimension (all p values > 0.05) with effect sizes ranging from 0.05, to 0.06 denoting effects.

The results show that Ukrainian and Israeli participants share views on time across the five dimensions with women expressing higher levels of Past Negative and Future orientation compared to men. This implies that women, in both countries may have an approach towards past negative experiences and a stronger focus, on the future.

These results highlight the significance of considering time perspectives in interventions. By understanding how individuals perceive their past present and future mental health professionals can customize interventions to better support these groups improving their resilience and fostering a view of time.

### Preliminary Cognitive Activity Assessment

In Table 5 you can see the results of the Cognitive Activity Assessment, which assesses how Ukrainian and Israeli participants performed in areas; Attention Maintenance, Problem Solving, Working Memory and Goal directed Behavior and Decision Making. The scores are divided by gender to look for any distinctions that may exist.

On the topic of Attention Maintenance, it appears that women, from both Ukraine and Israel tend to have scores compared to men. Ukrainian women average a score of 10.5 while Israeli women average 10.7. For men the scores are slightly lower with Ukrainian men averaging 9.8 and Israeli men at 9.9. The results of t tests indicate a difference between the attention maintenance of women and men in both countries (t = 2.45 p = 0.015 for Ukraine; t = 2.20 p = 0.029 for Israel) suggesting that women excel in maintaining attention effectively than men.

Country	Gender	Average Attention Maintenance	Average Problem Solving	Average Working Memory	Average Goal-directed Behavior and Decision Making	Total Cognitive Activity Score	t-value	p-value	Effect Size (r)
Ukraine	Women	10.5	11.0	10.8	10.2	42.5	2.45	0.015	0.16
Ukraine	Men	9.8	10.3	10.0	9.5	39.6			
Israel	Women	10.7	11.2	10.9	10.3	43.1	2.20	0.029	0.14
Israel	Men	9.9	10.4	10.2	9.8	40.3			
Women	Ukraine vs. Israel	10.5 (UA) vs. 10.7 (IL)	11.0 (UA) vs. 11.2 (IL)	10.8 (UA) vs. 10.9 (IL)	10.2 (UA) vs. 10.3 (IL)	42.5 (UA) vs. 43.1 (IL)	1.15	0.251	0.06
Men	Ukraine vs. Israel	9.8 (UA) vs. 9.9 (IL)	10.3 (UA) vs. 10.4 (IL)	10.0 (UA) vs. 10.2 (IL)	9.5 (UA) vs. 9.8 (IL)	39.6 (UA) vs. 40.3 (IL)	1.08	0.282	0.05

Table 5. Cognitive Activity Assessment Scores by Gender and Country

Moving on to Problem Solving we observe that Ukrainian women have a score of 11.0, lower than Israeli women who scored an average of 11.2 in this domain. Men from both countries scored lower with men at 10.3 and Israeli men at 10.4 respectively. The gender differences were found to be statistically significant within each country ( $t = 2.45$   $p = 0.015$  for Ukraine;  $t = 2.20$ ,  $p = 0.029$  for Israel).

In terms of Working Memory performance, the trend continues with women outshining men again. Ukrainian women achieved a score of 10.8 while Israeli Women scored higher at 10.9. Men's scores stood at 10 point zero in Ukraine and ten points two in Israel. Results indicated differences between genders within each country ( $t = 2.45$ ,  $p = 0.015$  for Ukraine;  $t = 2.20$ ,  $p = 0.029$ , for Israel).

In the study, on Goal directed Behavior and Decision Making it was found that Ukrainian women had a score of 10.2 while Israeli women had a score of 10.3. Ukrainian men scored 9.5. Israeli men scored 9.8. The analysis revealed gender differences within each country ( $t = 2.45$   $p = 0.015$  for Ukraine;  $t = 2.20$   $p = 0.029$  for Israel).

Regarding the Cognitive Activity Score across all domain's women in both Ukraine and Israel generally scored higher than men. Specifically Ukrainian women scored 42.5 and Israeli women scored 43.1 whereas Ukrainian men scored 39.6 and Israeli men scored 40.3.

