

***Misinformation in the healthcare sector in
Czech Republic:
An analysis of users' perceptions and
behaviour.***

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Introduction

Research on medical disinformation is a key area for understanding how disinformation affects the public and how it spreads through social media platforms. This study aims to answer the following research question: *How effectively can the public recognize and evaluate medical disinformation, and what factors influence their perception of and interaction with it?* It focuses primarily on the content of the message, its source, and the way it is phrased, as these elements often determine whether people will believe the information or not. The issue of medical disinformation is currently extremely relevant, not only because of its rapid spread via online social media platforms, but also because of its potential impact on public health and trust in the healthcare system.

There is a relatively large body of research focused on medical topics in disinformation and misinformation spread on social media platforms¹. However, most of these studies examine this phenomenon in the United States. Our study, which was conducted in the Czech Republic as well as in Poland and Slovakia, is therefore relatively unique in its Central European focus. This text summarizes the findings from the Czech portion of the research.

In the following chapters, we describe the research procedure and its results in detail. The chapter “*Research Procedure and Data Collection Methods*” describes the study design in detail, including the methods used and the criteria for selecting the social media posts analyzed. The “*Data*” section presents the sociodemographic characteristics of the respondents and their experiences with serious health problems, as well as the sources of health information they use. The chapter “*Recognizing Misinformation in the Field of Medicine*” analyzes how respondents assessed the truthfulness, manipulative nature, and credibility of individual posts. The following section, “*Attribution and Influence of Information Sources*,” examines how respondents attributed the dissemination of posts to various actors, such as internet trolls, scientists, or foreign states. The chapter “*Analysis of Interactions*” presents the results of our observation of how respondents interacted with the posts. In the conclusion of the study, we summarize the main findings from the research.

¹ Yeung, A. W. K., Tosevska, A., Klager, E., Eibensteiner, F., Tsagkaris, C., Parvanov, E. D., ... & Atanasov, A. G. (2022). Medical and health-related misinformation on social media: a bibliometric study of the scientific literature. *Journal of Medical Internet Research*, 24(1), e28152.

Research Approach and Data Collection Methods

One of the key areas of research on medical disinformation is identifying the fundamental characteristics that make it persuasive to recipients. In this study, we are particularly interested in factors such as: the content of the message, its origin, and the way it is phrased. To determine these characteristics, our team conducted a survey on a sample representative of the population of the Czech Republic. The survey was conducted by Pollster in June and July 2026. The interviews were conducted using the CAWI (Computer-Assisted Web Interviewing) method. The total number of respondents was 777. Given the structure of the questionnaire, the survey incorporated elements of netnography, understood as the observation of user behavior in a simulated communication environment on various platforms.

Achieving representativeness was very challenging given the research topic, its specific nature, and practical difficulties. Instead of strictly adhering to exact proportions across individual sociodemographic categories, we focused on ensuring sufficient diversity in the population sample in terms of age, gender, education, and size of place of residence. Other characteristics we monitored—though for which it was impossible to track appropriate proportions in the sample at all due to a lack of supporting research—included household economic conditions and the social proximity of seriously ill individuals. We describe the sociodemographic variables we included in more detail in the *Data* chapter.

A database of debunked disinformation, prepared and maintained by Demagog—an organization dedicated to fact-checking—was used in selecting the posts. The following criteria were applied in selecting the materials:

1. Relevance to respondents, understood as a connection to actual or potential personal experiences.
2. Content that allows us to determine whether it is being manipulated by the recipient.
3. To control for the influence of contextual factors, cases containing true information – structurally analogous but showing no signs of disinformation – were selected for evaluation.

The complete documentation is provided in the appendix.

The research and analytical procedure was as follows:

1. Each respondent was given online posts related to health issues, collected from social media platforms, to evaluate. There were nine posts in total. Some of them contained true information



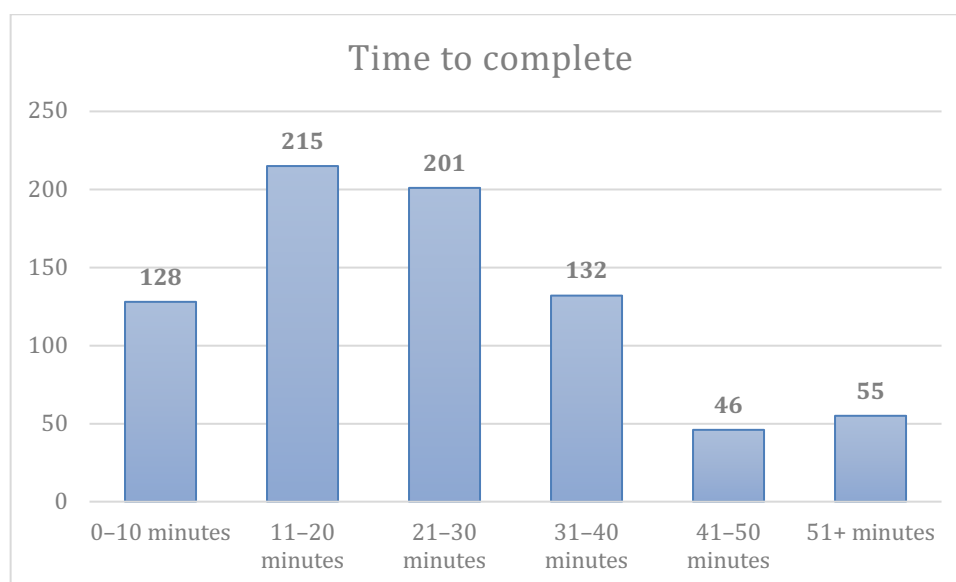
- (3), while others contained false information (6). In the section featuring these posts, the questionnaire had an interface resembling that of an actual social media platform. Respondents were therefore able to interact with the posts by sharing, liking, disliking, reporting, and commenting on them.
2. For each post, respondents were then asked a set of questions related to the content. These questions involved various assessments of the content. More details are provided in the chapter *“Recognizing Misinformation in the Field of Medicine.”*
 3. Finally, all respondents were asked a set of sociodemographic and supplementary questions.



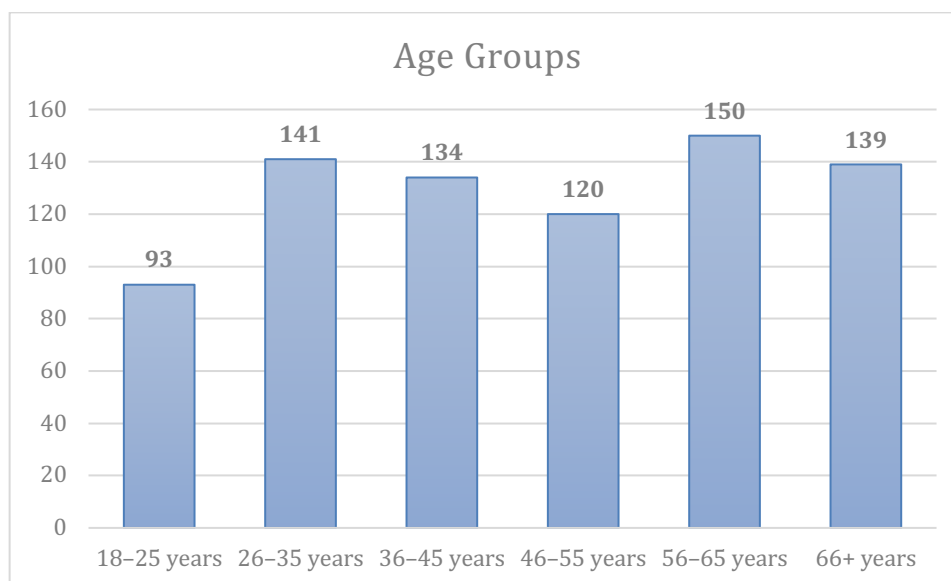
Data

The resulting dataset contains 777 complete questionnaires. Due to technical errors, two respondents did not complete all questions; however, in order to preserve as many available responses as possible, they were not excluded from the entire dataset but only from the unanswered questions.

