

Original Article

Impact of war on editors of science journals from Ukraine: Results of a survey

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Declaration of interests

The authors declare no competing interests. Although Iryna Izarova is the Chair of the Ukrainian chapter of EASE, Maryna Zhenchenko is the Vice Chair, and Yuliia Baklaghenko is a member of EASE, the views expressed in the article are those of the authors and not of the European Association of Science Editors.

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Abstract

Background: The war influences every step of the publishing process from the organizational structure of the journal and its business model to the psychological and financial well-being of its staff.

Objectives: The main aim of our research was to collect and analyse data on how the war has changed the operation and daily lives of those who work in editorial services and how significantly it has impacted their job and work.

Methods: The surveyed population comprised the staff on the scientific journals listed in the Ukrainian electronic register of the state scientific institution, namely the Ukrainian Institute of Scientific and Technical Expertise and Information. The participants were asked to complete a questionnaire designed to collect data on the background and activities of the journal during wartime.

Results: Among a total of 160 respondents (a response rate of 13.2%), 85 (53.1%) experienced changes in editorial structure and work, particularly evident in fewer articles (mentioned by 71, or 44.4%, respondents), a switch to working remotely owing to relocation of staff (38, or 23.8%, respondents), changes in the frequency of publication (34, or 21.3%, respondents), changes in the topics covered in the articles (25, or 15.6%, respondents), and staff cuts (16, or 10%, respondents).

Conclusions: Ukrainian editors continued their work despite severe psychological difficulties and financial dependency. The editors expect greater support from the international community and suggestions on practical strategies to deal with the challenges without significant losses. Continuing surveys to identify problems arising from the changing conditions were also recommended.

Keywords:

Academic publishing, editorial office, impact of war, peer review journal, science editor, scientific journals

Introduction

Any war is a great challenge to all people in the affected region and beyond, and science editors are no exception because their work includes dealing with the authors and reviewers who are also affected by the war.

The modern world seems to be quite turbulent lately, with a plethora of challenges confronting people all over the world. For the last 2 years, many publications have been devoted to the study of the impact of extreme conditions caused by the coronavirus disease 2019 (COVID-19) pandemic on the productivity and quality of scientific research, the mental health of scholars, and the organization of work in editorial offices of scientific periodicals.¹⁻³

Russia's war against the Ukrainian people has become a much worse and even greater challenge for the editors of scientific journals and science editors. Thousands of Ukrainians have lost their relatives, and millions of Ukrainians were forced to leave their homes and seek refuge abroad. Those who remained in Ukraine are slowly getting used to living and working under conditions of constant danger and daily air strikes and threats of bombing.

The main aim of our research was to collect and analyse data on how – and to what extent – the war has changed the operation and daily lives of those who work in editorial services. The research comprised a questionnaire survey and was aimed at four specific objectives

1. To identify structural and organizational changes in the work of editors during the war
2. To assess the impact of the war on business models and financial conditions of editors of scientific periodicals
3. To describe the emotional state of editors of Ukrainian journals working under martial law
4. To determine the level of involvement of editors of scientific periodicals in Ukrainian and international associations of editors and clarify the financial, mentoring, and other needs of those editors

Answers to these questions will help us to identify a range of issues and to find effective ways to support the editors of scientific journals affected by the war in Ukraine.

Methods

The target population and the survey population

As of 1 August 2022, the electronic register maintained by the state scientific institution, namely the Ukrainian Institute of Scientific and Technical Expertise and Information, showed a total of 2022 scholarly journals. Ukrainian legislation divides all Ukrainian scholarly journals into three categories: all the journals indexed in WoS or Scopus databases form Category A; all the remaining academic journals form Category B; and all the non-academic journals form Category C. For the purpose of our research, we created a database of journals from the first two categories: 157 from Category A (as on 4 February 2023 in WoS/Scopus websites) and 1290 from Category B, giving a total of 1447 journals.

Next, on the basis of information publicly available from the websites of these journals, we created a database on emails of their editors. This database comprised 1355 records, one for each journal (Emails of editors of the remaining 92 journals were not available).

The number of journals that ceased publication during wartime remains uncertain. However, from the answers we received, we learnt that three journals had suspended their operations and one journal had closed down. Although the questionnaire featured no direct questions about whether the journal

had suspended publication or was closed down due to the war or during wartime, the respondents shared this information as part of the response to the question about major changes.

