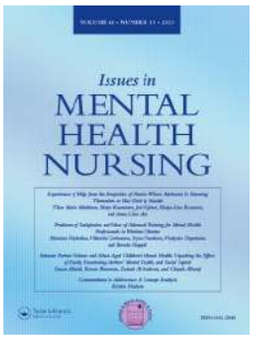

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Predictors of Satisfaction and Value of Advanced Training for Mental Health Professionals in Wartime Ukraine

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ABSTRACT

The full-scale escalation of Russia's war against Ukraine in 2022 created a surge of mental health issues, requiring urgent, evidence-based interventions to reduce trauma and mitigate stress. Reflecting recommendations from leading specialists in the field, Ukrainian mental health professionals sought to develop appropriate skills and knowledge for working in wartime through advanced training programs. This study aimed to investigate the experiences of Ukrainian mental health professionals having completed advanced training in mental health topics in wartime. A survey design was adopted, using the purposefully developed, and validated 'Wartime Learning Satisfaction Scale'. Regression analysis assessed the hypothesized contribution of four scales (Education, Educator, Learner, and War) to the perceived value of advanced training and learners' satisfaction. Respondents ($n=271$) were trained in up to 30 courses ($M=4.27$, SD = 3.03) lasting from two to over 120 h. Regression analysis revealed different predictors for satisfaction and value of the courses. Advanced training resulted in higher satisfaction with learning if it matched professional goals of mental health professionals and perceived higher value when relevant to societal demand, consistently constructed, practically useful, and not solely focusing on war-related issues. Respondents who completed all advanced training courses they were interested demonstrated significantly higher confidence in working in wartime. These findings are essential for effective mental health practice during wartime.

Introduction

After eight years of Russian aggression in the East of Ukraine and Crimea annexation, in February 2022, Russia launched a new all-Ukrainian invasion. Ukrainian people faced various issues caused by war: from being forced to decide whether to stay home, fight, or take refuge—to physical and psychological trauma. The war created a surge of mental health issues (Vus & Esterlis, 2022; Xu et al., 2023), compounding the issues that followed the previous invasion in 2014 (Roberts et al., 2019; Singh et al., 2021). Research showed that 52.7% of Ukrainian adults experienced severe mental distress, 54.1% anxiety, and 46.8% depression (Xu et al., 2023) compared to 22% depression and 17% anxiety in 2016 (Roberts et al., 2019). Overall mental health crisis caused by the war required urgent responses (Everly & Lating, 2022; Frankova et al., 2022; Rozanov et al., 2019), especially in children (Betancourt et al. 2013) and other vulnerable populations (Chaaya et al., 2022; Prib et al., 2023).

The COVID-19 pandemic (Shojaei & Masoumi, 2020), ongoing war since 2014 (Klymchuk et al., 2022; Roberts et al., 2019), and the 2022 Russian invasion of Ukraine have profoundly impacted the population's mental health and wellbeing. Researchers anticipate that experiencing multiple traumas may result in the development of complex posttraumatic stress disorder (CPTSD) and prolonged grief disorder (PGD) among Ukrainians (Shevlin et al., 2022). It is, therefore, crucial that Ukrainian mental health professionals strengthen their capacity to screen for mental distress and focus on providing psychological first aid, personalized care to vulnerable populations, and preventing complications and suicidal tendencies (Chaaya et al., 2022). Mental health

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professionals need preparation for practice in wartime (Matiashova et al., 2022), particularly since an urgent need for substantial changes in mental health training, to implement an evidence-based approach to understanding education outcomes by specific competencies, was noted in Ukraine pre-war (Kopchak et al., 2020; Kreimeyer et al., 2020). Lack of knowledge and skills in evidence-based interventions to reduce trauma and mitigate stress poses a major barrier. Some staff were considered sufficiently prepared to launch crisis helplines without delay (Pinchuk et al., 2022), and other services used chatbots to provide some level of support (Frankova et al., 2022). However, some mental health professionals needed several months of specific training in crisis and trauma-related care (Palii et al., 2023). For instance, 58.3% of surveyed school psychologists reported feeling unprepared for crisis interventions when the war commenced (Velykodna, Deputatov, et al., 2023).

Since February 2022, many mental health educational programs (i.e. advanced training courses, seminars, lectures) have been conducted in Ukraine by higher education institutions, professional associations, or personal initiatives (Palii et al., 2023). Internationally recognized institutions specializing in providing psychological care and crisis interventions, including during wartimes, offered local institutions assistance in the training of mental health specialists and volunteers. However, the type of training required was not clear (Matiashova et al., 2022).

Background

Research suggests knowledge and skill development can be achieved through mental health training (Booth et al., 2017) with at least a moderate impact on practice (Williams & Smith, 2017). Ongoing support or consultations following training, congruence between the training content and the learner's experience, and the provider's and trainee's motivation have been identified as key to providing effective education (Lyon et al., 2011; Picciano et al., 2021).

Single-exposure training models and the simple provision of information through workshops are effective for behavioral changes (Ramani et al., 2019). However, varied educational techniques increase the effects of specific approaches (Maindonald et al., 2020; Picciano et al., 2021). Learning outcomes also depend on individuals' previous experience. More competent practitioners tend to achieve greater professional outcomes from training initiatives (Kurczewska et al., 2020).

Mental health training of sufficient length to develop mastery in learned skills is recommended (Rolnick et al., 2019), accompanied by ongoing support (Ramani et al., 2019) provided by experienced practitioners (Heggart & Yoo, 2018), utilizing different educational techniques (Maindonald et al., 2020; Picciano et al., 2021), and relevant to students' experience and motivation (Andresen et al., 2020; Brockett & Hiemstra, 2018; Leberman & McDonald, 2016). However, during war and other crises, well-focused advanced education of shorter duration might be more appropriate for immediate needs (Palii et al., 2023).

A proliferation of papers on education during crises has been published recently in response to the COVID-19 pandemic. The transition to online learning impacted students, educators, and educational settings, resulting in 'digital fatigue' and a feeling of a "digital divide" (Housel, 2023). Educators were required to transition rapidly to online training, negatively affecting their job motivation (Kulikowski et al., 2022). "E-learning enthusiasts", on the other hand, perceived it as a valuable opportunity to develop new skills (Neuwirth et al., 2021).