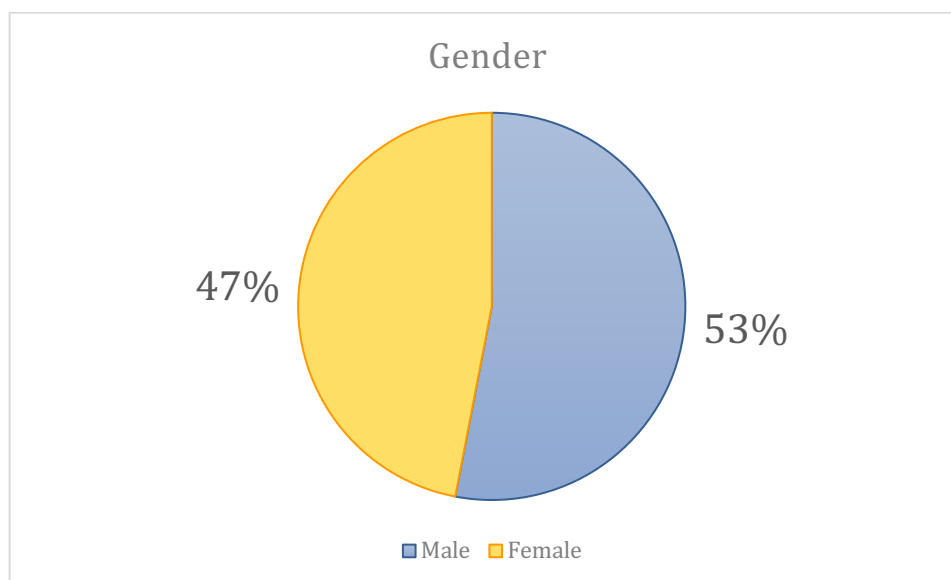
We can categorize the collected responses based on several key characteristics. First and foremost is the time taken to complete the questionnaire, which indicates how thoroughly respondents approached the task. However, this is not a perfect indicator, as other factors also influence completion time, such as the respondent's age, interruptions during completion, or reading ability. The average completion time is 28.4 minutes, and the median is 39 minutes. 128 respondents completed the questionnaire in 10 minutes or less. This group's responses may therefore have been less thorough.



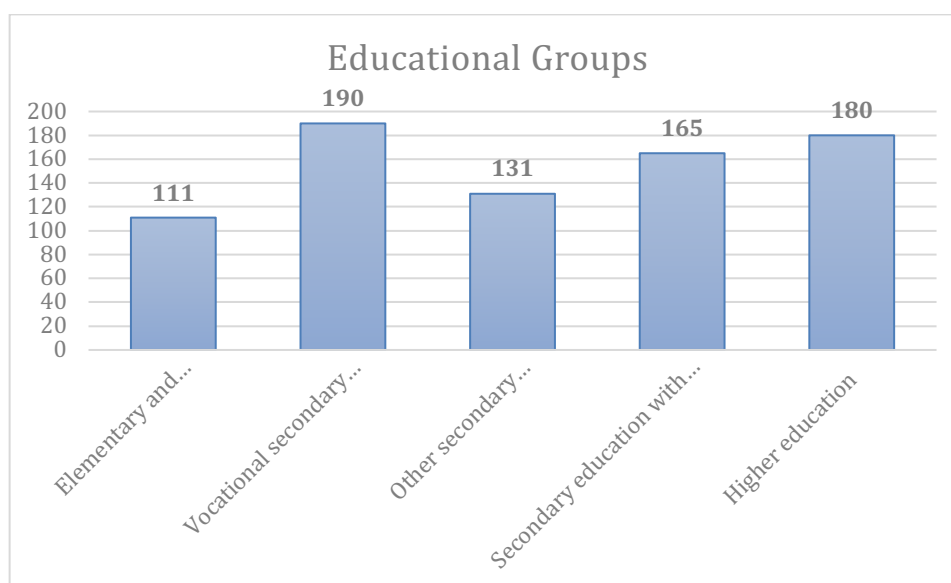
The respondents are relatively evenly distributed across age groups. Although the research sample does not correspond to the population distribution in the Czech Republic, it nevertheless includes a substantial number of respondents in each age category. As a result, the resulting dataset is not skewed by the influence of one or a few age groups. A significant portion of the respondents (139) also falls into the oldest age group, 66 years and older. Given that respondents in this age group use the internet less frequently and are also harder to reach for completing online questionnaires, this number is a strength of the study.



The sample is also relatively evenly divided into two halves in terms of the respondents' gender. Although women slightly outnumber men in the general population of the Czech Republic, they make up only 47% of our sample; however, this is a statistically insignificant deviation.



The educational distribution of the collected sample is also sufficiently represented in each category. Given that the survey was conducted in multiple countries, we had to slightly adjust the educational categories from their standard questionnaire format. This was done to facilitate comparability with studies conducted in Poland and Slovakia. Once again, the distribution of educational groups is not exactly representative of the population in the Czech Republic; however, the number of respondents in each category is sufficiently robust for comparative analysis.

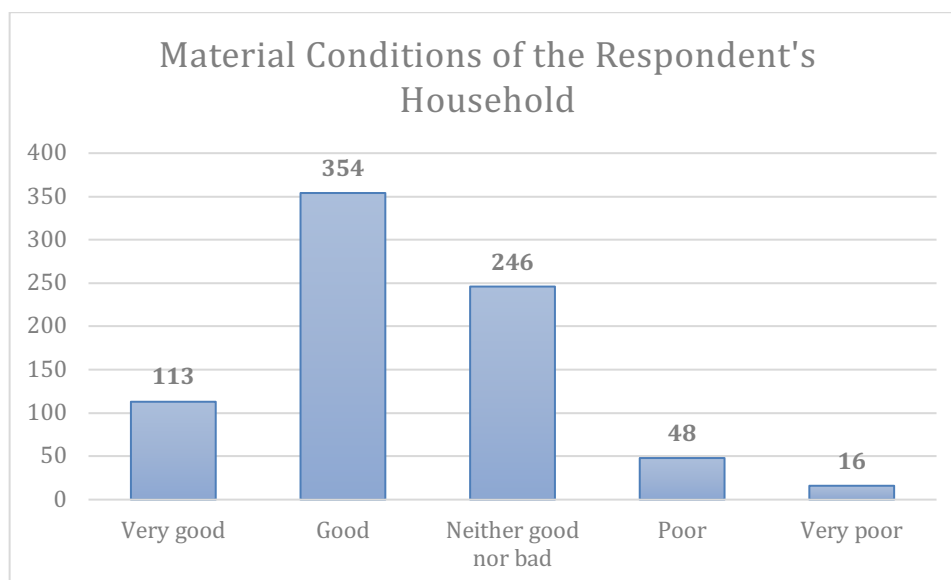


Another commonly used indicator is the size of the municipality from which the respondent comes. However, the analytical significance of this indicator is limited by the municipality's location. There is a significant difference, for example, between the attitudes of people living in small municipalities located in peripheral areas and those living in municipalities that are part of a metropolitan area. Even for this variable, the categories are relatively well-represented.