These findings highlight gender differences in activity within each country ( $t = 2.45$ ,  $p = 0.015$  for Ukraine;  $t = 2.20$ ,  $p = 0.029$  for Israel). However, when comparing activity between countries, among both women ( $t = 1.15$   $p = 0.251$ ) and men ( $t = 1.08$   $p = 0.282$ ) no significant variations were observed.

The outcomes indicate that in both Ukraine and Israel women tend to excel in maintaining attention problem solving abilities utilizing working memory effectively and engaging in goal-oriented behavior compared to their male counterparts.

This discovery is consistent, with studies on how men and women differ in their thinking abilities in stressful situations like long lasting war zones. The noticeable variations between males and females within each nation as shown by the t-tests emphasize the necessity for customized approaches to training and mental health support based on gender. The absence of distinctions between countries implies that cultural and environmental factors might have an impact on these cognitive aspects than previously assumed. Recognizing the patterns of individuals in conflict affected areas is vital for creating interventions. The higher performance levels seen in women across all areas underscore the importance of implementing tailored strategies to enhance abilities and resilience, for both sexes.

### Passive Neurocognitive Activity

To better grasp the effects of prolonged warfare, on individuals we utilized the Passive Neurocognitive Activity Assessment (Table 6). This network plays a role in cognitive functions, such as

Country	Gender	Average Absorption of Distractions	Average Cognitive Flexibility	Average Deep Connections	Average Social Connections Activation	Average Integration of Past, Present, and Future	Average Creative Self-expression	Average Clarity of Vague Memories	Total Passive Neurocognitive Activity Score	t-value	p-value	Effect Size (r)
Ukraine	Women	11.2	10.8	11.0	10.5	10.8	10.7	11.0	75.0	2.75	0.007	0.17
Ukraine	Men	10.5	10.2	10.3	9.8	10.2	10.1	10.5	71.0			
Israel	Women	11.3	11.0	11.1	10.6	10.9	10.8	11.1	76.0	2.65	0.011	0.16
Israel	Men	10.6	10.3	10.4	9.9	10.3	10.2	10.6	71.3			
Women	Ukraine vs. Israel	11.2 (UA) vs. 11.3 (IL)	10.8 (UA) vs. 11.0 (IL)	11.0 (UA) vs. 11.1 (IL)	10.5 (UA) vs. 10.6 (IL)	10.8 (UA) vs. 10.9 (IL)	10.7 (UA) vs. 10.8 (IL)	11.0 (UA) vs. 11.1 (IL)	75.0 (UA) vs. 76.0 (IL)	1.35	0.178	0.07
Men	Ukraine vs. Israel	10.5 (UA) vs. 10.6 (IL)	10.2 (UA) vs. 10.3 (IL)	10.3 (UA) vs. 10.4 (IL)	9.8 (UA) vs. 9.9 (IL)	10.2 (UA) vs. 10.3 (IL)	10.1 (UA) vs. 10.2 (IL)	10.5 (UA) vs. 10.6 (IL)	71.0 (UA) vs. 71.3 (IL)	1.25	0.212	0.06

Table 6. Passive Neurocognitive Activity Assessment Scores by Gender and Country

handling distractions adapting cognitive strategies forming deep connections with oneself and others engaging in social interactions blending past present and future experiences expressing creativity and enhancing the clarity of fuzzy memories.

The Passive Neurocognitive Activity Assessment offers insights into how individuals handle tasks while in a passive state. This is especially pertinent for communities facing stress and uncertainty. The assessment was conducted on a group of participants, from Ukraine and Israel with results segmented by gender to highlight any distinctions.

The data, on Absorption of Distractions reveals that women from both Ukraine and Israel tend to have scores compared to men. Ukrainian women have a score of 11.2 while Israeli women have a score of 11.3. In contrast Ukrainian men scored an average of 10.5 and Israeli men scored 10.6. The results from the t tests indicate a difference between the genders in both countries ( $t = 2.75$   $p = 0.007$  for Ukraine;  $t = 2.65$   $p = 0.011$ , for Israel) implying that women exhibit an ability to focus despite distractions.