Out of the questionnaire emailed to each of the 1355 journals, 160 were returned (a response rate of 13.2%). The responding journals formed the survey population and the basis for the sample frame. Among these, 37 journals were indexed in WoS/Scopus and 59 in *Directory of Open Access Journals*.

The survey provides a snapshot of Ukrainian respondents who, as of 24 February 2022, were members of the editorial boards of at least one scientific journal published from Ukraine.

Survey design and procedure

Maryna Zhenchenko and Iryna Izarova designed the questionnaire using Google Forms. The questionnaire, comprising a total of 27 questions, consisted mostly of close-ended questions and partly close-ended questions. The main questionnaire was to be completed anonymously, and no information was sought on the gender, age, or nationality of the respondent. The responses, not in any particular order, were divided into seven sections.

The first part of the survey included a covering letter that introduced the respondent to the survey and a form for respondents to confirm their consent to participate in the survey as suggested by Gaur et al.,⁴ who recommend that a cover letter should include 'the purpose of the survey, and details of those who are conducting it, including contact details in case clarifications are desired'.

The second part (six questions) sought a few details about the participant, namely the position (designation or job title), the form of cooperation with the scientific journal, the region of Ukraine in which the participant

lived before the start of the war, and the place of residence after 24 February 2022.

The third part (six questions) sought a few details about the journal such as its founder and publisher, business model, and subject area.

The fourth part (five questions) served to know the participant's experiences related to working in the editorial offices during the war: changes in working conditions and salaries, approaches to the formation of issues, the level of moral and material support for the participant's work as an editor, etc.

The fifth part (five questions) included questions about the participant's emotional state during the war (the participants were asked to select from a list of difficult events or stressful situations experienced by editors or their family members since the beginning of the war) to identify the feelings and experiences related to the war and ways to overcome stress.

The sixth part (five questions) was devoted to assessing the level of involvement of the participant in international and Ukrainian professional editorial communities (using a scale similar to the Likert scale), as well as to determining the needs – related to support during wartime in terms of finance, mentoring, etc. – of Ukrainian editorial offices of scientific journals.

The last, namely *the seventh*, part of the survey sought the participant's consent to processing of personal data shared through the questionnaire in accordance with the relevant Ukrainian legislation and also included a separate field, which was optional, for the participants to add their email if they were interested in cooperating with the Ukrainian chapter of EASE, the European Association of Scientific Editors, and wished to be informed of the results of the survey. The promise to share the results with all the interested participants is to some extent a 'social validation'

as explained in Dillman's tailored design method.⁵

Survey dissemination and sample frame

The questionnaire was distributed over roughly 3 months (from 25 May to 20 August 2022) in two stages.

The first stage covered emails sent out during 25–27 May 2022 to 1355 records from the email database of scientific journals. Of these, 143 emails bounced, and three editors responded with a request that their email addresses be removed from the mailing list because they did not want to participate. This left us with editors of 1209 scientific journals from Ukraine as potential participants in the survey.

To increase the level of trust in our mailing and to spread information about the Ukrainian regional chapter of EASE more widely, the invitations were emailed using the institutional email of Maryna Zhenchenko. In the covering letter, the affiliations of the developers of the questionnaire were given by Maryna Zhenchenko and Iryna Izarova as, respectively, the Taras Shevchenko National University of Kyiv and the Ukrainian regional chapter of EASE.

Interim results of this survey (91 answers or 7.5% of all the responses) were presented by Iryna Izarova at the 16th EASE General Assembly and Conference (Valencia, Spain, 24–26 June 2022).⁶

The second stage covered emails sent during 7–10 August 2022: the questionnaire was resent to 1209 potential participants. This effort nearly doubled the number of responses. Overall, out of the 1211 invitations sent, we received answers to 160, a response rate of 13.2%.

Although the response rate was low – after all, it was wartime – we believe that the results of the survey are relevant. It is only to be expected that participating in the survey was not a

priority to the editors given their psychological state and material hardships. Also, other factors such as limited or erratic access to the internet and lack of safety must have limited the number of participants even more. The error rate of the representativeness of the study was 7.2% (at a confidence level of 95%).

Statistical analysis

Data organization

The responses were downloaded from the website of Google Docs in the form of a spreadsheet (Excel). The responses in the form of free text were grouped on the basis of similarity to or association between concepts. For example, editors who indicated that they were university lecturers but also working for a scientific journal in their free time were categorized as working part time.

