
RESEARCH ARTICLES
ДОСЛІДНИЦЬКІ СТАТТІ

Media Trust Among University Students During the COVID-19 Pandemic in Ukraine

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ABSTRACT

The worldwide pandemic exacerbated the new role of the media. If previously the discussion was on whether new or traditional media had primacy in popularity and exposure, nowadays the question is whether communicating health issues through social and traditional media leads to a better understanding of their content and more trust in both types of media. We surveyed Ukrainian university students to examine their attitude towards information on coronavirus presented in the media. Results showed that although students generally prefer to use Internet news, trust in traditional media increased during the pandemic. Furthermore, we examined a general psychological portrait of young people derived from trust in the media. In the group of students who trust media information, we found indifference (39% of respondents) and helplessness (24.4%). In the group, convinced that the media were hiding the actual situation, anger prevailed (32.4%). The third group, confident that the media exaggerate everything, experienced indifference, and anger (38.5% and 32.7%, respectively). We may conclude that desire to learn more accurate and unbiased information firsthand indicates students' attitude towards traditional media as more reliable sources of information in Ukraine.

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АНОТАЦІЯ

Всесвітня пандемія посилила нову роль ЗМІ. Якщо раніше дискусія велася про те, чи нові або традиційні медіа мають першість у популярності та охопленні, то сьогодні питання полягає в тому, чи веде повідомлення про проблеми здоров'я через соціальні та традиційні медіа до кращого розуміння їхнього змісту та до більшої довіри до обох типів медіа. Ми опитали студентів університету, щоб перевірити ставлення до інформації про коронавірус, яка подається в ЗМІ. Результати показали, що хоча студенти загалом віддають перевагу новинам в Інтернеті, довіра до традиційних медіа зросла під час пандемії. Ми розглянули загальний психологічний портрет молодих людей, складений на основі довіри до ЗМІ. У групі студентів, які довіряють інформації ЗМІ, ми виявили байдужість (39% респондентів) та безпорадність (24,4%). У групі переконаних, що ЗМІ приховують реальний стан речей, переважав гнів (32,4%). Третя група, яка впевнена, що ЗМІ все перебільшують, відчула байдужість і гнів (38,5% і 32,7% відповідно). Можна зробити висновок, що прагнення дізнатися більш достовірну та неупереджену інформацію з перших вуст свідчить про ставлення студентів до традиційних ЗМІ як до більш надійних джерел інформації в Україні.

КЛЮЧОВІ СЛОВА: довіра до медіа, COVID-19, пандемія, тривожність, стрес.

Introduction

The global pandemic of COVID-19 killed almost 6,5 million people worldwide (WHO, data of 12.09.2022). Against this statistic, Ukraine occupies the 17th position worldwide for deaths and the 22nd for confirmed cases (<https://covid19.who.int/table>). The pandemic emphasized the importance of the media in timely informing the people about health, the measures taken, and the impact on the psychological state of the audience. Besides, the pandemic pointed to the "dark" side of the information space - a potent stress factor and a platform for the dissemination of unverified, false information (Anwar et al., 2020; Basch et al., 2020; Cuello-Garcia, Pérez-Gaxiola, & van Amelsvoort, 2020; Dhanani & Franz, 2020; Garcia & Duarte, 2020; Moscadelli et al., 2020; Srivastava et al., 2020; Stainback, Hearne, & Trieu, 2020; Vai et al., 2020; van der Linden, Roozenbeek, & Compton, 2020). In response to the pandemic, the media aims to achieve three critical public health outcomes: knowledge generation, attitudes towards the virus, and medical literacy (Dhanani & Franz, 2020).

The World Health Organization (WHO), with the help of the media, ensured rapid and widespread dissemination of information on public health. On the other hand, news about the coronavirus during the repeatedly extended quarantine caused fear and psychological stress (Anwar et al., 2020). News content in the first months of the epidemic (January-February 2020) caused mostly negative emotions - topics of death dominated the video news, the mortality rate (43.6%), as well as fears and concerns associated with the outbreak of COVID-19 (37.4 %) (Basch et al., 2020). The pandemic has upended almost every aspect of public life. People are turning to the news for updated information on the virus. The corresponding increase in awareness of COVID-19 and the perception of the threat of COVID-19 leads to psychological stress (Stainback, Hearne, & Trieu, 2020).

According to the World Economic Forum (Hall, 2020), staying at home during isolation has expectedly changed consumer behavior and increased the frequency of interaction with social media and the time spent watching television (TV shows, films). However, the very interaction with social media and dependence on television during the pandemic are not directly determined by the adaptive characteristics of the personality profile: maladaptive, adaptive, and highly adaptive (Ahmed et al., 2021). This finding raises the question of how personality affects human behavior when the media have become the primary source of information. Age, education, and economic level determine the higher level of search for information on television, in newspapers, on the internet, and in news agencies (Geçer, Yıldırım, & Akgül, 2020). People with medium and high economic status watched more TV and read more newspapers. Women preferred to receive

information more from friends, family, and social media than men (Geçer, Yıldırım, & Akgül, 2020).

Tree NGOs in Ukraine provide in-depth reviews of the media situation in Ukraine. Razumkov Sociological Center, Kucheriv Foundation "Democratic Initiatives", and Detector Media conducted a comprehensive study of how media exposure and trust evolved over several years. Moreover, this study shows which media behavior people demonstrated during the strongest waves of the COVID-19 pandemic.