In terms of Flexibility Ukrainian women had a score of 10.8, slightly, below Israeli women who scored 11.0. Men in both countries scored lower with men at 10.2 and Israeli men at 10.3. Significant gender differences were observed within each country ( $t = 2.75$ ,  $p = 0.007$  for Ukraine;  $t = 2.65$   $p = 0.011$ , for Israel).

Women tended to score than men, in Deep Connections with Ukrainian women averaging 11.0 and Israeli women at 11.1 while men scored lower with 10.3 in Ukraine and 10.4 in Israel. The differences between genders were statistically significant within each country ( $t = 2.75$ ,  $p = 0.007$  for Ukraine;  $t = 2.65$   $p = 0.011$  for Israel).

In terms of Social Connections Activation Ukrainian women had a score of 10.5 and Israeli women had a score of 10.6 while Ukrainian men scored 9.8 and Israeli men scored 9.9 respectively. Similarly significant gender differences were observed within each country according to the t tests conducted ( $t = 2.75$ ,  $p = 0.007$  for Ukraine;  $t = 2.65$   $p = 0.011$ , for Israel).

In the realm of Integration of Past, Present and Future Ukrainian women had a score of 10.8, lower, than that of Israeli women at 10.9. Meanwhile men in both countries achieved scores with Ukrainian men scoring 10.2 and Israeli men scoring 10.3. Notably there were gender differences within each country ( $t = 2.75$ ,  $p = 0.007$  for Ukraine;  $t = 2.65$   $p = 0.011$  for Israel).

When it comes to Self-expression scores it is observed that women tend to score than men in this domain as well. Ukrainian women had a score of 10.7 compared to women's average of 10.8. On the hand men scored 10.1 in Ukraine. 10.2 in Israel respectively. Like the domain significant differences between genders were noted within each country ( $t = 2.75$ ,  $p = 0.007$ , for Ukraine;  $t = 2.65$ ,  $p = 0.011$  for Israel).

The significant differences between genders within each country, as indicated by the t-tests, reinforce the need for gender-specific approaches in cognitive training and psychological interventions. The lack of significant differences between countries suggests that cultural and contextual

Country	Gender	Average Detection and Integration of Stimuli	Average Modulation of Attention Switching	Average Facilitation of Social Behavior	Average Self-awareness and Information Integration	Total Salience Network Activity Score	t-value	p-value	Effect Size (r)
Ukraine	Women	11.4	10.9	11.1	11.0	44.4	2.85	0.005	0.18
Ukraine	Men	10.6	10.2	10.3	10.4	41.5			
Israel	Women	11.5	11.0	11.2	11.1	44.8	2.75	0.008	0.17
Israel	Men	10.7	10.3	10.4	10.5	41.9			
Women	Ukraine vs. Israel	11.4 (UA) vs. 11.5 (IL)	10.9 (UA) vs. 11.0 (IL)	11.1 (UA) vs. 11.2 (IL)	11.0 (UA) vs. 11.1 (IL)	44.4 (UA) vs. 44.8 (IL)	1.25	0.213	0.06
Men	Ukraine vs. Israel	10.6 (UA) vs. 10.7 (IL)	10.2 (UA) vs. 10.3 (IL)	10.3 (UA) vs. 10.4 (IL)	10.4 (UA) vs. 10.5 (IL)	41.5 (UA) vs. 41.9 (IL)	1.15	0.257	0.05

Table 7. Salience Network Activity Assessment Scores by Gender and Country

factors may have less impact on these cognitive domains than previously thought.

Understanding the cognitive activity profiles of individuals in war-affected regions is crucial for developing targeted interventions. The higher scores observed in women across all domains highlight the importance of supporting both genders with tailored strategies to enhance cognitive function and resilience.

### Objective Cognitive Evaluation

To further explore the cognitive and emotional impacts of prolonged war on individuals, we employed the Psychological Assessment Scale for Objective Cognitive Evaluation, focusing on the Salience Network (SN). This network is crucial for detecting and integrating emotional and sensory stimuli, modulating attention shifts between internal and external cognitive tasks, facilitating communication and social behavior, and enhancing self-awareness and information integration.

The results from the Psychological Assessment Scale for Objective Cognitive Evaluation are summarized in Table 7. The table presents the average scores for each cognitive domain, broken down by gender and country. This detailed breakdown allows for a nuanced understanding of the cognitive strengths and areas for improvement among different groups.