Armed conflicts and wars pose a further risk to education (Ma et al., 2022). Most wartime education issues could not easily be addressed by the implementation of distance learning (Sherman et al., 2022). Research investigating online education in wartime Ukraine demonstrated that educators generally felt unprepared for the rapid shift to e-learning due to the war (Matviichuk et al., 2022). Only 25% of students identified as comfortable studying online, despite 60% indicating they wanted to continue learning (Matviichuk et al., 2022). Eight major obstacles to students were identified as: (1) war itself, (2) absence of electricity, (3) lack of Internet, (4) psychological discomfort from explosions, (5) risks of explosions nearby, (6) thoughts about other matters, (7) equipment deficiency, and (8) military operations near students' settlements (Matviichuk et al., 2022).

Evidence about the influence of educational settings, educators' approach, and learners' experience and motivation for mental health training, might not apply to wartime. War may bring specific challenges to learning and satisfaction with education (Rajab, 2018). Understanding experiences of advanced education for Ukrainian mental health professionals during wartime is essential to understanding their satisfaction with learning experiences in wartime and determining any changes in predictors of satisfaction due to the war.

The aim of this study was to investigate the experiences of Ukrainian mental health professionals who had completed advanced training in wartime, ranging from crisis intervention to psychotherapy methods education or lectures on specific topics.

Methods

Study design

A survey was considered most appropriate for this study. The research team developed a questionnaire to achieve the study aims. This process used recognized algorithms for developing questionnaires and collecting validity evidence in graduate healthcare educational research (Phillips et al., 2021; Sullivan & Artino, 2017), presented in Figure 1.

The *research question was:* "What predicts mental health professionals' satisfaction and value of advanced training in wartime?". As a result of the *literature review*, we constructed the theoretical framework for our questionnaire, which focused on satisfaction with learning, the value of learning, and its potential predictors (Figure 2). Satisfaction with learning is widely used in assessing the self-reported learners' experience; however, recent research suggests that focusing solely on satisfaction might reveal a hedonistic perspective on the studied phenomena and should be compounded with other variables such as a sense of meaningfulness or value

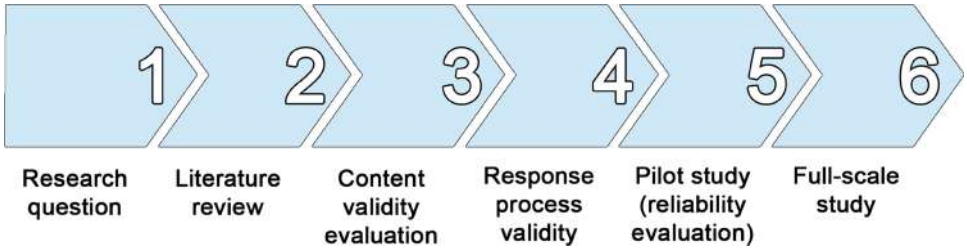

Figure 1. The research design used in this study.

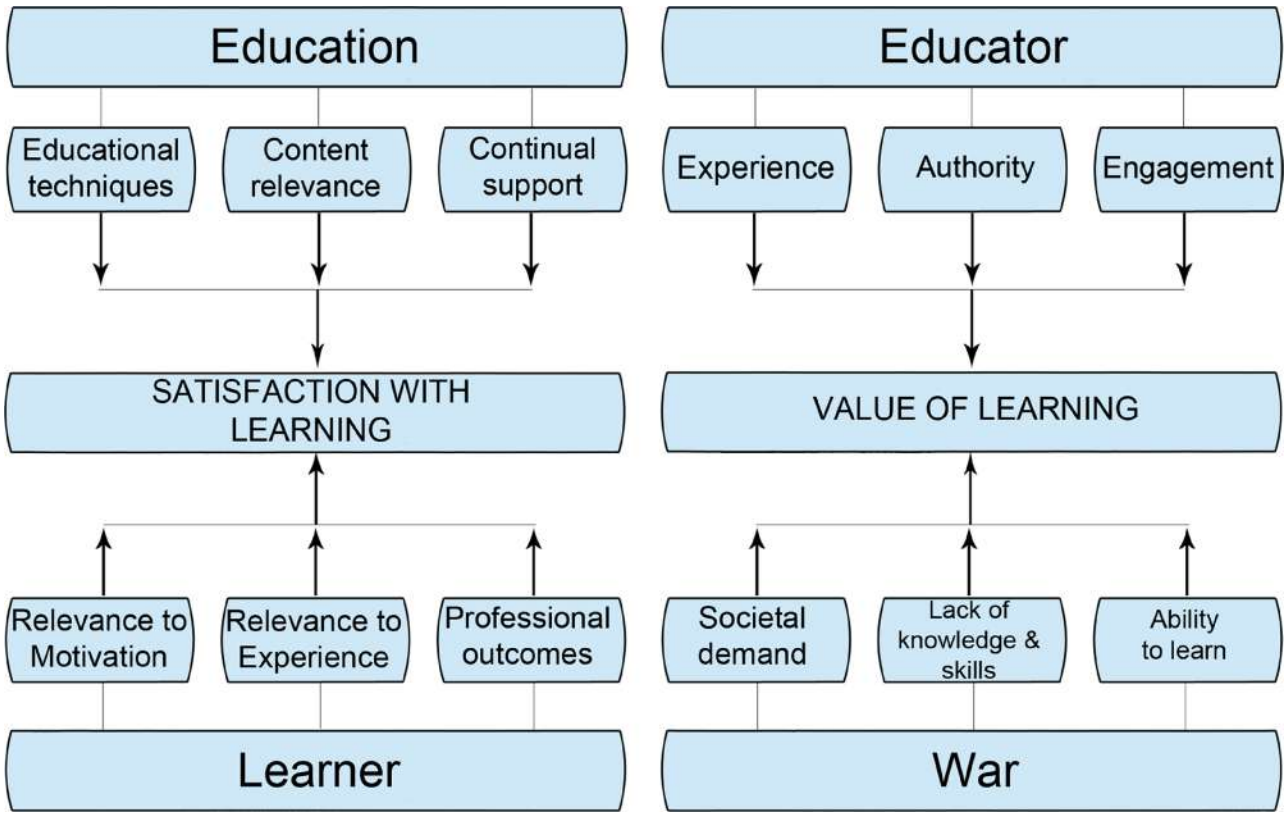

Figure 2. The theoretical framework of the study.