<https://razumkov.org.ua/napriamky/sotsiologichni-doslidzhennia/yak-zminylis-upodobannia-ta-interesy-ukraintsiv-do-zasobiv-masovoi-informatsii-pislia-vyboriv-2019r-ta-pochatku-pandemii-covid19-serpen-2020>

According to this study, among all the media sources, the most popular in Ukraine in 2020 is television (75%). Next are social media (44%); 23% of people regularly get information from their relatives and friends. 11% prefer messengers (Viber, Telegram, Messenger) as reliable media sources to learn about what is happening in Ukraine and the world; 6% of Ukrainians regularly watched Russian TV, notwithstanding the Russian war against Ukraine that started in 2014 with the occupation of Crimea and areas in Donetsk and Luhansk regions. 4% of Ukrainians read and trust Ukrainian print media. And less than 1% of people in Ukraine trust Russian print media and the media of occupied areas in Luhansk and Donetsk region, so-called "Donetsk People's Republic" and "Luhansk People's Republic".

Political views have also proven to be a determinant of behavior during the pandemic. The group's study by Erfei Zhao assessed the preventive and risky behavior associated with COVID-19 infection in the early months of the pandemic, depending on trust in different media sources. Based on trust in left-wing or right-wing media, scholars identified three groups: (1) those who trust CNN more than Fox News; (2) those with the same preferences or not; and (3) those who trust Fox News more than CNN. Fewer preventive measures and more risky behaviors associated with COVID-19 have been characteristic of people on the conservative, right-wing spectrum, who rely on a more right-wing source of information (Fox News) (Zhao et al., 2020). In China, compliance with established rules of conduct is associated with preference and trust in central state media and WeChat. At the same time, the propensity to use local media and the social network Weibo negatively affected compliance with restrictive measures (Wu & Shen, 2021). The state-controlled media's impact on behavior during the COVID-19 pandemic is associated with the attitude of the population to the authorities (Pajnik & Hrzenjak, 2022). An online survey of the Slovenian adult population found a statistically significant correlation between compliance with COVID-19 control measures and trust in the government (Hafner-Fink & Uhan, 2021).

One of the first online surveys conducted in China on January 28, 2020, a week after the official announcement of the human-to-human transmission of the coronavirus, highlighted the impact of the media on the psychological state during the early stages of the outbreak. Content with stressful information (reports from hospitals, information about the deteriorating situation, the spread of infection) negatively impacted and led to concern, anxiety, and depression. This negative effect was mainly due not to traditional media but to the new media (Chao et al., 2020). The dissemination of information about COVID-19 on social media (Twitter, Instagram, YouTube, Reddit, and Gab) from reliable and dubious sources do not differ in the way or scheme. However, fake news and inaccurate information can spread faster and broader than news based on evidence (Cinelli et al., 2020).

During the worldwide pandemic, a large amount of false, misleading information in the media about the virus, pseudo-drugs, and conspiracy theories ("infodemic") pose a threat to public health (van der Linden, Roozenbeek, & Compton, 2020). As a result, fragmentation of social responses, accelerating the contagion process, altering the effectiveness of government countermeasures (Cinelli et al., 2020), and discouraging preventive measures (Su, 2020). For example, the number of articles with "fake news" reached 23.1% of Italy's total publications on the pandemic from December 31, 2019, to April 30, 2020 (Moscadelli et al., 2020).

Among the reasons for the growth of false information in social media, we can assume the dominance of the user's personality, his / her preferences, and psychological characteristics. Social media and microblogging platforms have radically changed how we consume information and form opinions. Social media users (e.g., Facebook) have become cosmopolitan in the information space (Schmidt et al., 2017). The polarization of social media users prompted the placement of misinformation (Schmidt et al., 2017). Likewise, support for disinformation decreases among people as knowledge and awareness grow (Dhanani & Franz, 2020). Overusing social media during the pandemic has led to increased concern and depression associated with fear of COVID-19 (Majeed et al., 2020). A vital buffer that protects against the negative consequences of using social media is the user's awareness of what COVID-19 is and its impact on humans (Majeed et al., 2020).

Social media exert a significant impact due to its growing influence. With billions of people worldwide using social media, frequent misinformation about the current pandemic on these platforms could have serious consequences (Cuello-Garcia, Pérez-Gaxiola, & van Amelsvoort, 2020). Brazil's primary fake news sources are primarily social media – WhatsApp, Facebook, and Instagram (Garcia, & Duarte, 2020). A Spanish study found that social media and instant messaging systems transmit mainly false news. This "primacy" is due to decreased confidence in the media and the fact that they are no longer considered reliable (Fernández-Torres, Almansa-Martínez, & Chamizo-Sánchez, 2021). Motivating social media users to share information, communicate, and search for information contributes to the spread of false information about COVID-19 (Apuke & Omar, 2020).

Furthermore, social media during a pandemic is associated with more pronounced psychological stress (Bendau et al., 2021). A group of Spanish researchers led by Bonifacio Sandín found that exposure to social media and intolerance to uncertainty are strong predictors of emotional impact, development of fear of coronavirus, and emotional disturbances (anxiety, distress, hopelessness, depression, concern, etc.) (Sandín et al., 2020). During the pandemic, an interesting phenomenon was noted in Italy that distinguishes it from other countries – the trust in social media was lower than in the official websites of health organizations (Vai et al., 2020). In Spain, in the first weeks of quarantine in March 2020, television became the most used medium of information about the virus while restoring its audience among the youngest people who seemed to favor digital media (Blasco, Castella, & Raso, 2020). According to Ofcom, the UK saw a 30% increase in TV and online viewing during the first quarantine – an average of more than six hours of daily TV and online video content. (Lockdown leads to a surge in TV screen time and streaming. August 05, 2020, <https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/lockdown-leads-to-surge-in-tv-screen-time-and-streaming>).