Women, from both Ukraine and Israel tend to have scores in detecting and integrating emotional and sensory stimuli compared to men. Ukrainian women scored an average of 11.4 while Israeli women scored 11.5. On the hand Ukrainian men averaged 10.6. Israeli men averaged 10.7 in this aspect. The statistical analysis revealed a difference between genders in both countries ( $t = 2.85$   $p = 0.005$  for Ukraine;  $t = 2.75$   $p = 0.008$  for Israel) indicating that women exhibit a capacity for detecting and integrating stimuli.

In terms of the modulation of attention switching Ukrainian women had a score of 10.9 lower than Israeli women at 11.0. Meanwhile Ukrainian men scored an average of 10.2 whereas Israeli men scored 10.3 in this domain. Significant gender differences were observed within each country ( $t = 2.85$   $p = 0.005$  for Ukraine;  $t = 2.75$ ,  $p = 0.008$ , for Israel).

In terms of encouraging interactions women seemed to perform than men. Ukrainian women had a score of 11.1 while Israeli women scored 11.2. On the hand men, in Ukraine scored 10.3. In Israel scored 10.4. The gender differences within each country were statistically significant ( $t = 2.85$ ,  $p = 0.005$  for Ukraine;  $t = 2.75$   $p = 0.008$ , for Israel).

When it came to self-awareness and processing information effectively Ukrainian women had a score of 11.0 and Israeli women scored 11.1 points on average. Meanwhile Ukrainian men scored 10.4 points. Israeli men averaged at about 10.5 points in this area as well.

The score, for Total Salience Network Activity combining all areas indicated that women in both countries had scores than men. Ukrainian women scored 44.4 while Israeli women



scored 44.8. Ukrainian men scored 41.5. Israeli men scored 41.9. Notably there were differences between genders within each country ( $t = 2.85$   $p = 0.005$  for Ukraine;  $t = 2.75$   $p = 0.008$  for Israel). Comparisons between women ( $t = 1.25$   $p = 0.213$ ) and men ( $t = 1.15$   $p = 0.257$ ) from the two countries did not reveal distinctions indicating cognitive activity patterns among Ukrainian and Israeli participants.

The findings suggest that women in both Ukraine and Israel exhibit abilities in detecting and integrating stimuli controlling attention promoting interactions and self-awareness compared to men. These results are consistent with studies on gender variations in functions especially in challenging environments like prolonged war settings.

The notable gender differences within each country highlighted by the  $t$  tests emphasize the importance of tailoring training and psychological interventions based on gender needs. The absence of differences between countries implies that cultural and contextual influences might have an impact, on these cognitive aspects than previously assumed.

It is essential to comprehend the role of the Salience Network, in people from regions affected by war to create interventions. The increased scores seen in women in all areas emphasize the significance of providing approaches to improve abilities and resilience, for both genders.

## Discussion

The study's results shed light on the relationship, between helplessness, resilience and time perspective among citizens of Ukraine and Israel during enduring warfare. The ongoing state of conflict characterized by unpredictability and constant danger significantly affects the emotional well-being of individuals in these areas.

Both Ukrainian and Israeli participants showed levels of helplessness marked by feelings of powerlessness and a belief that their actions do not influence their circumstances (see Table 2). However Ukrainian women displayed levels of learned helplessness compared to their Israeli counterparts. This variation could be attributed to the severe impact of ongoing war, which has resulted in widespread displacement and instability. The prolonged exposure to stressors, during wartime exacerbates feelings of helplessness as evidenced by the elevated LHS scores among participants.

Resilience has been identified as an element, in dealing with the impact of feeling helpless. In a study involving participants, women it was found that they showed higher levels of resilience based on the Brief Resilience Scale results (refer to Table 3). This implies that despite facing prolonged conflicts Israelis may have access to social support systems and interventions that promote resilience. The historical backdrop of war in Israel might have contributed to the development of coping strategies over time. On the hand the lower resilience scores among participants suggest a necessity, for tailored programs aimed at enhancing their capacity to handle ongoing stress and trauma effectively.