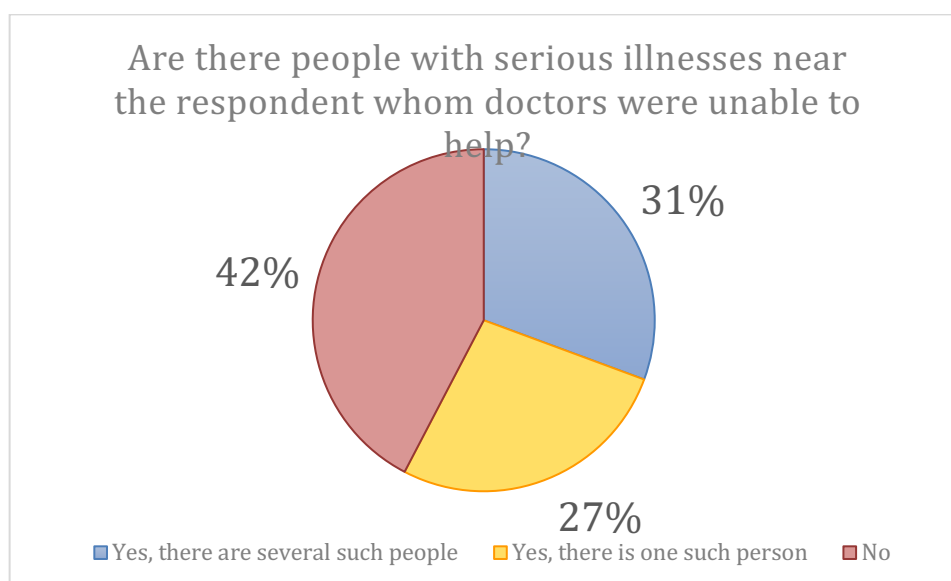


A very important indicator is the respondent's financial security. A household's economic situation significantly influences attitudes, experiences, and the level of cultural capital, which, for example, enables the accurate detection of disinformation. A limitation of this item is the unclear assessment of when a household is in a financially good or bad situation. Such an assessment is highly subjective.

For some respondents, the need to present their economic situation in a more favorable light also plays a role. However, the negative impact of these limitations is mitigated by the use of a five-point response scale. Most respondents rate their household's financial situation as good, or as neither good nor bad. Only a small proportion of them rate it as bad or even very bad.



Given that the research focuses on the assessment of health-related disinformation, it is also important to determine how relevant this topic is to the respondents. To this end, the survey included the following question: Are there people in your immediate circle (among relatives, acquaintances, or family) who have suffered from a serious illness and whom doctors were unable to help? The largest proportion of respondents (42%) do not know anyone like that in their immediate circle. More than a quarter (27%) of respondents know one such person, and just under a third (31%) know more than one. Thus, the majority (58%) of people have indirect experience with a situation in which doctors were unable to help. It is possible that these people will be more susceptible to narratives that cast doubt on medical science or the practice of medicine.



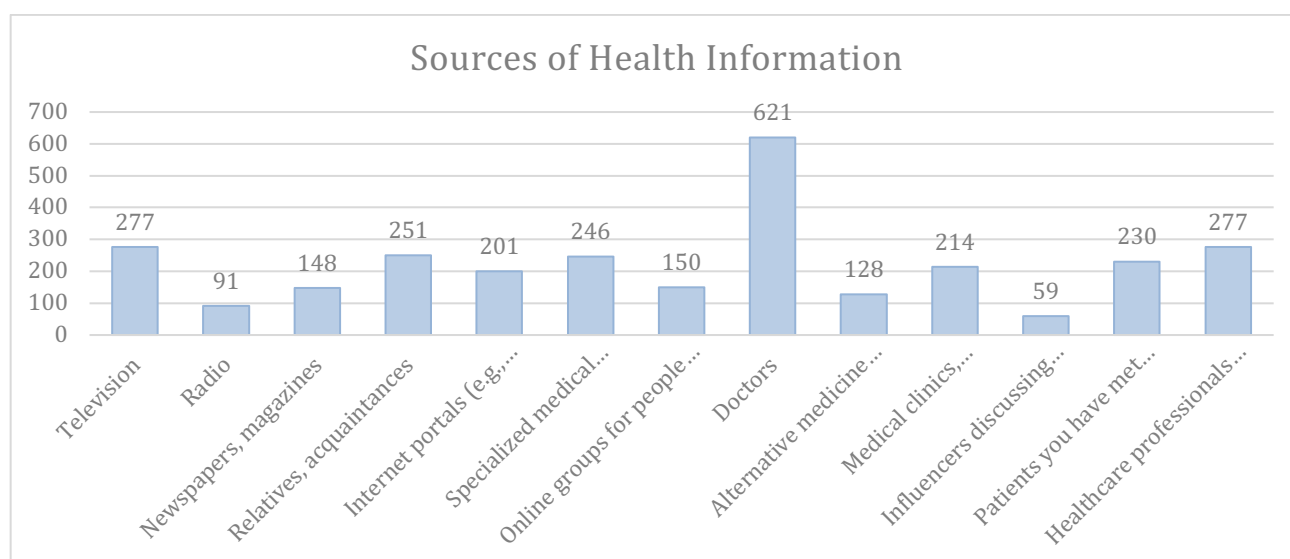
The final variable, which was designed to gather detailed information about the respondents, concerned sources of health information. The question was: “Where do you get information about health-related issues, treatment, and healthcare? You may select any number of answers.”

Respondents were presented with the following list of possible answers:

- Television
- Radio
- Newspapers, magazines
- Relatives, acquaintances
- Internet portals (e.g., Onet, Interia, wp.pl)
- Specialized medical publications (scientific articles)
- Online groups for people interested in a given topic (e.g., on platforms like Facebook, TikTok)
- Doctors
- Alternative medicine experts
- Medical clinics, pharmaceutical companies
- Influencers discussing health, nutrition, and lifestyle; people who are popular online
- Patients you have met during treatment, rehabilitation, examinations, or on other occasions
- Healthcare professionals other than doctors (community nurses, pharmacists, physical therapists)

The most frequently cited source of information on health and treatment was doctors, mentioned in 621 cases. This figure indicates the high level of trust the medical profession enjoys in the Czech

Republic. Furthermore, a relatively high proportion of respondents (277) selected both “television” and “healthcare professionals other than doctors (community nurses, pharmacists, physical therapists).” Other relatively common responses included “Relatives, acquaintances” (251), “Specialized medical publications (scientific articles)” (246), and “Patients you have met during treatment, rehabilitation, examinations, or on other occasions” (230). A significant portion of respondents therefore also uses alternative sources of information, the quality of which, however, may be questionable.



Recognizing Misinformation in the Field of Medicine

Respondents were also presented with social media posts for evaluation. In terms of their appearance and the ability to comment on them, these posts resembled actual posts on the timeline of an online platform. A series of similar questions was asked for each post. These questions addressed 13 dimensions of disinformation: truthfulness, attempts at manipulation, the interests behind the information, whether it was based on rumors or myths, credibility, accountability, emotionality, potential behavioral dimensions (incitement to action), and the potential to change opinions – both the respondent's and those of others. Some of the questions were posed on reverse scales to verify the consistency of the responses. The midpoint on the 11-point scale from 0 to 10 is 5. Scores above 5 indicate—on average—agreement with the statement, while scores below 5 indicate disagreement. The specific wording of the questions was:

- Do you think this material conveys accurate information?
- Do you think this material is an attempt at manipulation?
- Do you think this material concerns you personally?
- Do you think this material could change your attitudes and/or opinions?
- Do you think this material might cause you to take some action?
- Do you think this material might change other people's attitudes and/or opinions?
- Do you think this material might cause other people to take certain actions?
- Do you think this material has been carefully prepared?
- Do you think this material was prepared with good intentions?
- Do you think this material serves the interests of a social or professional group?
- Do you think this material is based on facts?
- Do you think this material is based on rumors, superstitions, or myths?
- Do you think this material was prepared by an author or organization that can be contacted for clarification?