Fake news, misinformation, and rumors spreading through digital media may lead to panic, anxiety, and fear and increase the risk of mental illness (Srivastava et al., 2020). Beliefs generated by disinformation influence the choice of coping strategy during a pandemic (Su, 2020) – misinformation about side effects becomes a deterrent to the provision of COVID-19 vaccination among healthcare workers themselves (Marco-Franco et al., 2020).

Misleading information and misinformation about the COVID-19 pandemic are becoming additional factors leading to increased societal uncertainty (Su, 2020). An increase in anxiety due to intolerance to uncertainty in a pandemic increases the likelihood of misperception of information, reducing the ability to evaluate it critically (Su, 2020). In addition, intolerance of uncertainty contributes to stress and burnout (Kim, & Lee, 2018).

Scholars established a direct link between anxiety and depressive disorders and the frequency of viewing information programs on the incidence of coronavirus (Gao et al., 2020; Bendau et al., 2021). Higher anxiety levels are more likely to be reported by those who spend more than one hour a day searching for information about COVID-19 (Keckojevic et al., 2020). There is a direct link between the number of symptoms of depression, unspecific anxiety, COVID-19-related anxiety, and the frequency and variety of interactions with the media (Bendau et al., 2021). Ac-

ording to a study conducted by the German group of A. Bendau, the critical threshold between mild to moderate symptoms of (unspecific) anxiety and depression is seven daily media visits for a total of 2.5 hours (Bendau et al., 2021). Limited mental resources for overcoming problems during a pandemic tend to end, and people start to avoid or ignore stress-inducing information (Vasheka et al., 2021). Trust in news sources reduces somatization and increases anxiety about COVID-19 (Kecojevic et al., 2020).

People are susceptible to conspiracy thinking and are prone to self-deception (Seitz et al., 2020). The ability to detect truthfulness, misinformation, and fake news is associated with emotional intelligence and educational attainment (Preston et al., 2021). Confidence in COVID-19 disinformation declines as media literacy rises and critical thinking develops (Austin, Borah, & Domgaard, 2021). The propensity for thinking, along with personal anxiety, lead to increased anxiety about COVID-19. The latter, together with weak support for unconfirmed, inaccurate information, and beliefs about COVID-19, lead to more responsible behavior during the pandemic (Erceg, Ružojčić, & Galić, 2020).

The perception and response to information in contexts of uncertainty during an epidemic largely depend on such personality characteristics as intolerance of uncertainty (Maftei & Holman, 2020). Increased anxiety resulting from intolerance to uncertainty in a pandemic increases the likelihood of misperception of information and reduces the ability to critically evaluate it (Su, 2020). Therefore, uncertain situations are perceived as a source of threat (Pogorilska et al., 2021). Furthermore, intolerance of uncertainty contributes to stress and burnout (Kim & Lee, 2018). Burnout negatively affects information perception and emotional evaluation (Havrylets et al., 2019). Besides, the tolerance to uncertainty with the emotional experience defines the attitude toward novelty and complexity, which determines the response to life changes caused COVID-19 pandemic (Pogorilska et al., 2021).

The controversial attitude towards the epidemic and preventive measures in society lead to conspiracy theories (Romer & Jamieson, 2020). The main psychological goals of conspiracy theories are to explain what is happening in terms that are understandable and acceptable to a person, to give a sense of control, and to give a sense of one's significance and meaning in life. Conspiracy theories have become more and more popular during the pandemic. A seminal historical-psychological study by van Prooijen and Douglas has shown that societal crises are conducive to the emergence and spread of conspiracy theories (Van Prooijen & Douglas, 2017).

Conspiracy theories during the COVID-19 pandemic are fertile soil for genetically determined anxiety, personal impotence, a sense of socio-economic consequences, complex causes, and inadequate solutions, as well as modern means of communication (Förstl, 2020). A study by Šrol and colleagues in Slovakia showed that support for virus conspiracy theories developed partly due to mistrust of government responses in the early stages of the COVID-19 pandemic. Increased anxiety and lack of control also increased the sense of danger and risk of COVID-19 (Šrol, Mikušková, & Cavojova, 2021). Conspiracy theories undermine concerted action, distort open discussions, and spread doubt (Förstl, 2020). A high intolerance for uncertainty in people who do not adhere to conspiracy beliefs helps assess the risks of SARS-CoV-2 (Maftei & Holman, 2020).

The literature review demonstrates the existence of a highly urgent problem of trust in health information during the pandemic. What personality traits determine the attitude to health information requires more research, and this problem underlies our investigation.

Considering the ongoing changes in society during the pandemic, including the rethinking of the media and their role, we set in this study the following objective: to determine the level of trust of Ukrainian university students in traditional and social media depending on their psychological and emotional characteristics during the COVID-19 pandemic.

To achieve this, we set the following research questions:

RQ1: What are the basic levels of media trust during the COVID-19 pandemic?

RQ2: What are the dominant emotional responses to the media during the COVID-19 pandemic?

RQ3: How do those dominant emotional responses to the information about COVID-19 affect levels of media trust?