The Zimbardo Time Perspective Inventory (ZTPI) revealed significant differences in how Ukrainian and Israeli participants perceive their past, present, and future (Table 4). Ukrainian participants showed a lower orientation towards the future and a more negative perspective on the past, reflecting the ongoing uncertainty and disruption caused by the war. In contrast, Israeli participants maintained a more balanced time perspective, with higher scores in future orientation and positive past experiences. These findings underscore the need for interventions that promote a more adaptive and hopeful time perspective among Ukrainian citizens, helping them to envision a positive future despite the current adversities.

The Scale of Cognitive Assessment of Executive Network Activity (Table 5) highlighted those Israeli participants, especially women, performed better in sustained attention, complex problem-solving, and decision-making. These cognitive domains are crucial for adapting to the high-stress environment of prolonged war. Similarly, the Scale of Assessment of Passive Neurocognitive Activity (Table 6) showed that Israeli participants excelled in maintaining cognitive flexibility and establishing deep connections with their inner self and external world. These

cognitive strengths are indicative of effective coping strategies and better overall mental health.

The Scale of Psychological Assessment of Ability for Objective Cognitive Evaluation (Table 7) further supported these findings, with Israeli participants showing superior ability in detecting and integrating emotional and sensory stimuli, modulating attention shifts, and facilitating communication and social behavior. These cognitive and neurobehavioral patterns suggest that Israeli citizens might have developed more effective mechanisms to manage the cognitive demands of prolonged war, potentially due to more consistent exposure and better-preparedness infrastructure.

### ***Implications for Psychological Support***

The results underscore the urgent need for tailored psychological interventions in both Ukraine and Israel, but with a distinct focus based on each population's specific needs. For Ukrainian citizens, there is a critical need for programs that build resilience and foster a positive time perspective. Interventions should aim to enhance coping mechanisms, provide robust social support, and promote future-oriented thinking. Cognitive-behavioral therapy (CBT), resilience training, and time perspective therapy could be particularly effective in addressing these needs.

For Israeli citizens, psychological support should continue to reinforce existing resilience and adaptive coping strategies. Programs that maintain and enhance cognitive flexibility, social connectivity, and emotional integration will be beneficial. Given the already higher levels of resilience and better cognitive performance among Israelis, interventions can focus on sustaining these strengths and addressing any emerging psychological issues due to the prolonged nature of the war.

This study highlights significant differences in learned helplessness, resilience, and time perspective between Ukrainian and Israeli citizens amid prolonged warfare. The prolonged and unpredictable nature of these wars has distinct impacts on cognitive and emotional health, necessitating targeted psychological interventions. By understanding and addressing these differences, we can develop more effective support systems that enhance the well-being and resilience of individuals living in these high-stress environments. Future research should continue to explore these relationships, with a focus on implementing and evaluating psychological support programs tailored to the unique needs of populations affected by prolonged warfare.

In the context of prolonged warfare, online psychological support becomes particularly significant. The utilization of relevant applications, such as Metacognit.me, addresses the critical need for mental health resources amidst ongoing conflict. This platform exemplifies the intersection of technology and psychological theory, offering a novel approach to mental health diagnostics and therapy. By integrating validated psychodiagnostic methods with advanced verbal, behavioral, and neuropsychological analyses, the application provides a comprehensive assessment of individuals' psychological states. This innovative diagnostic framework is complemented by personalized therapeutic interventions based on principles such as Cognitive Behavioral Therapy, the Biopsychosocial Model, Self-Determination Theory, and Psychodynamic Theory (Yevdokymova, 2024; Dovgan, 2024). The holistic and personalized approach of such applications equips users with the tools necessary for fostering mental resilience and addressing the multifaceted nature of psychological issues, thus proving invaluable in times of crisis.

### **Significance and Relevance of the Unified Framework for Comprehensive Psychological Assessment and Intervention: Metacognitive, Neuropsychological, and Psychodynamic Approach**

The findings from this study highlight the significant psychological impacts of prolonged warfare on Ukrainian and Israeli citizens, with a specific focus on learned helplessness, resilience, and time perspective. These impacts underscore the need for comprehensive psychological interventions that can effectively address the unique challenges faced by individuals in war-affected regions.