Regarding the first dimension—the assessment of the truthfulness of the information—true posts were rated as authentic, while most false posts were correctly identified as untrue. The exception is false post No. 9, which was rated as authentic. However, it must be noted that the average response score generally hovered around a mean of 5. Thus, respondents were generally not entirely certain which

posts were true and which were not. The average response score for true posts was **5.46**, while for false posts it was **3.80**.

When posts are evaluated as attempts at manipulation, the resulting rating is nominally the opposite but, in terms of meaning, nearly identical to that for evaluating truthfulness. Respondents most often label false posts as manipulative (the average response is **5.90**), while such ratings are lower for true posts (**4.41**). Again, however, this is not a fundamentally significant difference. For post number 9, which claims that coughing can reduce the impact of a heart attack, the rating once again does not correspond to the ratings for other false posts. Compared to other false posts, people are less likely to label it as manipulative. Its average rating (**4.05**) is also below 5, indicating that it is generally not considered manipulative. The ratings of posts in the following categories follow a similar trend to the one described above.

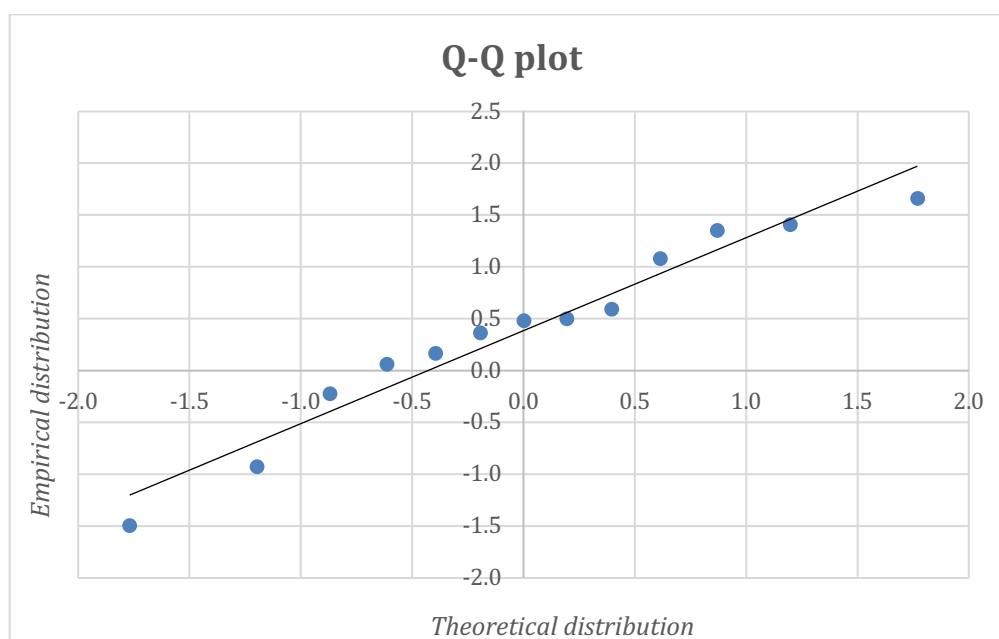
<i>Post</i>	1	2	3	4	5	6	7	8	9
<i>True/False post</i>	N	N	P	N	T	N	N	P	N
<i>Truth value</i>	2.43	3.75	5.72	3.90	5.40	4.19	2.99	5.24	5.51
<i>Attempted manipulation</i>	7.08	6.30	4.01	6.10	4.37	5.68	6.19	4.84	4.05
<i>Passenger</i>	2.28	3.04	4.39	2.82	3.10	3.62	2.24	3.34	4.11
<i>Change in the respondent's opinion</i>	2.39	2.67	3.72	2.74	3.39	3.20	2.45	3.22	4.19
<i>Encouragement for the respondent to take action</i>	1.99	2.46	3.61	2.52	3.02	3.10	2.32	3.03	4.04
<i>Change in other people's opinions</i>	5.29	5.56	5.76	5.62	5.40	5.76	5.30	5.74	5.92
<i>Encouraging others to take action</i>	5.01	5.19	5.65	5.33	5.30	5.60	5.25	5.71	5.92
<i>Diligence</i>	4.60	4.92	5.00	5.54	6.21	5.17	4.97	5.37	5.78
<i>Good Intentions</i>	2.98	3.21	5.54	3.72	5.41	4.48	3.68	5.08	5.88
<i>Group interests</i>	5.73	5.44	4.35	5.60	5.26	5.11	5.38	5.47	4.25
<i>Fact-based</i>	2.61	3.56	5.32	3.85	5.40	4.10	3.24	4.86	5.37
<i>Based on rumors, superstitions, or myths</i>	5.73	5.18	4.26	5.22	4.06	5.17	5.45	4.42	4.31
<i>Accountability (ability to verify/explain)</i>	3.11	3.41	4.45	3.73	5.21	3.88	3.35	4.63	4.59

Average rating of posts (the higher the value, the higher the aggregate level of agreement)

The greatest differences in the ratings of true and false posts are found precisely in the questions regarding truthfulness (the difference in average values is **1.66**) and attempts to manipulate post (-**1.49**). This means that respondents more often label false posts as deceptive and manipulative than true posts. For the other evaluation criteria, the differences between true and false posts are smaller.

	<i>True: average</i>	<i>False: average</i>	<i>difference</i>
<i>Truthfulness</i>	5.46	3.80	1.66
<i>Attempt at manipulation</i>	4.41	5.90	-1.49
<i>Personal</i>	3.61	3.02	0.59
<i>Change in the respondent's opinion</i>	3.44	2.94	0.50
<i>Encouragement for the respondent to take action</i>	3.22	2.74	0.48
<i>Change in other people's opinions</i>	5.63	5.57	0.06
<i>Encouraging others to take action</i>	5.55	5.38	0.17
<i>Diligence</i>	5.53	5.16	0.37
<i>Good Intentions</i>	5.34	3.99	1.35
<i>Group Interests</i>	5.03	5.25	-0.22
<i>Fact-based</i>	5.19	3.79	1.41
<i>Based on rumors, superstitions, or myths</i>	4.25	5.18	-0.93
<i>Accountability (verifiability/explanation)</i>	4.76	3.68	1.08

As indicated by the following Q-Q plot, the distribution of differences between the mean values of true and false posts is not entirely normal, but it is close to normal. This is evident from the distribution of values around the trend line. Given the small number of these values (13) and the fact that these are two different conditions tested on the same subjects, we will use the Wilcoxon signed-rank test to assess the statistical significance of the difference between the means of true and false posts, as this test is sensitive even with a small sample size.



The p-value for a two-tailed test is **0.116**. This is higher than the standard significance level of 0.05. **Therefore, the difference between the means of the two groups is not statistically significant.** Based on the test, we cannot confirm that there is a statistically significant difference in the evaluation of true and false posts. However, even if the difference is not statistically significant, it may still be practically significant. After all, the test result may be due to the small number of values tested. It should also be noted that each of the tested values represents slightly different information. **While the overall evaluation of the posts is not statistically significant, the evaluation of individual categories is meaningful**, particularly in assessing the truthfulness of the posts and their manipulative nature.