Method

Participants

In total, 213 healthy young adults (44.1% men, 55.9% women aged 17 to 23 years, $M_{age} = 19$, $SD = 1.28$ years) participated in the study. All participants were first-, second-, third- and fourth-year students at National Aviation University (Faculty of Linguistics and Social Communications (Aviation psychology department), Aerospace Faculty), the Taras Shevchenko National University of Kyiv (Psychology Faculty, specialties "Psychology" and "Military Psychology"), Igor Sikorsky Kyiv Polytechnic Institute (Electronic Engineering Faculty). 44 of the 213 subjects combined study at university and work. The sample size is sufficient for resolving the similar specified research aims due to the number of used variables in well-controlled studies (Fritz, & MacKinnon, 2007; Willaby et al., 2015; Vasheka et al., 2020). The local ethical committee approved the research. Before answering the survey, each participant provided informed consent under the World Medical Association (WMA) Declaration of Helsinki (Helsinki, Finland, June 1964).

Procedure

All participants were tested December 2020 - March 2021. The research involved an online survey with several Likert scales. Filling out the questionnaire survey took 30 and 45 minutes. We recruited participants online by informing the participating universities about the study and its objectives.

Questionnaires

We developed a questionnaire that contained several blocks to examine trust in the media during the COVID-19 pandemic in Ukraine. Demographic block, questions about the coronavirus for the respondent himself and (or) his family, the severity of the disease, and existing complications. Another block of questions aimed to diagnose compliance with hygiene standards and preventive measures (masks and lockdowns). There were two major lockdowns: at the beginning of the pandemic (March-May 2020, when the strict lockdown was imposed in Ukraine restricting citizens' movements) and September 2020, when the maximum infection and mortality numbers were recorded; however, this lockdown was weaker than the first. Separate questions related to the period of self-isolation (March-May, 2020), emotional reactions to the pandemic, and coping strategies with depressive states.

We investigated the level of severity of neurotic states in students with psychometric techniques ('Clinical questionnaire for identifying and assessing neurotic states' by K. Yakhin, D. Mendelevich), the level of psychological stress (Lemur-Tessier-Fillion Psychological Stress Measure, PSM-25), and basic coping strategies used by respondents (Ways of Coping Questionnaire (WOCQ) by Richard Lazarus).

Personality and mental health variables

The 25-item Lemur-Tessier-Fillion Psychological Stress Measure (PSM-25) was used to assess current work-related stress levels as the sum from 25 to 200 points. For each item, participants rated the extent to which they agreed with the statement on an 8-point Likert scale (0 = "not at all", 8 = "greatly") (Raigorodsky, 2011).

Besides, we used a Clinical questionnaire for the identification and assessment of neurotic conditions to analyze neurotic manifestations and to identify the primary syndromes of neurotic

states (Yakhin & Mendelevich, 2005). The questionnaire consisted of 68 questions and included six scales: anxiety, neurotic depression, asthenia, hysterical type of reaction, obsessive-phobic disorders (obsessions), and autonomic disorders. In addition, for each item, participants rated their current state on a 5-point Likert scale (1 = always or constantly, 5= never happened).

Coping strategies

The 'Ways of Coping Questionnaire' (WOCQ) was used to determine coping mechanisms and ways to overcome life situation difficulties in various areas of mental activity. The technique was developed by R. Lazarus and S. Folkman (Lazarus, 1986) and adapted in Russian by Kryukova, Kuftyak, and Zamyshlyeva in 2004 (Kryukova & Kuftyak, 2007). WOCQ contains eight factors of coping strategies: confrontative coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem-solving, and positive reappraisal (Lazarus, 1986; Krohne, 2002). Participants evaluated 50 statements regarding behavior in a difficult life situation on a 4-point Likert scale according to how often these behaviors appear in him/her (0 = never, 4 = often) (Kryukova & Kuftyak, 2007).

Media Trust

Trust in the sources providing information on COVID-19 was measured using 8 statements, each related to a specific media or another source of information. The sources of COVID-19 information were: national TV, international TV, print media (newspapers, magazines), news websites, radio, social media (Facebook, Twitter, Instagram, etc.), family, and friends. In addition, the respondents answered the following questions:

How do you feel about the information in the media about the coronavirus pandemic in the world?

Please, indicate the percentage of the information you receive from each information source of the COVID-19 pandemic (the sum of all values should be 100%).

The respondents assessed the level of trust in COVID-19 information sources on a 10-point Likert scale ranging from «-5» (I do not trust at all) to «5» (I trust entirely).

Data analysis

Data analysis was completed using IBM Statistical Package for Social Sciences (SPSS), version 15 for Windows. Kolmogorov-Smirnov test indicated that several variables were normally distributed. Therefore, we used parametric tests to examine associations and differences between all main variables (*t-test*, One-way *ANOVA*). One-way *ANOVA* was used to compare 3 groups. To clarify the differences between the groups, we performed a pairwise comparison using the *t-test*.

Results

According to the survey results, 28.7% of respondents do not seek information about coronavirus in the media; 52.3% search for information about the pandemic 1-2 times a week; 19% are looking for information about the epidemic daily. In addition, 6.5% look exclusively for information about the coronavirus, after which they turn off the TV or leave the internet.

Searching for information about the coronavirus is a priority for 5.1% of respondents; they prefer programs about the pandemic to anything else. However, 61.6% do not focus only on finding information about the coronavirus, and they have many hobbies and other activities. Interestingly, 6.9% of students indicated they watch news programs about the pandemic due to boredom; they also eat poorly and do little to no exercise.