Data analysis

Descriptive statistics were used for data visualization by presenting the data in the form of tables and graphs to facilitate analysis and interpretation.

Results

Among the more important results were changes in the business model of the journals and the financial status of their editors, particularly those in the business model of the editorial office and the form of support from the editorial office. The editors or members of their families were under stress, which manifested itself through varied feelings and experiences, and learnt how to deal with it. Although under immense pressure, they are steadfast in pursuing their goal, namely to continue working to publish and disseminate the results of research.

Characteristics of participants

All 160 participants gave their consent to processing the data supplied by them.

Table 1. Characteristics of participants

Characteristics	No. of participants (%)
Subject areas of science journals^a	
Technology	40 (25.0%)
Economics	20 (12.5%)
Biological sciences	18 (11.3%)
Physics and mathematics	17 (10.6%)
Pedagogy	16 (10.0%)
History	16 (10.0%)
Medicine	14 (8.8%)
Agriculture	13 (5.0%)
Earth and planetary sciences	12 (7.5%)
Chemistry	9 (5.6%)
Philology	8 (5.0%)
Law	8 (5.0%)
Arts	7 (4.4%)
Social communication	7 (4.4%)
Public administration	7 (4.4%)
Philosophy of science	6 (3.8%)
Psychology	6 (3.8%)
Culture	4 (2.5%)
Veterinary medicine	3 (1.9%)
Location of respondents before the war	
Kyiv, the capital of Ukraine	61 (38.1%)
Eastern Ukraine	30 (18.8%)
Western Ukraine	29 (18.1%)
Central Ukraine	27 (16.9%)
Southern Ukraine	12 (7.5%)
Northern Ukraine	1 (0.6%)
Founders and publishers of journals	
State universities	142 (88.8%)
State scientific institutions	10 (6.3%)
Commercial organizations	5 (3.1%)
Private universities	3 (1.9%)
Positions of respondents in editorial office	
Managing editor	78 (48.7%)
Editor-in-chief	51 (31.9%)
Editor	16 (10%)
Literary editor	4 (2.5%)
Assistant editor	4 (2.5%)
Deputy editor-in-chief	3 (2.0%)
Editor of English texts	1 (0.6%)
Social media editor	1 (0.6%)
Technical editor	1 (0.6%)
Peer reviewer	1 (0.6%)

^aEditors of multidisciplinary journals chose several fields of science, which is why the total exceeds 100%.

The characteristics of participants, which are highlighted later, are presented in Table 1.

Subject areas

A quarter (40 or 25.0%) of all the journals covered technology, followed, in that order, by economics (20 or 12.5%), biological sciences (18 or 11.3%), physics and mathematics (17 or 11.3%), pedagogy (16 or 10.0%), and history (16 or 10.0%).

Founders and publishers

Most of the journals (142 or 88.8%) were founded and published by state universities, followed, in that order, by state scientific institutions (10 or 6.3%), commercial organizations (5 or 3.1%), and private universities (3 or 1.9%).

Location

The participants came from all regions of Ukraine, although the majority (61 or 38.1%) were based in Kyiv, the capital city; the east and west contributed nearly equal shares (30 or 18.8% and 29 or 18.1%, respectively); and the central region accounted for 21 (13.1%). The least represented were the south (12 or 7.5%) and the north (7 or 4.4%) – which is only to be expected because at the time of the survey, these two regions were either under occupation or were recovering after liberation from occupation, and the editors did not always have a stable internet connection to enable them to participate in online surveys.

Positions in the editorial office

Nearly half (78 or 48.7%) of the respondents were managing editors, and 51 (31.9%) were editors-in-chief. Other positions accounted for less than 10% and included the following: literary editor, assistant editor, deputy editor-in-chief, editor of English texts, social media editor, technical editor, and peer reviewer.

Structural and organizational changes in the work of editors during the war

Relocation after 24 February 2022

When asked whether they had left Ukraine, 138 (86.3%) said no whereas the rest (22 or 13.7%) said yes (Table 2). Among the countries in which they had found shelter were Austria Belarus, the Czech Republic, Finland, Germany, Italy, Latvia, Spain, Switzerland, and the United States.

Editors who stayed in Ukraine mostly continued to work in their respective hometowns within Ukraine (105 or 65.7%) although a fifth (33 or 20.6%) had moved to another city or village in Ukraine and worked remotely (Table 2).