Attribution and the Influence of Information Sources

Perceptions of a post on a social media platform are also reflected in who people consider to be the author or disseminator of such a post. Respondents were therefore asked the following question for each post presented: “Who do you think is most likely behind the dissemination of this message?” Each respondent could select multiple answers. The options provided were:

- Social media users
- Internet trolls / individuals or groups seeking to cause chaos
- Interest groups / lobbyists
- Scientists / experts
- Specialists not recognized by the mainstream scientific community
- People coping with illness (patients)
- Fraudsters, charlatans
- Companies or entrepreneurs seeking to profit from product sales
- Foreign countries, foreign agencies

Most often, respondents identified regular social media users as the spreaders of posts (47%). In the case of false statements, they also very often identified so-called internet trolls as likely spreaders (35%). This is particularly noteworthy when compared to true posts, which only 18% of respondents attribute to “trolls.” In the case of scientists and experts, the situation is reversed. Respondents are significantly more likely to identify them as the spreaders of true posts (32%) than of false ones (19%). There is also a significant difference in the case of fraudsters and charlatans. Twenty-nine percent of respondents identified them as the spreaders of false messages, while only 17% of respondents selected them for true messages. A noticeable difference in the perception of the authors of true and false messages regarding health topics is also evident among the least frequently selected actors (11%), namely foreign countries and foreign (security) services. In the case of true posts, 6% of respondents selected these actors, while for false posts, the figure was 14%. It is clear that respondents are significantly more likely to identify problematic actors as the sources of false or disinformation-based health-related messages than they are for true messages. Conversely, according to respondents, true messages are significantly more often disseminated by individuals with high social standing, particularly scientists and experts.

<i>Post</i>	1	2	3	4	5	6	7	8	9
<i>True/False post</i>	N	N	P	N	T	N	N	P	N
<i>Social media users</i>	42.1%	43.1%	53.4%	42.1%	33.1%	53.8%	51.6%	54.3%	51.5%
<i>Internet trolls / causing chaos</i>	48.6%	44.0%	18.9%	41.8%	19.8%	28.8%	30.6%	14.8%	18.6%
<i>Interest groups / lobbyists</i>	31.1%	31.7%	27.3%	34.3%	29.3%	30.2%	24.5%	33.7%	16.9%
<i>Scientists / Experts</i>	12.5%	15.4%	30.4%	22.2%	48.2%	16.6%	11.2%	16.1%	38.3%
<i>Specialists, unrecognized scientists</i>	7.2%	17.3%	11.5%	28.0%	20.2%	23.2%	17.1%	14.2%	17.9%
<i>People coping with illness (patients)</i>	9.8%	9.3%	18.2%	17.9%	18.9%	15.8%	25.6%	18.1%	30.0%
<i>Fraudsters, charlatans</i>	36.5%	29.5%	15.5%	26.2%	16.1%	27.8%	39.5%	18.5%	16.1%
<i>Profit-driven companies or entrepreneurs</i>	26.7%	14.2%	21.8%	20.9%	21.4%	24.7%	26.1%	38.1%	9.5%
<i>Foreign countries, foreign services</i>	34.3%	19.6%	4.3%	14.6%	8.6%	4.6%	6.9%	3.9%	3.4%

Relative proportion of respondents who consider the presented actors to be the disseminators of the post

We will now compare the average values of true and false posts with the overall average for each disseminator separately using one-sample t-tests. The results show significant differences in some groups. Respondents identified post disseminators as internet trolls or instigators of chaos statistically significantly more often in the case of false posts. For true posts, this was statistically significantly less frequent. A significant difference is also evident in the “scientists/experts” category. In the case of true posts, respondents identified them as spreaders at an above-average rate, whereas in the case of false posts, they did so at a below-average rate.

	<i>True:</i> <i>average</i>	<i>False:</i> <i>average</i>	<i>Overall</i> <i>average</i>
<i>Social media users</i>	46.9%	47.4%	47.2%
<i>Internet trolls / causing chaos</i>	17.9%	35.4%	29.5%
<i>Interest groups / lobbyists</i>	30.1%	28.1%	28.8%
<i>Scientists / Experts</i>	31.6%	19.3%	23.4%
<i>Specialists (non-recognized scientists)</i>	15.3%	18.4%	17.4%
<i>People coping with illness (patients)</i>	18.4%	18.1%	18.2%
<i>Fraudsters, charlatans</i>	16.7%	29.3%	25.1%
<i>Profit-driven companies or entrepreneurs</i>	27.1%	20.4%	22.6%
<i>Foreign countries, foreign services</i>	5.6%	13.9%	11.1%

* *Values in blue* are statistically significantly higher than the overall average.

* *Values in bold and italics* are statistically significantly lower than the overall average.

Row-mean values for individual presumed message disseminators

Fraudsters and charlatans were significantly more likely to be message disseminators than the overall average for this option in the case of false posts. Conversely, they were significantly less likely to be disseminators of true posts. Foreign countries and foreign agencies were behind the dissemination of posts more often than average in the case of false messages and less often than average in the case of true messages. Respondents thus typically attribute the dissemination of false posts to negative actors, while attributing the dissemination of true posts to positive ones. However, when it comes to sharing messages, they do not perceive any difference in financial interests between true and false posts, as evidenced by statistically insignificant differences in the “Interest groups/lobbyists” response and a significant difference only for false posts in the “Profit-seeking companies or entrepreneurs” response.

Interaction Analysis: Netnography

Each participant could interact with any number of posts. Available interactions included: liking (marking as favorite), disliking (marking as unfavorite), sharing, reporting, and commenting. However, it was not possible to both like and dislike a single post at the same time. Participants could therefore, for example, share, like, and report a post. The only restriction was the minimum number of interactions a participant had to perform: 4 likes/dislikes, 3 shares, 2 comments; reporting posts was not required.

It is evident that the true posts received a significantly higher rate of “likes,” i.e., positive reactions. For clarity, we note that the respondents did not know which posts were true and which were not. The exception is Post No. 8, which was “liked” by approximately one-third of the respondents (30.4%). Even for this post, however, the “like” rate is relatively high. A similar situation is also evident in the distribution of post shares. Among the true statements, the share rate is again lower for the eighth post. Among the false statements, the ninth post recorded a higher rate of both shares and “likes.” The situation is the opposite for “dislikes.” The lowest rate of dislikes was recorded for the true posts and post 9, while the highest was for post 2. Respondents most frequently reported post number 1. Among the true posts, the reporting rate was the lowest. Respondents commented primarily on the first post. The fewest people commented on posts 7 and 8, and they did so at exactly the same rate. Although the wording of the comments cannot be quantified, it nevertheless holds significant informational value for the analysis. In particular, it reveals the ambivalence in the perception of the messages and the ambiguity regarding their nature as disinformation. For example, the first post elicited the following reaction: “Russian herbalists are the best.” We also noted the following regarding the same post: “Russia lies—never trust them.” And thirdly: “It would be great, but it’s unrealistic.” The text posts thus demonstrate the complexity of perceptions of the same text. Subjectively, we perceive only one possible interpretation of a post. However, as the comments show, people can perceive it positively, negatively, or neutrally.