(Krys et al. 2023). The theoretical framework used in this study was developed from published research findings on predictors of satisfaction and outcomes of undergraduate and advanced mental health training and training adults generally. The framework informed the three scales «Educator», «Education» and «Learner» with specific subscales relevant to research in the field. These factors were supplemented with the fourth one, «War», and its relevant subscales based on the authors' hypotheses on how war might influence advanced training value and satisfaction with it.

Questionnaire development

Based on the theoretical framework, we developed the Likert-scale based questionnaire "Wartime Learning Satisfaction Scale" (WarLeSS) (See Appendix A). The 42-item questionnaire includes 14 concepts, each with three items. Among them, 12 independent variables as the subscales of hypothesized predictors, and two dependent variables: satisfaction with advanced training and its value. The questionnaire comprises a 5-point Likert scale: ranging from "Strongly disagree" (1) to "Strongly agree" (5). Respondents who had completed more than one advanced training were asked to consider their most preferred experience when responding to questions. A *content validity evaluation* was undertaken. Five recognized researcher leaders from Ukraine and Poland checked the relevance of the questionnaire items and suggested changes. Items were tested for clarity and adequacy of cognitive understanding in *response process validity evaluation* (Phillips et al., 2021) involving 12 mental health professionals. They read the questionnaire and explained how they understood each item during individual online meetings with one researcher. After every meeting, the researchers discussed the result and modified items when required.

The questionnaire also sought sociodemographic and professional information, questions about respondents'

Table 1. WarLeSS scales and subscales reliability calculation.

Scale	Subscale	Cronbach's coefficient alpha
1. Education	1.1 Educational technologies	0.819
	1.2 Continuing support	0.818
	1.3 Content relevance	0.836
	Overall	0.918
2. Educator	2.1 Educator's experience	0.928
	2.2 Educator's authority	0.828
	2.3 Educator's engagement	0.854
	Overall	0.945
3. Learner	3.1 Relevance to a learner's previous experience	0.852
	3.2 Relevance to professional motivation	0.894
	3.3 Perceived individual professional outcomes	0.873
	Overall	0.951
4. War	4.1 Relevance to societal demand in wartime	0.848
	4.2 Relevance to a lack of knowledge and skills caused by the war	0.858
	4.3 Ability to learn in wartime	0.739
	Overall	0.929
Dependent variables	Satisfaction with learning	0.939
	Value of learning	0.942

general experiences of learning in wartime, and their preferred advanced training experience. For example, how participants chose training programs; if they completed training; what outcomes were observed; whether they received a certificate or other formal acknowledgment; and whether completing training led to employment opportunities.

A *pilot study* was undertaken to determine Cronbach's coefficient alpha according to the sample size calculation by the principal component analysis (PCA) (Yurdugül, 2008). If the level of the first (largest) eigenvalue obtained from PCA is 3.0-6.0, the sample size for reliability calculation should exceed 100 responses. While for PCA level over 6.0, 30 responses are satisfactory. Our research gathered 57 responses during the pilot. The first eigenvalue measured by PCA was 20.67. Therefore, the Cronbach's coefficient alpha for the subscales suggests their reliability (see Table 1), and the questionnaire was used for the full study.

Ethics

The study was conducted according to the principles of ethical scientific practice involving people. Ethical approval for the study was granted by the Ethical Commission of… (concealed for anonymous review). Following the principles of the Declaration of Helsinki, all participants were asked to provide written consent before completing the survey. Written consent was collected with the main survey questions via Google form. Participation was voluntary and anonymous, with no potentially identifying information collected. In the invitation letters, participants were informed that they could withdraw from the study at any time.

Participants and data collection

Data were collected online between July and August 2022 via Google Forms. Invitations to participate were circulated via emails and social media with the largest professional associations in Ukraine, the National Psychological Association, the Association of Psychotherapists and Psychoanalysts of Ukraine, and the Ukrainian Union for Psychotherapy. The total number of members in these associations was approximately 3,500. The invitation was not extended to nurses as they were not recognized as mental health professionals at the time of the study. Unfortunately, no published data about the number of professionals who underwent advanced training in wartime was available. From observations through our educational roles and own advanced training activities, we estimate approximately 1000 mental health practitioners were trained between February and July 2022. The joint response rate for participation in a pilot and full study was 32.8%.

Data analysis

Data analysis was undertaken using IBM SPSS Statistics 23 software. Regression analysis was used to identify predictors (among WarLeSS scales and subscales as independent variables) of satisfaction with learning and its perceived value as dependent variables. Additional results presented (e.g. general experience of advanced training in wartime and the best course) were extracted with (a) descriptive statistics for data presentation; (b) rank correlation calculation, (c) Chronbach's Alpha coefficients for reliability calculation, (d) data comparison using the Mann-Whitney test for ordinary data, and (e) Pearson Chi-square χ^2-test for frequencies.

Results

Two hundred and seventy-one respondents completed the survey (excluding 57 individuals from the pilot study). The sample size corresponded to the confidence level of 95% with a 5.1% margin of error. Most participants were female and aged 31–48 years old. The majority were psychologists working in private practice, educational institutions, NGOs, and the mental health system. Three-quarters remained in Ukraine, and 83.03% indicated that they maintained their practice as mental health professionals in wartime. Further information is presented in Table 2.

Participants involvement in advanced training

Respondents were asked about their experience of advanced training since the declaration of war. Survey participants studied in up to 30 advanced training programs during the first 6 months of the war, with the majority completing between one and seven. Only 42.8% had completed all training they were interested in. Further information is presented in Table 3.