Thus, the war forced almost 55% of the surveyed editors to leave their homes, either to go abroad or to move to another city or village in Ukraine. Among those who had moved, the vast majority lived in Kyiv or in eastern Ukraine before the war.

Table 2. Change in location of respondents after 24 February 2022

Location before the war	Location of editors after 24 February 2022 and number of respondents (%)		
	Moved abroad	Moved to another city (village) in Ukraine	Remained in the hometown in Ukraine
Kyiv, the capital of Ukraine	10 (7.5%)	10 (7.5%)	41 (25.6%)
Eastern Ukraine	5 (3.1%)	15 (9.4%)	10 (6.3%)
Western Ukraine	1 (0.6%)	3 (1.9%)	25 (15.6%)
Central Ukraine	3 (1.9%)	2 (1.3%)	16 (10.0%)
Southern Ukraine	1 (0.6%)	1 (0.6%)	10 (6.3%)
Northern Ukraine	2 (1.3%)	2 (1.3%)	3 (1.9%)
Total	22 (13.7%)	33 (20.6%)	105 (65.7%)

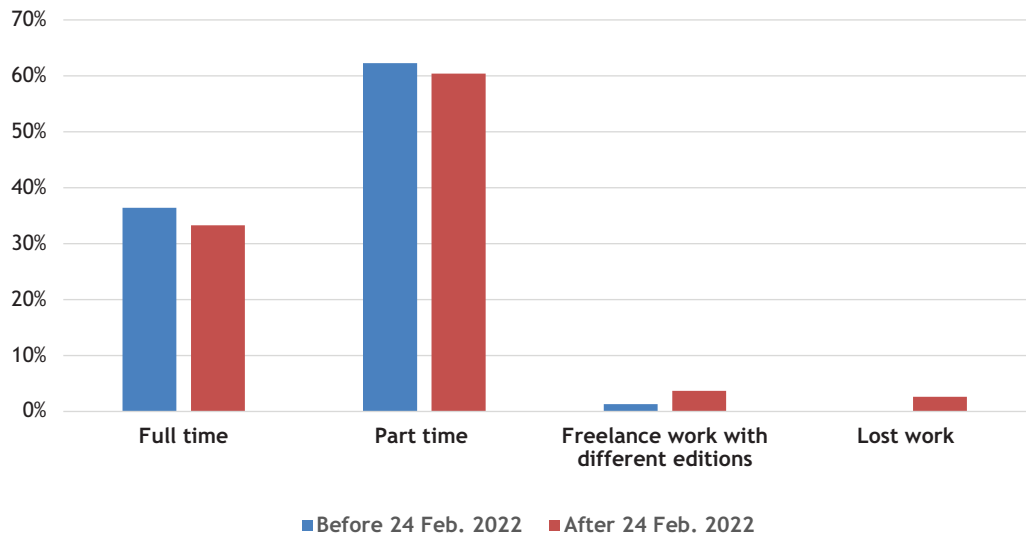


Figure 1. The type of cooperation with the editorial office before and after war.

Nature of cooperation with editorial office

Nearly two-thirds of the respondents (101 or 62.4%) worked part time and a little over a third (58 or 36.3%) worked full time whereas only two (1.3%) worked freelance (Figure 1).

Almost half of the part-time editors were not paid for their editorial work: 37% of the respondents said that they perform their duties as editors on a voluntary basis, and another 10% noted that working as an editor of a scientific journal is considered part of their teaching workload.

The war had little impact on the nature of work although the number of those working full time decreased by 3.1% as some editors switched to part-time work, with a commensurate decrease in remuneration, as a result of funding cuts. Likewise, the number of freelance editors increased by 2.5%. However, 2.5% of the respondents lost their job (the affected editors were from eastern Ukraine) either because their journal had ceased publication or because they had moved abroad (Figure 1).

Structural changes in editorial offices and workflow

When asked whether, and how, the war had affected the work of editorial offices, 12 editors (7.5%) said that it had not, and another 63

(39.4%) said that the changes had not been significant. However, 85 (53.1%) reported significant changes in the structure and workflow. Among the changes were the following (in descending order):

- fewer articles (71 or 44.4%);
- switch to working remotely (38 or 23.8%);
- delays in publication (34 or 21.3%);
- shift in topics of articles, with more studies related to wartime (25 or 15.6%);
- staff cuts (16 or 10%);
- more articles (6 or 3.8%);
- temporary suspension of publication (3 or 1.9%);
- more complicated review process, with a significant number of permanent reviewers finding themselves in the combat zone, which meant it took longer to reach them (2 or 1.3%); and
- closing down (2 or 1.3%).