		Likes	shares	dislikes	reports	comments
Post 3	Post 1 N	208	109	415	180	427
	%	26.8%	14.0%	53.4%	23.2%	55.0%
	Contribution 2 N	174	140	462	138	298
	%	22.4%	18.0%	59.5%	17.8%	38.4%
	N	403	301	197	48	362
	%	51.9%	38.7%	25.4%	6.2%	46.6%
	Post 4 N	177	204	367	149	281
	%	22.8%	26.3%	47.2%	19.2%	36.2%
	N	378	306	155	69	263
	%	48.6%	39.4%	19.9%	8.9%	33.8%
Post 5	Post 6 N	258	251	247	74	308
	%	33.2%	32.3%	31.8%	9.5%	39.6%
	Post 7 N	143	174	261	172	250
	%	18.4%	22.4%	33.6%	22.1%	32.2%
Post 9	Post 8 N	236	248	158	66	250
	%	30.4%	31.9%	20.3%	8.5%	32.2%
	N	253	313	117	81	295
	%	32.6%	40.3%	15.1%	10.4%	38.0%

Interaction with posts; whole numbers and relative shares of respondents; true statements in blue

		Likes	shares	dislikes	reports	comments
True	N	339	285	170	61	292
	%	44%	37%	22%	8%	38%
False	N	202	199	312	132	310
	%	26%	26%	40%	17%	40%

Interaction with posts; average values for true and false posts

Conclusions and Interpretation

The research showed that respondents are able to distinguish between true and false health-related posts with some degree of success, even though their certainty is not perfect. The average rating for true online posts as trustworthy was 5.46 (on a scale of 0 to 10), while false posts scored only 3.80. The greatest difference was observed in the perception of manipulateness: false posts were considered manipulative with an average rating of 5.90, while true posts were rated only 4.41. The exception was a post claiming that “coughing can reduce the impact of a heart attack”—this was mistakenly rated as true (5.51) and less manipulative (4.05), highlighting weaknesses in recognizing even seemingly credible disinformation.

As for sources of information, respondents most often identified internet trolls (35.4%) and scammers or charlatans (29.3%) as the spreaders of false posts. In contrast, true posts were primarily associated with scientists and experts (31.6%). An interesting finding is that foreign states and their intelligence services were considered to be the sources of false messages more than twice as often (13.9%) as of true ones (5.6%). These results suggest that the public tends to view problematic actors as the sources of false messages.

Respondents’ interactions with the posts revealed other interesting patterns. True posts received 44% of the “likes” and were shared in 37% of cases, while false posts were more frequently “disliked” (40%) and reported (17%). Comments on individual posts showed how diversely the same content can be interpreted—for example, one post received completely contradictory reactions, ranging from support to outright rejection.

Experiences with serious health issues among respondents’ acquaintances also played a significant role. More than half of the respondents (58%) knew someone who had contracted a serious illness that doctors were unable to treat. These respondents may have been more susceptible to accepting narratives that cast doubt on medical science, underscoring the importance of public education and critical thinking regarding health information.

Overall, the study showed that although the public has a basic ability to recognize misinformation, there are significant gaps that can be exploited. It is therefore essential to strengthen education in the critical evaluation of information and to promote responsible content sharing so that society is better protected against the spread of false and potentially dangerous messages.

Summary

This study analyzes respondents' ability to recognize and evaluate health-related disinformation in online posts. The research sample consisted of 777 questionnaires, which included demographic data, sources of health information, experiences with serious health problems in their community, and interactions with nine different online posts. Each post was evaluated according to 13 dimensions of misinformation, including truthfulness, manipulateness, and source credibility. Respondents also identified the likely disseminators of individual posts and interacted with them through likes, dislikes, shares, reports, and comments. The aim of the study was to determine how effectively the public can identify and reject disinformation, and to identify key factors that influence the perception and spread of such content.

The research showed that respondents are able to distinguish between true and false health-related posts with some success, even though their certainty is not perfect. The average rating of true online posts as credible was 5.46 (on a scale of 0 to 10), while false posts scored only 3.80. The greatest difference was observed in the perception of manipulateness: false posts were rated as manipulative with an average score of 5.90, while true posts were rated as such only at 4.41. The exception was a post claiming that “coughing can reduce the impact of a heart attack”—this was mistakenly rated as true (5.51) and less manipulative (4.05), highlighting weaknesses in recognizing even seemingly credible disinformation.

As for sources of information, respondents most frequently identified internet trolls (35.4%) and scammers or charlatans (29.3%) as the spreaders of false posts. In contrast, true posts were primarily associated with scientists and experts (31.6%). An interesting finding is that foreign states and their intelligence services were considered to be the sources of false messages more than twice as often (13.9%) as of true ones (5.6%). These results suggest that the public tends to view problematic actors as the sources of false messages.

Respondents' interactions with the posts revealed other interesting patterns. True posts received 44% of the “likes” and were shared in 37% of cases, while false posts were more frequently “disliked” (40%) and reported (17%). Comments on individual posts showed how diversely the same content can be interpreted—for example, one post received completely contradictory reactions, ranging from support to outright rejection.

Experiences with serious health problems among respondents' acquaintances also played a significant role. More than half of the respondents (58%) knew someone who had contracted a serious illness that

doctors were unable to treat. These respondents may have been more susceptible to accepting narratives that cast doubt on medical science, underscoring the importance of public education and critical thinking regarding health information.

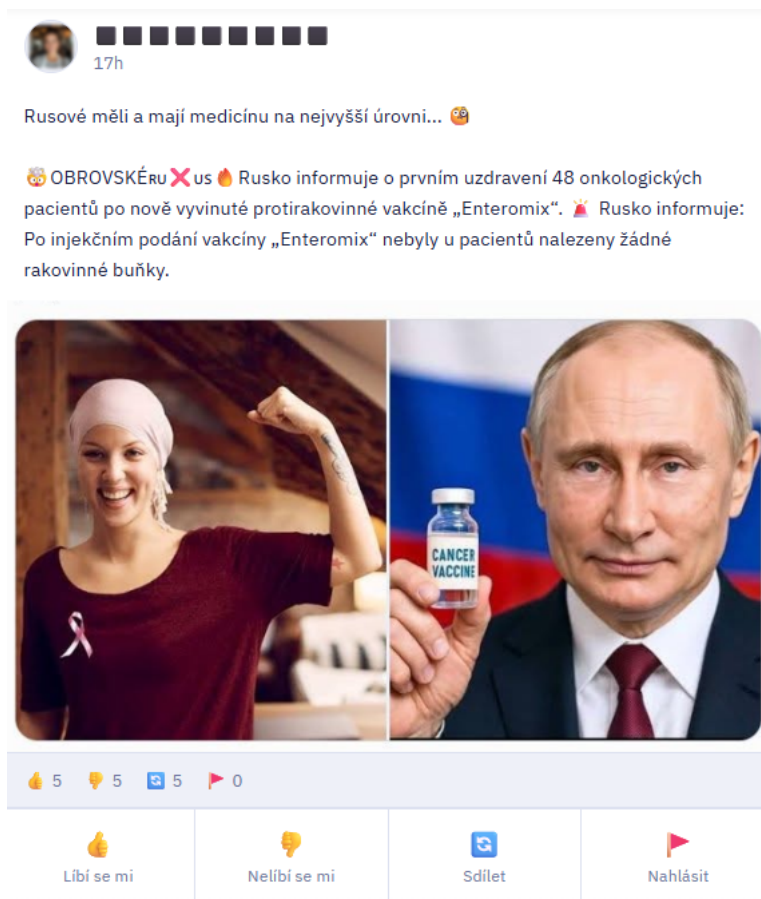
Overall, the study showed that although the public has a basic ability to recognize misinformation, there are significant gaps that can be exploited. It is therefore essential to strengthen education in the critical evaluation of information and to promote responsible content sharing so that society is better protected against the spread of false and potentially dangerous messages.



Appendix: Research Tool

Posts Used in the Respondent Survey

Post 1:



Post 2:



17h

Lidem je tak těžké uvěřit, že někdo na tomto světě je schopen nám něco takového dělat.

Lidi, kteří o tom mluví, raději považují za idioty, než aby sami objevili pravdu a usilovali o změnu toho, co se děje.