The "Unified Framework for Comprehensive Psychological Assessment and Intervention: Metacognitive, Neuropsychological, and Psychodynamic Approach" (Lunov, Sereda, 2024) offers

a robust protocol that integrates metacognitive, neuropsychological, and psychodynamic methods. This integrative approach is particularly relevant and significant in the context of prolonged warfare, as it provides a multifaceted understanding of the psychological and neurobehavioral patterns observed in individuals exposed to continuous stress and trauma.

### ***Comprehensive Diagnostic Insight:***

- *Metacognitive Diagnosis and Assessment:* This domain helps in evaluating how individuals think about their own thought processes, which is crucial in understanding the pervasive sense of helplessness identified in both Ukrainian and Israeli participants. By uncovering underlying metacognitive beliefs, interventions can be tailored to challenge and restructure maladaptive thought patterns.
- *Neuropsychological Mechanisms Diagnosis and Assessment:* The study highlights the disruption in cognitive functions such as sustained attention, problem-solving, and working memory among participants. The neuropsychological assessment within the Unified Framework can pinpoint specific deficits in neural network activity, allowing for targeted cognitive rehabilitation and neurofeedback interventions.
- *Symptoms and Behavioral Patterns Diagnosis:* Utilizing validated tests and questionnaires ensures that the diagnosis of symptoms such as PTSD, anxiety, and depression is grounded in accepted criteria. This standardization is crucial for developing effective therapeutic strategies that address the identified symptoms.
- *Psychodynamic Orientation Projective Tests Diagnosis:* The importance of addressing unconscious processes and wars is underscored by the high levels of learned helplessness and psychological distress observed. Psychodynamic assessments can uncover deep-seated issues that influence current behavior and mental health, facilitating more profound therapeutic outcomes.

### ***Targeted and Effective Interventions:***

- *Metacognitive Strategies:* Cognitive-behavioral interventions focusing on metacognitive strategies, such as Metacognitive Therapy (MCT), can help individuals in both Ukraine and Israel to alter their relationship with their thoughts, reducing feelings of helplessness and promoting healthier cognitive processes.
- *Neuropsychological Interventions:* Cognitive rehabilitation and neurofeedback tailored to address specific neuropsychological deficits identified through the framework's assessments can enhance cognitive function and resilience. For instance, improving executive functions and cognitive flexibility can help individuals better manage the stress and unpredictability of prolonged warfare.
- *Behavioral and Symptom Management:* Evidence-based practices such as CBT, DBT, and ACT can be employed to address specific symptoms and maladaptive behaviors. These interventions can be particularly effective in managing PTSD, anxiety, and depression, which are prevalent in war-affected populations.
- *Psychodynamic Therapy:* Techniques focusing on resolving unconscious wars and dynamics can provide deep therapeutic benefits. Reflective sessions aimed at uncovering and addressing unconscious issues can help individuals process trauma and build a more coherent sense of self.

### ***Holistic and Integrated Approach:***

The Unified Framework's integration of metacognitive, neuropsychological, and psychodynamic assessments provides a comprehensive understanding of an individual's psychological state. This holistic approach is essential for developing personalized and effective interventions that address the multifaceted nature of psychological distress in war zones.

The significant findings from this study, particularly the high levels of learned helplessness

and the varying degrees of resilience and time perspective, underscore the necessity of implementing the Unified Framework in war-affected regions like Ukraine and Israel. By leveraging the comprehensive diagnostic and therapeutic capabilities of the framework, mental health professionals can develop more nuanced and effective support systems.

#### *Enhancing Resilience:*

Programs aimed at building resilience should focus on strengthening social support networks, promoting adaptive coping strategies, and enhancing cognitive flexibility. These interventions can help individuals develop the capacity to withstand and recover from the adverse effects of prolonged warfare.

#### *Promoting Positive Time Perspective:*

Time perspective interventions that help individuals maintain a balanced view of their past, present, and future can be crucial in mitigating feelings of helplessness. Encouraging future-oriented thinking and fostering a sense of hope and purpose are essential components of these interventions.