(The respondents could choose multiple options, which is why the total exceeds 100%).

Changes in the business model of journals and the financial status of editors

Transformation of the business model

More than 90% (147 out of 160) of the journals whose editors had participated in the survey

are open-access journals. In Ukraine, the publication of such journals follows one of the two major business models: the costs of editing and publishing are either paid by the authors or by the journal's founder (publisher).⁷ The models showed a fairly even split, with 77 respondents (48.1%) indicating that their journal followed the first option and 70 (43.8%), the second option.

The war decreased the income levels of the population as a whole significantly, which meant that the authors could not always have the funds to pay for publishing their articles. As a result, nine journals (5.6%) changed their business model and switched from the 'authors pay' model to the 'publisher pays' model to support scientists, the publisher in most cases being a university.

Many answers from individual respondents clearly demonstrate the unity of Ukrainians and their willingness to extend mutual assistance in the fight against Russian aggression, as evident in the following two quotations from the responses: 'We make a free issue to support our scientists' or 'We are looking for opportunities to reduce or cancel payment for authors from the territories affected by the war'.

Impact on the financial status of editors

When asked whether, and how, the war had affected their financial status, most (89.9%) answered that their financial status had remained unchanged. However, it meant that they may continue to work either without actually receiving a salary or receive the same salary, which, given the devaluation of the national currency, implied that they were worse off than before. The rest 10% of the respondents reported staff cuts and reduced salaries. Many said that they received no remuneration before the war and that status remained unchanged. However, some were happy that they received financial support from other countries. Another 44 (27.5%)

emphasized that they work voluntarily and do not receive a salary.

To the question 'How, in your opinion, will your financial situation change during the next 6 months?' 75 editors (46.9%) answered that they expected the situation to be only slightly worse; another 61 (38.1%) were less optimistic and chose the answer 'It will get worse'; 18 respondents (11.2%) expected no change; and 6 (3.8%) even expected a slight improvement (Figure 2). It is noteworthy that none chose the option 'Will improve significantly'.

Form of support from editorial office

We asked whether the editorial office provided financial or moral support to the staff: 5% of the respondents received some financial help and 2.5% received some moral help. However, the majority (55.6%) said they received no special support, with 43.4% happy merely to receive their salary on time, and 15 (9.4%) identified as a kind of support the fact that their editorial office continued to pay them a salary even during forced breaks in work. Another 44 (27.5%) emphasized that they work voluntarily and do not receive a salary.

Impact on mental health

Sources of stress

The following stressful and difficult situations were reported (in descending order; the total exceed 100% because multiple answers were allowed):

- conflict or disruption of relationships with relatives from the aggressor state (36 or 22.5%);
- family members enrolled in military forces of Ukraine (23 or 14.4%);
- illness (15 or 9.4%);
- damage to home or living quarters (12 or 7.5%; respondents mainly from Kyiv and eastern Ukraine);