The most important participants' self-reported criteria for choosing an advanced training program in wartime (rated with a five-level Likert scale) were the program's topic relevance to their practice ($M = 3.554$), experienced educators ($M = 3.321$), flexible schedule ($M = 3.192$), affordable cost (3.011), and suitable day and time (2.908).

Table 2. Demographic characteristics of sample.

Variable		Number (n)	Percentage (%)
Highest academic degree	Bachelor's	24	8.57
	Master's	217	80.07
	Philosophy doctor	26	9.54
	Doctor of Science	4	1.48
Speciality of academic education	Psychologist	238	87.82
	Clinical psychologist	10	3.69
	Psychotherapist	7	2.58
	Psychiatrist	7	2.58
	Social worker	9	3.23
Current sphere of practice (multi-optional question)	Mental health institutions	24	8.57
	Social insurance institutions	17	6.27
	Educational institution	88	32.47
	Military unit	6	2.21
	Other governmental institution	18	6.64
	Other non-governmental institution	32	11.81
	Private Practice	168	61.99
Location at the moment of research	Ukraine	200	73.8
Practicing as a mental health professional in wartime	Yes	225	83.03
	No, due to the war	12	4.43
	No (other reasons)	34	12.55
Gender	Female	258	95.2
Age	Minimum | Maximum	22	69
	Average | St. deviation	39.94	8.49
Work experience (years)	Minimum | Maximum	1	44
	Average | St. deviation	10.08	8.05

Table 3. Summary of the sample's general experience of advanced training in wartime.

Variable		Number (n)	Percentage (%)
Months of education (multi-optional question)	February	71	26.20
	March	158	58.30
	April	206	76.01
	May	211	77.86
	June	214	78.97
	July	173	63.84
The total number of completed advanced training courses in wartime	Minimum | Maximum	0	30
	Average | St. deviation	4.27	3.03
The respondents who were in training to date of invasion (24th of February 2022)		201	74.17
The respondents who authored or organized an advanced training themselves		42	15.50
The respondents who completed all courses that were interested with		116	42.80

Table 4. Summary of the sample's best experience of advanced training in wartime.

Variable		Number (n)	Percentage (%)
Months of education (multi-optional question)	February	40	14.76
	March	99	36.53
	April	127	46.86
	May	166	61.25
	June	154	56.83
	July	114	42.07
Setting of education	Online	240	88.56
	In person	31	11.44
	Live (real-time)	244	90.04
	Recorded	27	9.96
Completed the course	Yes	231	85.24
Received a certificate of the course completion	Yes	225	83.03
Were hired due to the course completion	Yes	19	7.01
Were evaluated for the training achievements	By the educator	135	49.82
	By the learner	46	16.97
	No	90	33.21
Novelty of the course content	0% of new	3	1.11
	25% of new	66	24.35
	50% of new	132	48.71
	75% of new	63	23.25
	100% of new	7	2.58
Self-evaluated student's grade for this course (i.e. academic performance) using a scale from 1 (minimum) to 5 (maximum)	3	17	6.27
	4	182	67.16
	5	72	26.57

The best experience of advanced training in wartime

This component of the survey sought respondents' experience with the best-advanced training. Most respondents studied online or via materials video-recorded in advance. The majority completed training they commenced. Participants favored courses with the perceived novelty of content. Further information is presented in Table 4.

The distribution of responses to the multi-optional question on the content of the best-advanced training reported by the participants demonstrated that it mostly focused on learning working guidelines for specific issues (84%), working guidelines for specific clients' groups (65%), self-care skills development (61%), analysis of clinical examples (55%), and analysis of learners' practical examples (55%). As for the types of learning activities, lectures, practical activities, and skills training were most frequently mentioned.

The distribution of responses regarding the duration of advanced training demonstrated a wide range of responses, from «up to 2 h» to «more than 120 h». The most often mentioned durations were: up to 30 h (21.4%), up to 20 h (19.9%), up to 8 h (14%), and up to 60 h (10%); however, 18.8% of the respondents marked that they cannot be sure because the training is still going. Those respondents who studied offline had a longer duration of advanced training ($U = 1360.5$, $p < 0.01$). Those who studied online were more likely to choose the course because of the 'famous educator' compared to those who studied offline ($U = 2962$, $p < 0.05$).

Respondents studying in a live format (in real-time) were trained longer ($U = 1124.5$, $p < 0.01$) and tended to rate the course higher on "Educator's engagement" ($U = 2495.5$, $p < 0.05$) and "Relevance to a learner's previous experience" ($U = 2500$, $p < 0.05$) compared to those studying prerecorded courses. Those studying prerecorded courses preferred educators not from or living in Ukraine because they are less likely affected by war ($U = 2320$, $p < 0.01$), valued convenience wise ($U = 2477$, $p < 0.05$), flexibility ($U = 2583$, $p < 0.05$), or were directed to by managers ($U = 2427.5$, $p < 0.05$). Perceived novelty weakly positively correlated to the rate of reported 'new knowledge 'gained ($r = 243$, $p < 0.01$).

Participants who completed training evaluated courses higher on the scale and all sub-scales of "War" ($U = 2691$, $p < 0.01$). These respondents assessed their success with this course higher ($U = 3530.5$, $p < 0.01$), and were more likely to indicate algorithms of working with specific topics ($U = 3414.5$,

Table 5. The models summary of regression coefficients, t-values, and F-statistics.