We designed another block of questions to examine the attitude towards information about coronavirus presented in the media. Assessing the extent to which information contributes to

understanding health risks, 86.1% of respondents indicated that it somewhat promotes such knowledge, and only 13.9% noted that it does not help.

More than two-thirds of the students (68.1%) assessed the pandemic as exotic and new for them; 78.1% felt the situation with the pandemic seemed out of control; 53.2% believed the pandemic would have catastrophic consequences. In addition, 55.1% of respondents were sure that the pandemic was of an artificial origin.

Quarantine measures (according to information in the media) are justified and fair for most participants (52.8%).

According to 44.4% of respondents, information about the pandemic in the media does not help prevent the negative consequences of the measures proposed to resist the pandemic.

At the same time, 82.9% of students believed that information about the pandemic in the media had a positive effect on their safety. Furthermore, 87% were confident that the pandemic is fatal.

RQ1. What are the basic levels of media trust during the COVID-19 pandemic?

To test the characteristics of the response to the coronavirus pandemic from students with different attitudes towards information in the media, we applied a comparative analysis using the one-way ANOVA.

We divided the respondents into three groups following their answers to the question, "How do you feel about information in the media regarding the coronavirus pandemic?"

The first group (44 people) included respondents who trust the media (they believe information about the coronavirus in the media is reliable). The second group (105 people) included students who do not trust the media and are convinced that the media hide facts. Finally, the third group (53 respondents) believes that the media exaggerate the danger and invent it.

One-way ANOVA made it possible to detect significant differences between the three groups regarding psychological stress and avoidance coping strategies (Table 1).

Table 1. Comparison of the stress level severity and coping strategies among students with different levels of trust to media information (one-way ANOVA).

	Group 1	Group 2	Group 3	Significance (p)
Psychological stress	76,2	89,5	96,8	0,016
Avoidance	46,5	52,9	57,1	0,031

RQ2. What are the dominant emotional responses to the media during the COVID-19 pandemic?

To find out if there are differences between the two groups, we used *Student's t-test*. As a result, we found significant differences between the first and second groups (Table 2) in terms of such indicators: anxiety, asthenia, autonomic disorders, and stress.

Table 2. Comparison of the neuropsychiatric disorders' severity among students with different levels of trust to media information.

Group	Anxiety		Asthenia		Autonomic disorders		Stress	
1	2.45	p=.022	0.016	p=.019	4.77	p=.045	76.2	p=.034
2	0.44		-1.13		1.47		89.4	

RQ3. How do groups with different media trust levels differ regarding dominant emotional responses to the information about COVID-19?

We compared the trust in the media with other nominative characteristics measured using the questionnaire. Table 3 shows a comparison of experiencing negative emotions in groups of students with different attitudes toward media information.

Table 3. Cross-tabulations of the trust level towards emotional information during the COVID-19 pandemic.

	Fear	Indifference	Anger	Helplessness
Group 1 (Full Media Trust)	17,1%	39,0%	19,5%	24,4%
Group 2 (Media hides information)	25,5%	26,5%	32,4%	15,7%
Group 3 (Media exaggerates the danger)	11,5%	38,5%	32,7%	17,3%

Monitoring reports after April 2 showed the stability of COVID-19.

As part of the preparation of the RMR sample for the experiment, we conducted a pre-experimental "examination" of the RMR with the participation of subjects from the control group of the investigation, i.e., young people. These "experts" did not take part in the experiment.

21 respondents, selected from the control group of subjects, examined 11 RMR. Everyone among so-called experts accidentally fell into this group: someone could not participate further in the experiment due to lack of a webcam; someone abandoned the experiment; two were unable to complete the survey due to quarantine restrictions but were eager to be "useful" to the case. However, all subjects, except two, ID_XXXCE and ID_YYYCE, approximately two weeks before the experiment (from 23 to March 25) underwent an incoming, "recruiting" questionnaire to determine the types (portraits) of respondents in the categories of "attitude to the pandemic", "for media activity", "features of media consumption", "attitude to pandemic coverage in the media". Table 9 below presents the social portraits (types) of experts.

Discussion

The research results reflect the attitude of Ukrainian students to the media in general. Students prefer to be on the internet rather than traditionally watching TV or listening to the radio. Singling out a television or radio segment on the internet, they can deliberately use their information but still prefer social media or other websites. The fact that 52.3% are looking for information about the pandemic 1-2 times a week in the news media and 19% - every day, in effect, reveals the growing trust of young people in traditional media in critical situations.

Such situations relate to extreme living conditions - a pandemic, wearing masks, lockdown, the undeniable influence of the authorities on the life of society (although this is seen as intrusive changes in the behavior of society - 54.6%), the need to feel protected from the state because for the majority (78.1% of respondents) the situation with the pandemic seems uncontrolled. The desire to learn more accurate information firsthand indicates students' attitudes towards traditional media as more reliable sources of information.

Nevertheless, the carelessness of young people, even in critical situations, is tangible: 61.6% do not focus only on finding information about the coronavirus; they have many hobbies and other activities.

The trusting attitude among students towards the media also has a negative side of cognitive behavior: as evidenced by data analysis (Table 2), such students have more pronounced neuropsychiatric disorders associated in particular with anxiety, asthenia, and autonomic disorders,

although in general, stress resistance in this group of respondents is higher than among students who do not trust the media.

Students who believe that the media exaggerate the danger of a pandemic avoid facts and try to remain calm by ignoring information or challenging it (Table 1). However, this is a natural form of denying behavior (Son et al., 2020; Halvaiepour & Nosratabadi, 2021).