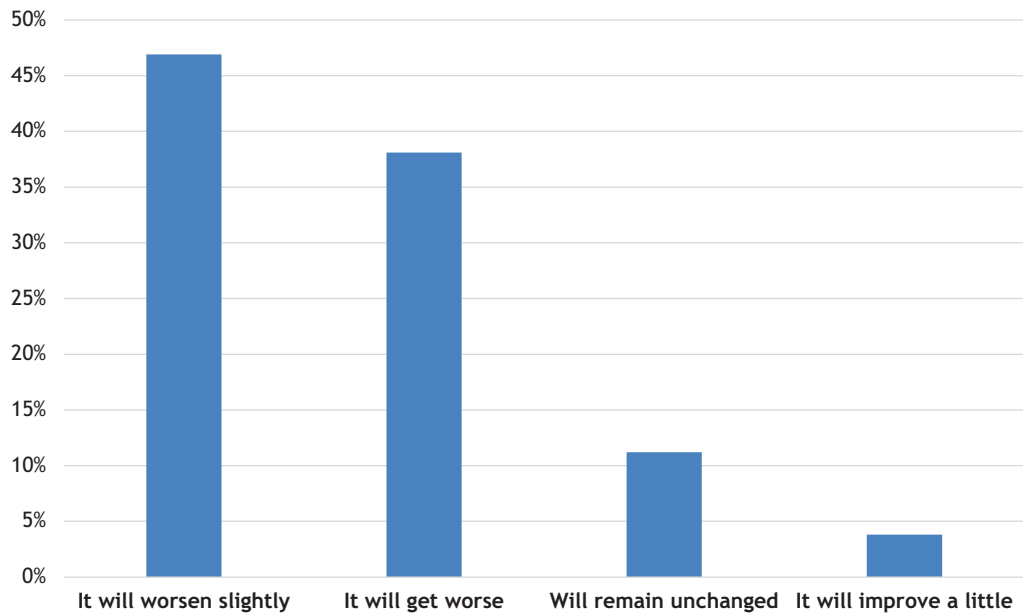


Figure 2. Answers to the question: ‘How do you think your financial situation will change in the next 6 months?’

- death of relatives or close friends (11 or 6.9%);
- loss of home or living quarters (6 or 3.8%); and
- loss of work (5 or 3.1%).

Degree of stress and other adverse experiences

Asked whether the respondents considered themselves to be under too much stress, more than half (106 or 66%) said yes and a third of respondents (54 or 34%) said no.

Asked to choose from a list of emotions and experiences caused by the war, most of the respondents chose among the negative options: ‘Fatigue from uncertainty, emotional devastation’ (70 or 43.8%); ‘A persistent feeling of the unreality of what is happening’ (57 or 35.6%); and ‘Rapid fatigue, loss of physical strength’ (46 or 28.7%) (Table 3).

Almost 14% of respondents admitted to feelings of apathy and loss of interest in life

Table 3. Feelings and experiences of editors as a result of war

No.	What do you feel about the war in Ukraine	Number of respondents (%)
1	Belief in a better future, expectation of positive changes in life	79 (49.4%)
2	Fatigue from uncertainty, emotional devastation	70 (43.8%)
3	A constant feeling of the unreality of what is happening	57 (35.6%)
4	Rapid fatigue, loss of physical strength	46 (28.7%)
5	Frequent change of emotions, mood swings, increased vulnerability	37 (23.1%)
6	Difficulty concentrating, memory impairment	34 (21.3%)
7	A feeling of helplessness, powerlessness, despair	32 (20.01%)
8	Constant thoughts about what you could have done but didn't	28 (17.5%)
9	A constant feeling of ‘life at the station’	25 (15.6%)
10	Apathy, decreased interest in life	22 (13.8%)
11	Reluctance to communicate with people, seeking solitude	20 (12.5%)
12	Loneliness, feeling of abandonment, uselessness	16 (10.0%)
13	Lack of desire and strength to live on	5 (3.1%)

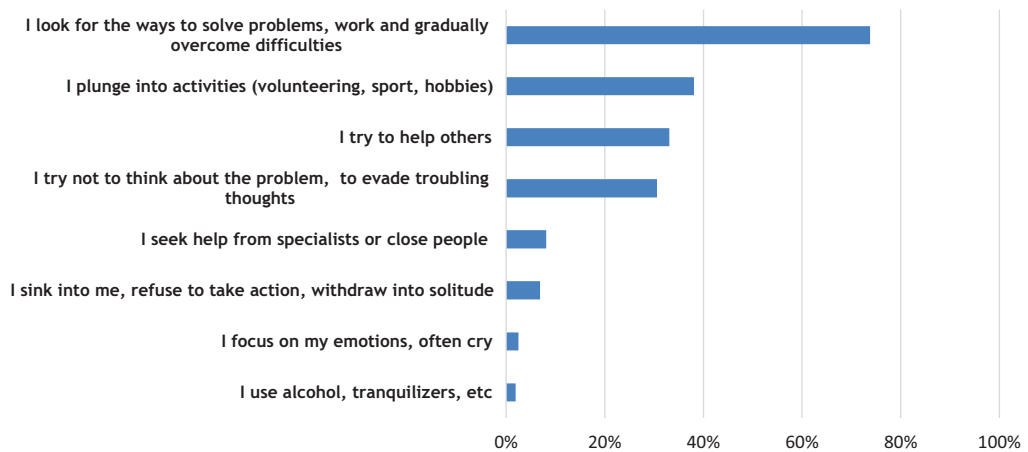


Figure 3. Answers to the question ‘What do you do to overcome stress and restore psychological balance?’

and 3.1% to a lack of desire and strength to continue living.