		Satisfaction			Value		
Model	Variable	R	R Square	F	R	R Square	F
1	Model 1 summary	.607	.368	156.813**	.569	.324	128.764**
2	Model 2 summary	.622	.387	42.005**	.598	.357	36.949**
3	Model 3 summary	.649	.422	15.670**	.634	.402	14.442**
Model	**Variable**	**Coef.**	**St. Error**	**t**	**Coef.**	**St. Error**	**T**
1	WarLeSS in total	.063	.005	12.522**	.060	.005	11.347**
2	Scale 1 'Education'	.029	.035	.821	.016	.037	.429
	Scale 2 'Educator'	.034	.031	1.111	.042	.032	1.288
	Scale 3 'Learner'	.167	.037	4.516**	.200	.039	5.170**
	Scale 4 'War'	.034	.025	1.356	.001	.026	.055
3	1.1 Educational Technologies	.128	.096	1.329	−0.009	.100	−0.090
	1.2 Continuing Support	−0.123	.073	−1.688	−0.071	.076	−0.946
	1.3 Content Relevance	.237	.126	1.877	.328	.131	2.499*
	2.1. Educator's Experience	.043	.103	.412	.073	.107	.679
	2.2. Educator's Authority	.056	.075	.745	−0.072	.078	−0.924
	2.3. Educator's Engagement	−0.038	.087	−0.440	.141	.090	1.566
	3.1. Learner's experience	−0.105	.137	−0.764	.145	.142	1.018
	3.2. Learner's motivation	.251	.126	2.003*	.124	.130	.951
	3.3. Professional outcomes	.197	.135	1.453	.221	.140	1.572
	4.1. Societal demand	.180	.095	1.895	.265	.098	2.692**
	4.2. Lack of knowledge	−0.121	.099	−1.225	−0.242	.102	−2.364*
	4.3. Ability to learn	.103	.103	1.003	−0.108	.106	−1.018

Note. ** $p<0.01$; * $0.01 < p<0.5$.

$p<0.01$), new skills ($U=3343.5$, $p<0.01$) and using what they have learned in practice ($U=3356$, $p<0.01$) compared to those who did not complete the course. Those who completed the course they favored rated higher the criterion "educator is affected by the war" and had completed a larger number of training courses ($U=3070$, $p<0.01$).

Participants who received a certificate on course completion rated their training higher on all WarLeSS scales and subscales. Their responses indicated their view that they developed new skills ($U=3728$, $p<0.01$) and knowledge ($U=4188.5$, $p<0.05$) and considered content more valuable ($U=4260$, $p<0.05$). This group of respondents studied longer ($U=1820$, $p<0.01$) and reported that they chose this training because of certification availability ($U=3245$, $p<0.01$) and recognized educational credentials ($U=3429.5$, $p<0.01$).

Respondents who completed all advanced training courses they sought to, were more likely to report increased confidence in working during the war ($U=7202$, $p<0.01$), with higher scores on "Education" ($U=7158.5$, $p<0.01$), "Continuing support" ($U=7202$, $p<0.01$), "Educator" ($U=7192.5$, $p<0.01$), "Educator's authority" ($U=7074$, $p<0.01$), "Relevance to professional motivation" ($U=7266$, $p<0.01$), and tended to be more satisfied with their learning ($U=7471$, $p<0.05$). This group valued interesting topics ($U=6402$, $p<0.01$), foreign educational institution ($U=7207$, $p<0.01$) and enhancing their qualifications ($U=7047$, $p<0.01$) as more important criteria for choosing courses.

Finally, mental health professionals who continued working in wartime evaluated their "Perceived individual professional outcomes" of the advanced education considerably higher than those who suspended practicing ($\chi^2=9.38$, $p<0.01$). They also rated their outcomes significantly higher, including: "developed new skills" ($\chi^2=13.92$, $p<0.01$), "learned an algorithm of working with specific issues" ($\chi^2=9.48$, $p<0.01$), and "used newly learned material in practice or life" ($\chi^2=17.76$, $p<0.01$).

Satisfaction and value were strongly positively correlated to each other ($r=0.689$, $p<0.01$). Those who considered the training course valuable were more likely to evaluate their satisfaction with it higher, and vice versa.

Predictors of satisfaction and value of the advanced training

To consider factors contributing to satisfaction with learning and the value of studying in wartime, we tested three prediction models for one, four, and 12 independent variables via regression analysis. The first model included four scales of WarLeSS. We summarized each independent variable to test whether it predicted the dependent variables (satisfaction with learning and its value). The second model used four WarLeSS scales as four independent variables. Finally, the third model tested 12 subscales as 12 independent variables. The summarized findings on the prediction value of all three models toward satisfaction with learning and its value are presented in Table 5.

As demonstrated in Table 5, all three proposed models predicted satisfaction with learning and its value to some extent (maximum for 42.2% of the sample). The *first model* explained 36.8% of responses regarding satisfaction with advanced training and 32.4% regarding its meaningfulness. According to this model, the WarLeSS 4-scales-in-1 (180 points maximum) impacted an increase of satisfaction with learning on 0.063 points and a sense of its meaningfulness on 0.060 points (with 15 points maximum). However, this model did not specify the separate predictors.

The *second model* explained 38.7% of responses regarding satisfaction with the educational course and 35.7% regarding its value, highlighting the scale "Learner" as the only contributor to the scores of both dependent variables (due to the significance of its t-value). In the second model, every one point on the scale "Learner" (maximum 45 points)

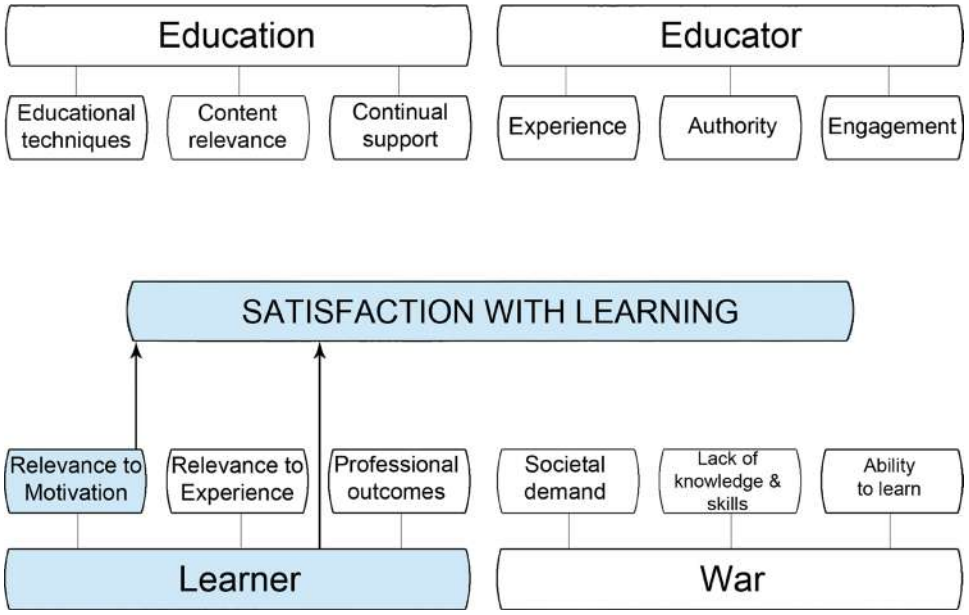

Figure 3. Predictors map for mental health professionals' satisfaction with advanced training in wartime.
Note. The map illustrates the summarized results of regression analysis.