Během Eugenické rady WHO v roce 2009 Henry Kissinger řekl:
„Když stádo přijme povinné očkování, hra skončí!
Prijmou všechno – povinné dárčovství krve nebo orgány – pro ‚dobro všech‘.“
Můžeme geneticky modifikovat děti a sterilizovat je pro ‚společné dobro‘. Ovládej mysl ovci a ovládáš stádo. Výrobci vakcín vydělají miliardy a mnozí z vás v této místnosti jsou dnes investory.
Je to výhra pro obě strany! Proředíme stádo a ještě se nám to vyplatí jako služby ničení.“

👍 5

👎 5

💬 5

🚩 0



Libí se mi



Nelíbí se mi



Sdílet



Nahlásit

Post 3:



17h

Ovocné šťávy

Mohou snižovat vstřebávání léků.

V některých případech dokonce až o polovinu.




👍 5

👎 5

💬 5

🚩 0



Libí se mi



Nelíbí se mi



Sdílet



Nahlásit

Post 4:



17h

⚡ Šokující studie spojující vakcíny proti COVID-19 s rakovinou byly „cenzurovány“ tajemným kybernetickým útokem.

Začátkem tohoto měsíce byl zveřejněn globální přehled hlášených případů rakoviny po očkování proti COVID-19, ale ve stejnou dobu se lékařský časopis, který jej publikoval, stal obětí kybernetického útoku, v jehož důsledku byla stránka vypnuta. Studie vyšla 3. ledna v recenzovaném časopise Oncotarget a jejími autory byli vědci zabývající se výzkumem rakoviny z Tufts University v Bostonu a Brown University na Rhode Islandu.

V přehledu vědci analyzovali 69 dříve publikovaných studií a kazuistik z celého světa a identifikovali 333 případů, kdy byla rakovina nově diagnostikována nebo se prudce zhoršila během několika týdnů po očkování proti COVID-19.

Přehled zahrnoval studie z let 2020–2025 a obsahoval zprávy z 27 zemí, včetně Spojených států, Japonska, Číny, Itálie, Španělska a Jižní Koreje. Žádná ze zemí nedominovala, což naznačuje, že pozorované vzorce byly hlášeny po celém světě. Autoři zdůraznili, že přehled poukazuje na vzorce pozorované v existujících zprávách, ale nestanovuje přímou příčinnou souvislost mezi očkováním a rakovinou. Několik dní po publikaci se webová stránka Oncotarget stala nedostupnou a zobrazovala chybu „bad gateway“, kterou časopis připsal probíhajícímu kybernetickému útoku.

Časopis incident nahlásil FBI a upozornil na narušení fungování internetového servisu.

V příspěvcích na sociálních sítích jeden z autorů článku, dr. Wafik El-Deiry z Brown University, vyjádřil znepokojení, že útok narušil přístup k nově publikovanému výzkumu.

„Cenzura je ve Spojených státech v plné síle a vstoupila do medicíny ve velkém, hrozném stylu“ – napsal El-Deiry v příspěvku na X.

<https://www.dailymail.co.uk/.../cancer-Covid-vaccination...>



Post 5:



17h

POLSKÝ PRŮLOM V LÉČBĚ SARKOMŮ: CO STOJÍ ZA STUDIÍ EFTISARC-NEO?

Sarkomy měkkých tkání patří k nejvíce zanedbávaným oblastem v onkologii. Tvoří méně než jedno procento všech onkologických diagnóz, přibližně 1 500 případů ročně v Polsku. Pro farmaceutický průmysl je to příliš malý trh na to, aby investoval desítky milionů do vývoje nových terapií. Pro pacienty to znamená nedostatek možností, když standardní léčba selže. Po léta zůstával standardem, zjednodušeně řečeno, chirurgický zákrok, chemoterapie založená na antracyclinech a ifosfamidu a v některých případech radioterapie.

👉 Hypotéza, která změnila přístup

Tým z Národního onkologického institutu ve Varšavě pod vedením MUDr. Katarzyny Kozak a MUDr. Pawła Sobczuka položil zásadní otázku: proč imunoterapie, která způsobila revoluci v léčbě melanomu, rakoviny plic nebo rakoviny ledvin, u sarkomů prakticky nefunguje?

Pembrolizumab v monoterapii vykazoval určitou aktivitu, ale bez spektakulárních výsledků známých u jiných nádorů. Analýza literatury a klinická pozorování vedly k hypotéze: buňky sarkomů vykazují mechanismy imunitního úniku — nízkou imunogenicitu, expresi kontrolních bodů a neúčinnou prezentaci antigenů. Imunitní systém je jednoduše nevidí, i když odblokuje jeden receptor.

Co kdyby se místo jednoho zásahu použily tři komplementární mechanismy současně?

👉 Protokol EFTISARC-NEO: triple combo

Protokol spojuje tři prvky způsobem, který dosud nebyl u sarkomů nikdy testován:

- ♦ Pembrolizumab — protilátka blokující receptor PD-1 na T-lymfocytech. Obnovuje jejich

cytotoxickou aktivitu a odblokovává přirozenou schopnost imunitního systému rozpoznávat nádorové buňky.

- ♦ Eftilagimod alfa — agonista receptoru LAG-3. Aktivuje buňky prezentující antigen a

posiluje imunitní odpověď. Zvyšuje počet a účinnost „vojáků“ imunitního systému.

- ♦ Předoperační radioterapie — nejen přímo ničí rakovinné buňky, ale také vyvolává imunogenní buněčnou smrt. Uvolňuje nádorové antigeny, které dále stimulují imunitní systém. Vzniká synergický efekt s imunoterapií.

Klíčovým prvkem protokolu je načasování. Využívá se období čekání na operaci, obvykle dva až čtyři týdny po diagnóze, k aktivní terapeutické intervenci. Jde o koncept „window of opportunity“ — okna příležitosti. Místo pasivního čekání na zákrok pacient dostává kombinaci, která připravuje půdu pro operaci.

👉 Co se hledalo a co se našlo?

Hlavním koncovým bodem studie byla patologická odpověď. Po podání terapie a provedení operace patolog hodnotí odebraný materiál pod mikroskopem: kolik nádorových buněk přežilo? Čím méně, tím lepší prognóza pro pacienta. Je to jeden z nejlepších biomarkerů v onkologii.

Studie byla navržena jako jednoramenná fáze II se 48 pacienty. Všichni dostali protokol podle předpokladů a následně podstoupili chirurgickou resekci. Materiál hodnotili zkušení patologové podle standardizovaných kritérií.

Výsledky? Patologická odpověď ve studii EFTISARC-NEO převyšuje všechny dosavadní zprávy týkající se imunoterapie u sarkomů. Polovina pacientů dosáhla úplné patologické odpovědi — nulový počet živých nádorových buněk v odstraněné tkáni. Ve srovnání s dosavadními terapiemi jde o průlom.

Bezpečnostní profil odpovídal očekáváním pro použité terapie. Nežádoucí účinky zahrnovaly především únavu, kožní změny a ojedinělé případy endokrinních poruch. U většiny pacientů žádný z nich nevedl k nutnosti přerušit protokol.

👉 Mezinárodní reakce

Výsledky byly prezentovány na kongresech ESMO a CTOS — nejdůležitějších akcích v onkologii — a reakce vědecké komunity byla jednoznačná: protokol si zaslouží



ověření v randomizované studii.

Plánuje se mezinárodní fáze III s účastí více než 200 pacientů v šesti evropských zemích.

Randomizace bude jedna ku jedné: rameno A dostane pembrolizumab plus eftilagimod plus radioterapii, rameno B standardní chemoterapii plus radioterapii. Koncové body: přežití bez progresu, celkové přežití a kvalita života.