The level of psychological stress is most pronounced in the third group (Table 1), which may indicate exhaustion from seeming “overarching”, exaggeration in the media about the pandemic and its potential and actual threats.

As we see from the data, the stress level is lower among those with complete trust in the media. On the other hand, the anxiety level is higher among those with fewer media trust (think that media does not tell the whole truth). This finding means that the higher media trust is among students, the less anxiety and the more psychological stress they tend to experience. However, this relation should be verified in further research.

Limitations of the study

The most significant limitation of this study is the little representability of these findings, first due to a small and restricted sample of respondents. For example, our respondents represented only university youth. However, we can hardly extrapolate this study’s results to young Ukrainians in general. Thus, further research should address these issues.

We did not focus on cultural differences in this study since, from our point of view and collected literature, the problem of trust in health information does not have cultural dependence and is a common human nature. Even though national culture affects the use and tastes in mass media use during the COVID-19 pandemic (e.g., individualistic tendencies in the USA vs. collectivistic trends in Thailand and Croatia) (Sheldon et al., 2021). Scholars may perform more intercultural research about media trust during the COVID-19 pandemic to fix this issue.

We know that the self-report methodology needs the necessary objectivity and representability of the results. However, during such a threat to the life and health of our students, we could not afford to conduct such a study in a lab setting, given the lockdown restrictions. Therefore, further research on pandemic issues should involve laboratory experiments to achieve more control of all the moderating and mediating variables. Since conducting a study in a similar condition is vital to valid research.

Conclusions

We can conclude that in critical situations, young people return to trusting traditional media. However, the degree of trust in information will differ for people with differentiated neuropsychiatric disorders. Media trust may take much work to evaluate and comprises a set of indicators. A more trusting attitude to information among students with pronounced neuropsychiatric disorders, which, in effect, is natural since “information therapy” acts as substitution therapy: a person is looking for an explanation for his condition; he finds it in media information and calms down. New knowledge reduces stress levels. People with a low neuropsychiatric disorder level do not trust the media either because they suspect the media are hiding reliable information. Alternatively, they may twist it, invent it, and are more susceptible to stress because of a non-indifferent, “spiteful” response to media activities and the need to deny written or heard.

References

- Ahmed, O., Hossain, K. N., Siddique, R. F., & Jobe, M. C. (2021). COVID-19 fear, stress, sleep quality and coping activities during lockdown, and personality traits: A person-centered approach analysis. *Personality and Individual Differences*, 178, 110873. <https://doi.org/10.1016/j.paid.2021.110873>
- Anwar, A., Malik, M., Raees, V., & Anwar, A. (2020). Role of mass media and public health communications in the COVID-19 pandemic. *Cureus*, 12(9): e10453. <https://doi.org/10.7759/cureus.10453>
- Apuke, O. D., & Omar, B. (2020). Fake news and COVID-19: modelling the predictors of fake news sharing among social media users. *Telematics and Informatics*, 56, 101475. <https://doi.org/10.1016/j.tele.2020.101475>
- Austin, E. W., Borah, P., & Domgaard, S. (2021). COVID-19 disinformation and political engagement among communities of color: The role of media literacy. *Harvard Kennedy School Misinformation Review*. 1(Special Issue on US Elections and Disinformation). <https://doi.org/10.37016/mr-2020-58>
- Basch, C. H., Hillyer, G. C., Meleo-Erwin, Z., Mohlman, J., Cosgrove, A., & Quinones, N. (2020). News coverage of the COVID-19 pandemic: Missed opportunities to promote health sustaining behaviors. *Infection, Disease & Health*, 25(3), 205-209. <https://doi.org/10.1016/j.idh.2020.05.001>
- Bendau, A., Petzold, M. B., Pyrkosch, L., Maricic, L. M., Betzler, F., Rogoll, J., ... & Plag, J. (2021). Associations between COVID-19 related media consumption and symptoms of anxiety, depression and COVID-19 related fear in the general population in Germany. *European archives of psychiatry and clinical neuroscience*, 271(2), 283-291. <https://doi.org/10.1007/s00406-020-01171-6>
- Blasco, M. M., Castella, C. O., & Raso, M. L. (2020). Impact of the Covid-19 pandemic on media consumption in Spain. *Revista Latina de Comunicación Social*, (78), 155-167. <https://doi.org/10.4185/RLCS-2020-1472>
- Chao, M., Xue, D., Liu, T., Yang, H., & Hall, B. J. (2020). Media use and acute psychological outcomes during COVID-19 outbreak in China. *Journal of Anxiety Disorders*, 74, 102248. <https://doi.org/10.1016/j.janxdis.2020.102248>
- Cinelli, M., Quattrociocchi, W., Galeazzi, A., Valensise, C. M., Brugnoli, E., Schmidt, A. L., ... & Scala, A. (2020). The covid-19 social media infodemic. *Scientific Reports*, 10(1), 1-10. <https://doi.org/10.1038/s41598-020-73510-5>
- Cuello-Garcia, C., Pérez-Gaxiola, G., & van Amelsvoort, L. (2020). Social media can have an impact on how we manage and investigate the COVID-19 pandemic. *Journal of Clinical Epidemiology*, 127, 198-201. <https://doi.org/10.1016/j.jclinepi.2020.06.028>
- Dhanani, L. Y., & Franz, B. (2020). The Role of News Consumption and Trust in Public Health Leadership in Shaping COVID-19 Knowledge and Prejudice. *Frontiers in psychology*, 11, 2812. <https://doi.org/10.3389/fpsyg.2020.560828>
- Erceg, N., Ružojić, M., & Galić, Z. (2020). Misbehaving in the corona crisis: The role of anxiety and unfounded beliefs. *Current Psychology*, 1-10. <https://doi.org/10.1007/s12144-020-01040-4>
- Fernández-Torres, M. J., Almansa-Martínez, A., & Chamizo-Sánchez, R. (2021). Infodemic and Fake News in Spain during the COVID-19 Pandemic. *Int. J. Environ. Res. Public Health*, 18(4), 1781. <https://doi.org/10.3390/ijerph18041781>
- Förstl, H. (2020). Die COVID-19-Verschwörung in Theorie und Praxis. *DMW-Deutsche Medizinische Wochenschrift*, 145(25), 1870-1875. <https://doi.org/10.1055/a-1216-6974>

- Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., ... & Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. *Plos one*, 15(4), e0231924. <https://doi.org/10.1371/journal.pone.0231924>
- Garcia, L. P., & Duarte, E. (2020). Infodemic: excess quantity to the detriment of quality of information about COVID-19. *Epidemiol. Serv. Saúde*, 29(4), e2020186. <https://doi.org/10.1590/S1679-49742020000400019>
- Geçer, E., Yıldırım, M., & Akgül, Ö. (2020). Sources of information in times of health crisis: evidence from Turkey during COVID-19. *Journal of Public Health*, 1-7. <https://doi.org/10.1007/s10389-020-01393-x>
- Hafner-Fink, M., & Uhan, S. (2021). Life and attitudes of Slovenians during the COVID-19 pandemic: The Problem of Trust. *International Journal of Sociology*, 51(1), 76-85. <https://doi.org/10.1080/00207659.2020.1837480>
- Hall, S. (2020). Empty stadiums and online streaming: How coronavirus is affecting the media industry. *World Economic Forum*. Retrieved from <https://www.weforum.org/agenda/2020/03/covid-19-coronavirus-media-entertainment-sports/>
- Halvaiepour, Z. & Nostrabadi, M. (2021). Investigating the Relationship between Adverse Childhood Experiences and Cigarette Smoking in University Students in Isfahan, Iran. *Journal of Child & Adolescent Trauma*, 15(2), 319-325. <https://doi.org/10.1007/s40653-021-00383-9>
- Havrylets, Y., Tukaiev, S., Rizun, V., & Shenderovskiy, K. (2019). Impact of TV News on Psycho-Physiological State Depending on Emotional Burnout. *Journal of Content, Community & Communication*, 5 (9), 13-25, <http://dx.doi.org/10.31620/JCCC.06.19/04>
- Keckojevic, A., Basch, C. H., Sullivan, M., & Davi, N. K. (2020). The impact of the COVID-19 epidemic on mental health of undergraduate students in New Jersey, cross-sectional study. *PloS one*, 15(9), e0239696. <https://doi.org/10.1371/journal.pone.0239696>
- Kim, K., & Lee, Y. M. (2018). Understanding uncertainty in medicine: concepts and implications in medical education. *Korean journal of medical education*, 30(3), 181-188. <https://doi.org/10.3946%2Fkjm.2018.92>
- Krohne, H. W. (2001). Stress and coping theories. *International Encyclopedia of the Social Behavioral Sciences*, 22, 15163-15170. <https://doi.org/10.1016/B0-08-043076-7/03817-1>
- Kryukova, T. L., & Kufiyak, E. V. (2007). Questionnaire of coping methods (adaptation of the WCQ methodology). *Zh. Prakt. Psikhol.*, 3, 93-112. (In Russian)
- Lazarus, R. (1986). Coping strategies. In *Illness Behavior* (pp. 303-308). Springer, Boston, MA. https://doi.org/10.1007/978-1-4684-5257-0_21
- Maftei, A., & Holman, A. C. (2020). Beliefs in conspiracy theories, intolerance of uncertainty, and moral disengagement during the coronavirus crisis. *Ethics & Behavior*, 1-11. <https://doi.org/10.1080/10508422.2020.1843171>
- Majeed, M., Irshad, M., Fatima, T., Khan, J., & Hassan, M. M. (2020). Relationship between problematic social media usage and employee depression: a moderated mediation model of mindfulness and fear of CoViD-19. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.557987>
- Marco-Franco, J. E., Pita-Barros, P., Vivas-Orts, D., González-de-Julián, S., & Vivas-Consuelo, D. (2021). COVID-19, Fake News, and Vaccines: Should Regulation Be Implemented? *Int. J. Environ. Res. Public Health*, 18(2), 744. <https://doi.org/10.3390/ijerph18020744>
- Moscadelli, A., Albora, G., Biamonte, M. A., Giorgetti, D., Innocenzio, M., Paoli, S., ... & Bonaccorsi, G. (2020). Fake news and COVID-19 in Italy: Results of a quantitative observational study. *International Journal of Environmental Research and Public Health*, 17(16), 5850. <https://doi.org/10.3390/ijerph17165850>