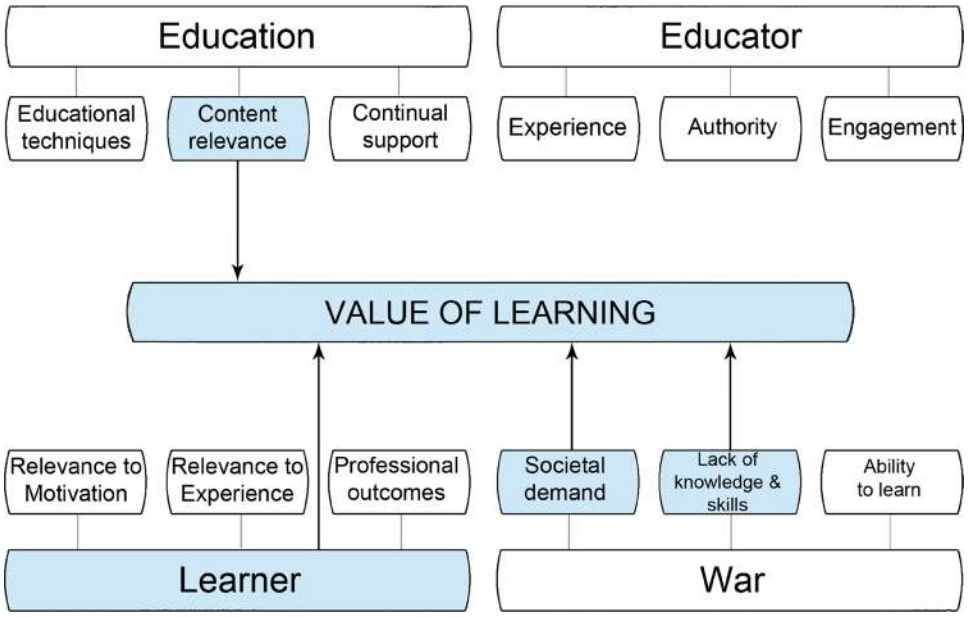

Figure 4. Predictors map for mental health professionals' value of advanced training in wartime.
Note. The map illustrates the summarized results of regression analysis.

brought a change of 0.167 points in satisfaction and enhanced value by 0.200 points (among 15 points maximum).

The *third model* explained 42.2% of responses on satisfaction with training and 40.2% of data on the meaningfulness of the education, distinguishing predictors for each dependent variable. As for the satisfaction with learning, every point on subscale "Relevance to learners' professional motivation" (15 points maximum on all subscales), predicted an increase in students' satisfaction with learning in wartime by 0.251 points (among 15 points maximum). The value of advanced education was predicted by several contributors: "Content relevance", and "Relevance to societal demand in wartime". Surprisingly, "Relevance to a lack of knowledge and skills caused by the war," composed of the items on competencies to work during the war understanding its influence, predicted reducing of the value of advanced training by 0.242 points.

In sum, the results showed that learners, and their perception of the course as relevant to their professional motivation, predicted satisfaction with learning (Figure 3). The learners themselves, the content consistency, and its relevance to societal demand related to the war predicted the value of education (Figure 4). An unexpected result is that the relevance of the advanced training to the lack of

knowledge and skills to work during the war predicted the value of learning but negatively.

Discussion

A surge in mental health issues since the Russian invasion of Ukraine (Xu et al., 2023) required immediate competent responses from mental health professionals in the field (Frankova et al., 2022; Kreimeyer et al., 2020). When war was declared, Ukraine lacked sufficient mental health services and required better coordination to meet demand, particularly of vulnerable groups (Kopchak et al., 2020; Quirke et al., 2022; Skokauskas et al., 2020), including internally displaced people (Roberts et al., 2019; Singh et al., 2021). The level of preparedness of mental health professionals to work in wartime Ukraine ranged from those with expertise in crisis interventions (Pinchuk et al., 2022) to workers with minimal relevant skills and previous experience, requiring rapid multifaceted education (Palii et al., 2023).

Findings from the current study suggest that in line with recommendations from leading specialists in the field (Chaaya et al., 2022; Vus & Esterlis, 2022), Ukrainian mental health professionals attempted to gain appropriate skills and knowledge for work in wartime. The obtained results enable a better understanding of the specifics of valuable advanced training for mental health professionals during times of war.

Foremost, mental health professionals who completed all advanced training programs they were interested in, reported significantly higher confidence in working in wartime. Confidence is considered an important outcome of mental health professionals' education (Zapko et al., 2018). The lack of training and supervision was associated with reduced confidence in working with specific issues and using evidence-based interventions for them (Finch et al., 2020). Providing sufficient training on various topics matching mental health professionals' gaps in skills and knowledge is crucial for contributing to evidence-based practice in wartime.