Despite being in poor psychological health, about 50% of the respondents chose the answer ‘Faith in a better future, expectation of positive changes in life’ (see Table 1). Among the comments included under the choice ‘Other’ were the following: ‘Increased responsibility for the results of all types of work, concern for men in the assault regiment of the armed forces of Ukraine’, ‘A feeling of exhaustion from constant work without days off and normal rest, but there is faith in victory and armed forces!’ ‘Steady disgust for the occupiers and faith in victory’, and ‘Determination to continue fighting and the conviction that it will be won’.

Dealing with stress

To restore psychological health and relieve stress, the respondents followed many productive practices; for example, they looked for ways to solve problems, continue working, and gradually overcome difficulties (118 or 73.8%); immersed themselves into other activities (volunteering, sports, hobbies, etc.) (61 or 38.1%); and tried to help others (53 or 33.1%).

Only 19 respondents chose answers that pointed to severe psychological problems, as seen in the following responses: ‘I focus

on my emotions, often cry’ (11 or 6.9%); ‘I withdraw into myself, refuse to take action, withdraw into solitude’ (5 or 3.1%); and 3 (1.9 %); ‘I use alcohol and tranquilizers’ (3 or 1.9%) (Figure 3).

Asked to choose from a list of emotions and experiences caused by the war, almost half of the respondents chose the answers ‘I feel tired of uncertainty, emotional devastation’ and ‘I believe in a better future and expect positive changes’.

Involvement in Ukrainian and international editorial associations and the need to support foreign colleagues

Only 13 respondents (8.1%) were members of Ukrainian Editors’ Associations; 7 (4.4%), of EASE; and 3 (1.9%), of some other associations, especially the International Society of Managing and Technical Editors, Ukrainian Library Association, and Ukrainian Council of Science Editors. However, when asked to indicate their level of participation, using a scale similar to the Likert scale, 23.1% of the respondents chose the answer ‘No, but considered’ with respect to joining the Ukrainian Editors’ Associations and 19.4%, to joining EASE.

With respect to international support for Ukrainian scientists, 47 (29.4%) respondents said that they received help from international collaboration, 81 (50.6%) did not seek

such support, and 32 (20%) said they had asked for support but did not receive it.

With respect to the form of support from international organizations, the Ukrainian editors expected invitations to participate in joint scientific projects (110 or 68.8%), financial support (96 or 60%), and the possibility of internships with foreign editors and publishers of scientific periodicals (65 or 40.6%).

The majority of editors belonged neither to the Ukrainian editorial community nor to any international editorial community; however, about 20% of the respondents expressed a desire to belong to one.

The respondents seemed not to be aware of the possibility of receiving international support from editorial offices of scientific periodicals (more than 50% did not even seek any help). Others expected not monetary support to continue publishing but support in terms of mentoring and, in particular, invitations to participate in joint scientific projects and internships for professional development.

Discussion

During the past year (2022/23), Ukraine has been subjected to extreme violence, stress, other forms of suffering, and loss of life and property. The majority of Ukrainian journals are in-house journals, which means they are financially dependent on the universities that have suffered greatly during the war and need a long period of recovery. The war has also meant greater pressure on editors to maintain high standards of academic publishing including timely publication (despite many authors and reviewers being temporarily displaced or serving in the military) and safekeeping of archives, servers, and repositories.

Unfortunately, the experience of Ukrainian science editors in continuing to work during a crisis is not unique, and we can draw some

parallels from other countries. 'We witnessed enormous suffering of the civilian population: refuge, injury and death, siege, and destruction of many Croatian towns', remembered the editors of *Croatian Medical Journal* who survived the tragic aggression against Croatia in 1991.⁸

A few organizational and structural changes in the work of editorial offices of scientific journals, in particular the transition to remote work and online management, began during the COVID-19 pandemic. These changes are described in the following articles: 'Changing the editorial process at JCI and JCI insight in response to the COVID-19 pandemic',¹ 'Publishing in the time of COVID-19',² and 'The impact of the COVID-19 pandemic on scientific editing',³ as seen from the following quotations: 'People are working from home while worrying about their family, friends and colleagues, both near and far'² and 'Our weekly roundtable editorial board meetings have been converted into video meetings'.¹ However, the present war has had a more destructive and profound impact on the structure of editorial offices and the organization of editorial work: some Ukrainian journals were closed down; many could not maintain their publication schedules; and some had their staff strength significantly reduced. To quote the editors of the *Croatian Medical Journal*, 'A number of editorial board meetings have been held during the wartime: a few members had to travel through battle zones to attend, and one of the meetings was held during an air-raid alert'.⁴ These editors also describe how they worked at the time of the tragic invasion of Croatia in 1991. Some Ukrainian editors in the present survey also wrote about meetings of editorial boards in bomb shelters.