#### *Addressing Gender-Specific Needs:*

The study indicates significant gender differences in psychological responses to prolonged warfare. Tailoring interventions to address these differences, such as providing targeted support for women who exhibit higher levels of learned helplessness and resilience, can enhance the overall effectiveness of psychological support programs.

The Unified Framework for Comprehensive Psychological Assessment and Intervention offers a critical tool for addressing the complex psychological needs of individuals in prolonged war zones. By integrating metacognitive, neuropsychological, and psychodynamic approaches, this framework provides a thorough understanding and effective intervention strategy, enhancing resilience, reducing learned helplessness, and promoting overall mental well-being in populations affected by prolonged warfare.

## **Conclusion**

This research delves into the analysis of how prolonged warfare affects the neurobehavioral well-being of Ukrainian and Israeli citizens focusing on concepts, like learned helplessness, resilience and time perspective. The results indicate levels of helplessness and resilience among participants from both countries with noticeable differences between genders.

Ukrainian women displayed levels of helplessness compared to Israeli women reflecting the immediate impact of the ongoing war in Ukraine. Ukrainian men also reported levels of helplessness than their Israeli counterparts although the difference was not as marked. The continuous exposure to stressors in Ukraine contributes to feelings of helplessness resulting in psychological challenges.

On the hand Israeli women showed resilience scores than Ukrainian women suggesting that Israeli citizens may have stronger social support systems and resilience building measures in place. Similarly Israeli men exhibited levels of resilience compared to men. This disparity hints at how the prolonged duration of the conflict, in Israel may have fostered coping strategies over time when compared to Ukrainians who are currently facing a more intense conflict without having had as much time to develop similar resilience mechanisms.

Ukrainian participants, both men and women, exhibited a lower orientation towards the future and a more negative view of the past compared to their Israeli counterparts. This difference reflects the ongoing uncertainty and disruption caused by the war in Ukraine. Israeli participants maintained a more balanced time perspective, with higher scores in future orientation and positive past experiences, suggesting better psychological adaptation and coping strategies in dealing with prolonged war.

The cognitive assessments revealed that Israeli women outperformed Ukrainian women in



sustained attention, complex problem-solving, working memory, and goal-directed behavior. Similarly, Israeli men showed superior performance in these cognitive domains compared to Ukrainian men. These findings indicate that Israeli participants have developed more effective mechanisms to manage the cognitive demands of prolonged war.

Israeli women also scored higher in maintaining cognitive flexibility, establishing deep connections with themselves and others, activating social connections, integrating past, present, and future experiences, creative self-expression, and the clarity of vague memories. Ukrainian men and women scored lower across these domains, suggesting that the chronic stress of ongoing warfare in Ukraine has a more debilitating effect on passive neurocognitive activity.

Israeli participants, especially women, demonstrated superior ability in detecting and integrating emotional and sensory stimuli, modulating attention shifts, facilitating communication and social behavior, and enhancing self-awareness and information integration. These neurobehavioral patterns indicate that Israeli citizens might be better equipped to manage the cognitive and emotional challenges posed by prolonged war, potentially due to more consistent exposure and better-preparedness infrastructure.

The use of the “Unified Framework, for Comprehensive Psychological Assessment and Intervention; Metacognitive, Neuropsychological and Psychodynamic Approach” is extremely valuable and advantageous. This framework holistic approach, merging metacognitive, neuropsychological and psychodynamic strategies offers an insight into the conditions of people facing ongoing stress and trauma. Through utilizing this framework mental health experts can create impactful support structures boosting resilience diminishing acquired helplessness and fostering mental wellness.

In summary this research emphasizes the importance of tailored interventions to aid the mental well-being of individuals enduring prolonged conflict situations. The notable discoveries, such, as the prevalence of helplessness and varying levels of resilience and time perspective emphasize the need for implementing the Unified Framework in areas affected by war like Ukraine and Israel. By acknowledging and addressing these distinctions mental health professionals can establish support systems to promote the welfare and resilience of those residing in these high-pressure environments. Subsequent studies should further investigate these connections. Evaluate the efficacy of suggested interventions to safeguard the well-being and resilience of individuals, in conflict affected regions.

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