Unlike university students, whose satisfaction in peacetime was linked more to environmental variables (Ramani et al., 2019; Zapko et al., 2018), the main variable predicting satisfaction with advanced training courses among mental health professionals in wartime was the perception that the course was relevant to their professional motivation, e.g. career development and professional plans and goals. The greater the perceived relevance, the higher the rating, which is consistent with previous findings that higher motivation for learning is linked to perceived personal fulfillment (Luke & Justice, 2016). This also may be commented on considering the importance of self-directed learning in adult education, i.e. the importance of the support of learners to set their individual goals and determine what is the most important for them to learn (Brockett & Hiemstra, 2018; Loeng, 2020). Self-directed learning has demonstrated its role as one of the most motivating factors in adult learning (Sogunro, 2014). Tailoring training courses to previous professional plans might be helpful in coping with the harmful uncertainty of war (Vus & Esterlis, 2022). Similar to our research, mental health professionals trained in wartime might represent different fields of work, are at different stages of their careers, and work in different settings; therefore, their professional goals would differ. It is recommended that time is provided at the commencement of training to formulate professional goals and consider how the training opportunity might contribute to realizing those goals.

The perceived value of advanced training was predicted by its relevance to societal demand caused by war. Training programs devoted to exploring and explaining the war's effects and consequences for populations and helping people cope with wartime were rated higher. This finding highlights a change compared to recent pre-war observations. According to Ukraine data collected pre-war, Ukrainians tended to idealize more individualistic life satisfaction compared to interdependent happiness and societal well-being (Krys et al., 2023). However, a shift in the values of Ukrainians toward increased importance of the well-being of their loved ones, local communities, and society in general likely occurred in response to the war (Melnyk & Malynoshevska, 2022; Velykodna, Mishaka, et al., 2023; Vus & Esterlis, 2022). Training programs should therefore provide learners with a clear description of its potential societal impact.

Although mental health professionals highly valued the relevance of their advanced education to war-related societal demand, they were critical of training that focused solely on preparation for work during the war. During the first months of the Russian invasion, many denied the scale of this war and waited for it to end soon and for pre-war life to resume (Vus & Esterlis, 2022). Moreover, mental health workers often experienced stress, anxiety, depression, and burnout in response to the war themselves (Pinchuk et al., 2022; Velykodna, Deputatov, et al., 2023). Therefore, mental health professionals may have sought educational opportunities with a greater focus on practice more broadly, enabling distraction from war-related topics. Distraction and disengaged behavior were observed as constructive coping strategies among Ukrainians (Xu et al., 2023). It may also explain why obtaining a certificate of course completion and recognized educational credentials were associated with higher satisfaction rates. Formal qualifications may be equally or more desirable than addressing specifically local and potentially temporary issues. This may represent a desire to preserve something constant and relevant to a postwar future (Bollas, 2018; Elise, 2020; Velykodna, 2021) in the face of the permanent danger of death and losses (Pinchuk et al., 2022). Content appropriate for practicing in a range of crisis or peacetime circumstances should be included in training and course advertising to highlight the value for continuous practice.

Participants favored practically focused courses and benefited more when combining advanced training with maintaining their practice, allowing them to complete more training than those who had to suspend practicing. This may reflect perceptions of education in times of crisis. Recent data collected from secondary school students in wartime Ukraine showed they were more likely to associate satisfaction with classes with their interest in, and perceived usefulness of the subject, rather than the teacher's personal

traits or clear presentation of material (Meshko et al., 2023). This finding might highlight the role of experience-based learning in achieving better training results (Andresen et al., 2020). Practically focused training activities that encourage students to implement new skills into their practice should be prioritized (Knowland & Thomas, 2014).

The value of advanced training was predicted by the relevance and consistency of its content, including clear links between course title, information, and skills. This finding highlights the importance of clearly composed material, preventing potential time wasting on irrelevant topics. It has been suggested that people in crisis circumstances are more sensitive to the feeling of "wasted time" associated with helplessness and guilt (Capper, 2020). A thorough revision of course consistency and novelty should be undertaken to ensure the content reflects the main topic.

The most highly rated advanced training often included psychological self-care skills development. This is crucial for mental health professionals working in crisis roles (Dattilio, 2015; Rudaz et al., 2017). Integrating self-care directly into training programs for mental health professionals reflects recent findings on its value for preventing stress, burnout, and professional impairment through education instead of treating them reactively (Posluns & Gall, 2020). People providing crisis intervention should attend to self-care at three levels: (a) awareness of their job risks and knowledge of self-care principles; (b) recognition of the serious vulnerabilities and risks of the work; and (c) the need for self-care to be practiced constantly (Hinz, 2018; Malinowski, 2014). Self-care practices in crisis circumstances include achieving satisfaction or at least no negative effects in other domains of life, flexibility in coping strategies usage, support of physical health through sleeping, exercises and nutrition, and sufficient social support (Posluns & Gall, 2020). It is crucial to identify one's own previously unexplored areas triggered by the clients' stories and seek consultation or psychotherapy (Danieli, 2002). No less important is ongoing monitoring of the self-care practice of crisis workers through surveys and questionnaires (e.g. Self-Care Questionnaire and Self-Care Assessment Worksheet, Henson, 2018). Self-care strategies to assist the development of self-care knowledge and skills in students should therefore be integral to war-based training.

Most participants demonstrated a preference for education conducted by Ukrainian educators who had experienced the effects of war. This corresponds to the role of peer-to-peer education (Heidenreich & Breukers, 2020; Ramani et al., 2019) and the increased need for social cohesion in wartime (Fiedler & Rohles, 2021; Gilligan et al., 2014) inherent to Ukrainians (Melnyk & Malynoshevska, 2022; Vus & Esterlis, 2022). This may reflect the need for easy understanding, joint cultural backgrounds, and mutual recognition of war-related experiences as sources of psychological support for the participants (Mollah et al., 2018; Yakushko et al., 2016; Yevlanova, 2023). Educators from the same or other war areas should be part of educational teams providing advanced training for mental health professionals in wartime to support perceived cultural or emotional understanding.

Limitations

This study has two main limitations. First, the gender distribution of survey respondents presents mostly females, which is typical for research involving mental health professionals in this region (Chorna et al., 2021; Hook et al., 2021). Second, the proposed research design focused only on professionals' perspectives to assess their outcomes of education rather than clinical outcomes. Finally, as the data was gathered in specific circumstances of the war in Ukraine, they might not be extrapolated fully to the educational settings of the other war zones.