Whereas the COVID-19 pandemic led to an increase in the number of articles, especially in medical journals,^{1,2} the Russian aggression

in Ukraine led to a significant decrease in the number of articles. The difference is explained by the fact that Ukrainian scientists have had to work under inhospitable conditions as a result of the occupation of, and constant missile attacks on, Ukraine. The topics of the articles also changed, with more and more of the published studies related to the war in Ukraine.⁹ Some journals even published special issues related to the war in Ukraine with a focus on supporting Ukrainian researchers and authors.^{10–12}

More than 50% of the surveyed editors noted various structural and organizational changes, particularly the following: cuts in editorial staff, switch to part-time working with a corresponding decrease in salary, delays in publishing, fewer articles, and marked changes in the topics of articles (more articles on the development of various fields of science under war-time conditions). At the same time, only five respondents (3.2%) reported temporary suspension of publishing or ceased publication. Thus, even in extremely difficult conditions, often without pay (47% of the respondents worked either as volunteers or treated their work related to editing or publishing as part of their work as university teachers), Ukrainian editors continue to perform their work and maintain its quality in the face of psychological and financial difficulties.

Discussions of the impact of war on the media have been a focus of attention for a long time, which is not surprising given the increasing number of armed conflicts around the world. The psychological facet of the problem is discussed mostly in connection with the work of war correspondents. However, some of the findings can be extrapolated to the experience of editors who work in hazardous environments. The researchers' opinions on the issue of trauma are divided into those that declare the traumatic experience as 'past and finite'^{13,14} and those that emphasize

continued traumatic stress.¹⁵ Charles¹⁵ studied the experience of war correspondents who live under conditions of protracted violence and showed that the correspondents reported feelings of self-doubt, mistrust, loneliness and professional isolation, powerlessness, and helplessness, and other researchers have reported vulnerability¹⁶ and self-censorship.¹⁷ Even more relevant to the present study is the work of Kira et al.,¹⁸ who found that living under conditions of war can lead to collective identity trauma. This finding is partly in line with the results of our poll because more than half of the editors of Ukrainian scientific journals reported that they were under too much stress; however, 49.4% also chose the options 'Belief in a better future' and 'Expectation of positive changes in life' among the options on offer to indicate how they felt. Similar results were obtained in the process of researching psychological markers of war. Strategies for adapting to stressful situations, levels of vitality, and psychological exhaustion were among the topics studied as part of the eighth wave of the project 'Ukraine in conditions of war' by the sociological group rating. The authors of this study reported that nearly 50% of the respondents rated their emotional state as very tense or tense, and only 8% said they were calm whereas before the war the proportion of respondents choosing this option had been 22–26% and that constructive strategies of behaviour in difficult life circumstances were characteristic of 63% of the respondents.¹⁹

We should also keep in mind the significant efforts made by the communities of editors and of scientists to support Ukrainian editors during the war. As an example, we may draw attention to the statement published by EASE.²⁰ It is also worth mentioning the projects 'Science for Ukraine'²¹ and 'Supporting Ukrainian Editorial Staff',²² and the statement published by Editors Canada in support of

Ukraine.²³ A few journals have also published statements declaring their support for Ukraine and Ukrainian authors.^{24,25}

However, these initiatives can be regarded as the initial quick and emotional reaction in support of Ukrainian researchers and editors: future and more permanent and considered support should be based on objective studies.

To conclude, we suggest that some additional practical recommendations be made by the international community for the editors who work under the trying circumstances of war to help them cope without significant losses. These suggestions should show how to manage editorial staff during the war, how to help them, how to solve conflicts or – better yet – how to prevent them, how to avoid bias, and how to keep journals running.

Consolidation of efforts may help such editors to continue to work efficiently in the face of problems and suffering.

As situations evolve, similar surveys should be continued for identifying emerging problems. We discovered many problems hitherto unknown to the community and sought ways of solving them by examining the period of war and the most difficult post-war period of renovation in Ukraine with the hope that our main aim would be achieved: to retain high-quality human resources and to develop international standards of scholarly publishing in Ukraine.

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