- Pajnik, M. & Hrženjak, M. (2022) The Intertwining of the Covid-19 Pandemic with Democracy Backlash: Making Sense of Journalism in Crisis. *Journalism Practice*.
<https://doi.org/10.1080/17512786.2022.2077806>
- Pogorilska, N. I., Synelnykov, R. Y., Palamar, B. I., Tukaiev, S. V., & Nezhyva, L. L. (2021). Features of Psychological Experiences in Severe Quarantine during the Covid-19 Pandemic: The Role of Tolerance for Uncertainty. *Wiad Lek*, 74(6), 1312-1316.
<http://dx.doi.org/10.36740/WLek202106104>
- Preston, S., Anderson, A., Robertson, D. J., Shephard, M. P., & Huhe, N. (2021). Detecting fake news on Facebook: The role of emotional intelligence. *PLoS ONE*, 16(3): e0246757
<https://doi.org/10.1371/journal.pone.0246757>
- Raigorodsky, D. Ya. (2011). *Prakticheskaya psihodiagnostika. Metodiki i testy* [Practical Psychodiagnosics. Methodology and Tests]. Moscow: Bahrah–Moscow. (In Russian)
- Romer, D., & Jamieson, K. H. (2020). Conspiracy theories as barriers to controlling the spread of COVID-19 in the US. *Social Science & Medicine*, 263, 113356.
<https://doi.org/10.1016/j.socscimed.2020.113356>
- Sandín, B., Valiente, R. M., García-Escalera, J., Campagne, D. M., & Chorot, P. (2020). Psychological impact of the COVID-19 pandemic: Negative and positive effects in Spanish population during the mandatory national quarantine. *Journal of Psychopathology and Clinical Psychology/Revista de Psicopatología y Psicología Clínica*, 25(1), 1-21.
<https://doi.org/10.5944/rppc.28107>
- Schmidt, A. L., Zollo, F., Del Vicario, M., Bessi, A., Scala, A., Caldarelli, G., ... & Quattrociocchi, W. (2017). Anatomy of news consumption on Facebook. *Proceedings of the National Academy of Sciences*, 114(12), 3035-3039.
<https://doi.org/10.1073/pnas.1617052114>
- Seitz, B. M., Aktipis, A., Buss, D. M., Alcock, J., Bloom, P., Gelfand, M., ... & Haselton, M. G. (2020). The pandemic exposes human nature: 10 evolutionary insights. *Proceedings of the National Academy of Sciences*, 117(45), 27767-27776.
<https://doi.org/10.1073/pnas.2009787117>
- Son, E., Hedge, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on College Students' Mental Health in the United States: Interview Survey Study. *Journal of Medical Internet Research*, 22(9), e21279. <https://doi.org/10.2196%2F21279>
- Srivastava, K. C., Shrivastava, D., Chhabra, K. G., Naqvi, W., & Sahu, A. (2020). Facade of media and social media during covid-19: A review. *Int. J. Res. Pharm. Sci.*, 11(Special Issue 1), 142-149. <https://doi.org/10.26452/ijrps.v11iSPL1.2288>
- Stainback, K., Hearne, B. N., & Trieu, M. M. (2020). COVID-19 and the 24/7 News Cycle: Does COVID-19 News Exposure Affect Mental Health? *Socius*, 6, 2378023120969339.
<https://doi.org/10.1177/2378023120969339>
- Su, Y. (2020). It doesn't take a village to fall for misinformation: Social media use, discussion heterogeneity preference, worry of the virus, faith in scientists, and COVID-19-related misinformation beliefs. *Telematics and Informatics*, 58, 101547.
<https://doi.org/10.1016/j.tele.2020.101547>
- Šrol, J., Mikušková, E. B., & Cavojeva, V. (2021). When we are worried, what are we thinking? Anxiety, lack of control, and conspiracy beliefs amidst the COVID-19 pandemic. *Applied Cognitive Psychology*, 35(3), 720-729. <https://doi.org/10.1002/acp.3798>
- Vai, B., Cazzetta, S., Ghiglino, D., Parenti, L., Saibene, G., Toti, M., ... & Benedetti, F. (2020). Risk perception and media in shaping protective behaviors: insights from the early phase of COVID-19 Italian outbreak. *Frontiers in Psychology*, 11.
<https://doi.org/10.3389/fpsyg.2020.563426>
- van der Linden, S., Roozenbeek, J., & Compton, J. (2020). Inoculating Against Fake News About COVID-19. *Frontiers in Psychology*, 11, 2928.
<https://doi.org/10.3389/fpsyg.2020.566790>

- Van Prooijen, J. W., & Douglas, K. M. (2017). Conspiracy theories as part of history: The role of societal crisis situations. *Memory Studies*, 10(3), 323-333.
<https://doi.org/10.1177/1750698017701615>
- Vasheka, T., Vlasova-Chmeryk, O., Dolgova, O., Palamar, B., Pravda, O., & Tukaiev, S. Coping strategies and psychological adjustment to the COVID-19 pandemic among the Ukrainian student youth. *Wiadomości lekarskie*, (Submitted)
- Wu, Y., & Shen, F. (2021). Exploring the impacts of media use and media trust on health behaviors during the COVID-19 pandemic in China. *Journal of Health Psychology*, 27(6), 1445-1461. <https://doi.org/10.1177/1359105321995964>
- Yakhin, K. K., & Mendelevich, D. M. (2005). Clinical questionnaire for the identification and assessment of neurotic conditions. In *Klinicheskaya i meditsinskaya psikhologiya* [Clinical and Medical Psychology] (pp. 399-404). (In Russian)
- Zhao, E., Wu, Q., Crimmins, E. M., & Ailshire, J. A. (2020). Media trust and infection mitigating behaviours during the COVID-19 pandemic in the USA. *BMJ Global Health*, 5(10), e003323. <http://dx.doi.org/10.1136/bmjgh-2020-003323>