Conclusions

Wartime as an emergency situation requires mental health workers to provide rapid and relevant services to mitigate the consequences of war exposure and witnessing. Mental health professionals play a crucial role in maintaining and restoring mental health and well-being for people experiencing psychological distress and need to have the relevant skills and knowledge to do so effectively. In times of crisis, such as war, different skills and knowledge are required to meet a dramatic increase in need. Mental health practitioners need high-quality training to provide to become effective practitioners in response to war or other crises. Understanding student satisfaction with training in wartime is necessary to determine what makes advanced training courses useful and valuable in these specific circumstances.

Following the 2022 Russian invasion, many Ukrainian mental health professionals sought multiple education programs to enhance their confidence and develop the knowledge and skills needed to live and work in war circumstances. Advanced training was valued more highly if it matched their professional goals and was relevant to societal demand, consistently constructed, practically useful, and not solely focusing on war-related issues. These findings could be used in further training course construction and are potentially relevant to education in other countries experiencing war and also other crises such as fires, floods, cyclones, and other natural disasters.

In Ukraine, several new draft laws devoted to mental health and the order of providing psychological assistance have been recently introduced by the government and currently undergoing public discussion before implementation (Ministry of Healthcare of Ukraine, 2022). Due to these new projects, inspired by international experience in setting national mental health systems, nurses will soon be recognized as mental health professionals authorized to provide psychological support in addition to psychiatrists, psychotherapists, psychologists, social workers, and chaplains (Ministry of Healthcare of Ukraine, 2022). As nurses usually comprise the largest professional group of the mental health workforce and, therefore, strengthen the capacity to provide valuable psychological support during crises (Delaney &

Vanderhoef, 2019). WarLeSS would be a useful tool in determining nursing-specific characteristics of training that require consideration.

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MV - Contributed to all aspects of project, design, preparation, data collection, data analysis and drafting and finalization of manuscript.

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Appendix A

The questionnaire "Wartime Learning Satisfaction Scale" (WarLeSS)

Instruction 1: Please, remember your best learning experience in the wartime period and rate the items below considering this training. Indicate which response is correct for you for each item by five levels: 'Strongly disagree', 'Disagree', 'Neither agree nor disagree', 'Agree', and 'Strongly agree'.

No	Item	*Strongly disagree*	*Disagree*	*Neither agree nor disagree*	*Agree*	*Strongly agree*
1	The training complements my previous knowledge.					
2	The training contributes to my professional development.					
3	I can use what I have learned in practice.					
4	The training is conducted in an interesting format.					
5	Training has an optimal duration.					
6	The content of the training corresponds to the stated topic.					
7	The teacher has much experience in studying the subject of the training.					
8	The teacher has authority in the field of the subject of the training.					
9	The teacher is motivated to help me master the topic.					
10	The topic of the training deals with the problems caused by the war.					
11	The training reveals precisely those aspects of the subject that I lacked in my work during the war.					
12	The training format allows me to study under conditions of war and martial law.					
13	The training complements my previous work experience.					
14	The training contributes to my professional career.					
15	I can use what I have learned to explain what I observe as a professional.					
16	The training uses clear illustrations and examples.					
17	The training has a long enough support for students during education.					
18	The knowledge and skills offered in training are clearly interconnected.					
19	The teacher has much practical experience in general.					
20	The teacher is authoritative in professional practice.					
21	The teacher is interested in students achieving learning goals.					
22	The training is aimed at helping to deal with the consequences of war.					
23	The training helps me better understand the impact of the war on my work.					
24	The content and format of the training take into account my psychological condition due to the war.					
25	The training coincides with what I observe as a professional.					
26	The training increases my confidence in building professional plans.					
27	I see clear professional results that this training brings.					
28	Training combines different types of work (e.g. lectures, practical training, supervision).					
29	After graduation, further support of specialists is provided.					
30	The content of the training corresponds to my professional request.					
31	The teacher has extensive practical experience in the subject of training.					
32	Studying with this teacher is prestigious.					
33	The teacher is ready to devote time and effort to the student's assimilation of the material.					
34	My training indirectly helps others in times of war.					
35	Training develops skills for work in wartime.					
36	I feel I can handle this training in wartime.					

Instruction 2: Now, please think about your satisfaction with this training and rate the items below by five levels: 'Strongly disagree', 'Disagree', 'Neither agree nor disagree', 'Agree', and 'Strongly agree'.

No	Item	*Strongly disagree*	*Disagree*	*Neither agree nor disagree*	*Agree*	*Strongly agree*
37	I am satisfied with this training					
38	In general, most of the training satisfied me					
39	I am satisfied with the outcomes of this training					

Instruction 3: Finally, we would like to know if this training was valuable for you. Please, rate the items below by five levels: 'Strongly disagree', 'Disagree', 'Neither agree nor disagree', 'Agree', and 'Strongly agree'.

No	Item	*Strongly disagree*	*Disagree*	*Neither agree nor disagree*	*Agree*	*Strongly agree*
40	I feel the value of this training					
41	Most of the training was valuable to me					
42	Training outcomes are valuable to me					

Scores calculation: the scores for each scale and subscale calculates as a sum of item rates according to the keys below. The response 'Strongly disagree' counts as 1, 'Disagree' as 2, 'Neither agree nor disagree' as 3, 'Agree' as 4, and 'Strongly agree' as 5.

Keys:

Scale 1 'Education': Subscale 1.1 (items 4, 16, 28), Subscale 1.2 (items 5, 17, 29), Subscale 1.3 (items 6, 18, 30).
Scale 2 'Educator': Subscale 2.1 (items 7, 19, 31), Subscale 2.2 (items 8, 20, 32), Subscale 2.3 (items 9, 21, 33).
Scale 3 'Learner': Subscale 3.1 (items 1, 13, 25), Subscale 3.2 (items 2, 14, 26), Subscale 3.3 (items 3, 15, 27).
Scale 4 'War': Subscale 4.1 (items 10, 22, 34), Subscale 4.2 (items 11, 23, 35), Subscale 4.3 (items 12, 24, 36).
Variable 'Satisfaction with learning': items 37, 38, 39.
Variable 'Value of learning': items 40, 41, 42.