Pokud výsledky potvrdí pozorování z fáze II, důsledky mohou zahrnovat registraci pembrolizumabu v nové indikaci, první registraci eftilagimodu alfa a změnu standardu léčby sarkomů směrem k předoperační imunoterapii. Potenciálně jde o nový paradigmat v chirurgické onkologii.

👉 Role veřejného financování

To vše bylo možné díky Agentuře pro lékařský výzkum, která projekt financovala částkou přibližně 8 milionů zlotých z veřejných prostředků. Bez tohoto financování by se studie neuskutečnila.

Žádná farmaceutická společnost nepovažovala sarkomy za dostatečně atraktivní trh, ale model veřejného financování umožňuje zkoumat oblasti, které průmysl z ekonomických důvodů přehlíží. Sarkomy jsou jedním příkladem, ale ne jediným.

Mnoho vzácných nádorů a netypických indikací vyžaduje právě takový přístup. EFTISARC-NEO ukazuje, že polská onkologie má kompetence provádět výzkum na nejvyšší úrovni. Tým nejen navrhl a realizoval protokol, ale také koordinoval mezinárodní spolupráci pro fázi III. Polsko přestává být pouze příjemcem výsledků cizích studií a stává se jejich spoluvůdcem.

Zdroje:

- ♦ ClinicalTrials.gov: NCT06128863
- ♦ Agentura pro lékařský výzkum: <https://abm.gov.pl/.../3182,Innowacyjna-terapia-w...>
- ♦ Prezentace na kongresech ESMO a CTOS

Zobrazit méně



Post 6:



17h

Největším podvodem dietní idiocie je namluvit zaslepeným, omámeným lidem, že tloustnutí závisí na množství zkonsumovaných kalorií.

Je to absurdní lež, které odporuje celá okolní příroda.

Žádné zvíře v přírodě nepočítá kalorie, aby bylo štíhlé.

Každé zvíře se při každé příležitosti nají dosyta. Sní tolik, kolik je jen schopné pojmout — „až po okraj“.

Proto neexistují obézní lvi, i když mají jídla dostatek. Neexistují obézní vlci ani srny, i když mají potravu kam až oko dohlédne, a k tomu ještě krmelce.

Neexistují obézní veverky, i když si na zimu shromažďují mnohem více potravy, než jsou schopné sníst.

Neexistují obézní vrabci nebo sýkory, které by ležely tlusté pod krmítkem, kde je tisíckrát více zrní, než jsou schopné sníst.

Neexistují obézní bizoni, mývalové, rosomáci, volavky, jeřábi ani čápi, kteří by seděli v hníždě a nemohli odletět kvůli obezitě.

Proč?

Protože konzumují potravu, pro kterou jsou jejich organismy stvořené, a nezáleží na množství kalorií, které snědí, ale na množství kalorií, které vstřebají.

A vstřebávání v každém přírodním organismu je regulováno POTŘEBOU, nikoli nabídkou.

Potřeba energie reguluje množství vstřebávání této energie.

Dokud konzumujeme potravu, k jejímuž jedení jsme fyziologicky přizpůsobeni.

NEEXISTUJE NEMOC „BÍLKOVINÓZA“ — protože lidský organismus dokonale reguluje množství vstřebané živočišné bílkoviny a v krvi nikdy nevzniká choroboplodný nadbytek bílkovin.

NEEXISTUJE NEMOC „TUKÓZA“ — protože lidský organismus dokonale reguluje množství vstřebaného živočišného tuku a v krvi nikdy nevzniká choroboplodný nadbytek tuků.

EXISTUJE NEMOC CUKROVKA — protože lidský organismus nemá schopnost omezovat vstřebávání sacharidů a po takovém jídle v krvi stoupá hladina glukózy, inzulinu a dochází k narušení hladin mnoha hormonů, což VŽDY ve výsledku vede ke glykaci, degeneraci a nemocem.

Zdravý trávicí systém člověka, který se stravuje lidským způsobem — bez účasti rostlin — NIKDY NEZPŮSOBÍ OBEZITU. Neexistuje taková fyziologická možnost.

Neexistuje dokonce ani mechanismus přeměny zkonsumovaného tuku na nadměrnou tukovou tkáň.

Zdravě, tedy bezrostlinně, se stravující člověk NIKDY NEBUDE OBÉZNÍ, pokud má funkční, nedysfunkční trávicí systém.

Stejně jako všechna zvířata žijící v přírodě.

Zdravím při konzumaci 5000 až 5800 kcal denně už 4 roky 💎💎 Text z grafiky dole:

Největším podvodem dietní idiocie je namluvit zaslepeným lidem, že musejí počítat kalorie, aby nepřibrali.

Je to absurdní lež, které odporuje celá příroda.

Žádné zvíře nepočítá kalorie, aby bylo štíhlé.





Post 7:

 17h

„Popíšu vám náš příběh s amanitou. Moje tchyně, 73 let, před 4 lety onemocněla leukémií. V Polsku se leukémie léčí pouze chemoterapií; do určitého okamžiku se nic nedělá, jen se čeká, až výsledky překročí příslušnou hranici. Moje tchyně byla k této hranici už velmi blízko. Ani jedna z nás nechtěla, aby brala chemoterapii. V té době jsem ještě o amanitě nevěděla. Ale hodně jsem četla o alternativních metodách léčby a šly jsme cestou CBD olejů. Užívala tento 30% olej a krevní výsledky ukazovaly, že leukémie neroste, ale maličko, po troškách klesá. V prosinci 2022 byla tchyni diagnostikována rakovina prsu a lymfom. Už nějakou dobu jsem se velmi intenzivně zajímala o alternativní metody léčby, protože můj syn měl neurologické poruchy po očkování. Už jsem od několika známých věděla, že amanita funguje, ale nemohla jsem tchyni říct, že ji podám muchomůrku červenou, protože by to v životě nevzala. Nějak se stalo, že jsem narazila na Mateusze z kanálu Amanita Muscaria Czerwone Kapelusze, od kterého jsem dostala jeho zásobu amanity. Klobouky jsem rozebrala v mlýnku, koupila prázdné kapsle a amanitu do nich zabalila. Kapsle jsem dala do obalu po doplňku stravy mého syna. Moje tchyně nikdy neměla ráda léky; když jsem jí mluvila o doplňcích, klepala si na čelo. Tentokrát už byla tak vystrašená, že bez řečí polykala kapsle 2x denně po dobu 2 měsíců. K tomu jsem jí koupila mladý zelený ječmen a chlorellu, typicky na detoxikaci organismu. A teď pozor! V květnu měla vyšetření u onkologa a hematologa a všechny výsledky ukázaly, že už tam nic není!!! Vyšetřovali ji dvakrát, protože si mysleli, že jde o chybu přístroje nebo laboratoře. Potřetí jela sama na další vyšetření, protože tomu nevěřila. Leukémie, rakovina i lymfom zmizely!!! Za dva měsíce!! Dva! Oba lékaři řekli, že nevědí, jak se to stalo, že je to zázrak a že se má radovat. Tchyně hematologovi řekla, že užívala doplňky stravy, ale on odpověděl jen, že tím to určitě nebylo, protože jeho o tom neučili. Každopádně o tom píšu, protože možná je někdo v nouzi a přemýšlí, váhá, není si jistý. Já pevně věřím, že to byla amanita, která postavila moji tchyni na nohy, a že nebyť amanity, pravděpodobně by skončila v dřevěné bedně. Ačkoli ona pořád neví, co jsem jí do těch kapslí dala.“

— Marta

Zdroj:

— Martiin komentář ze skupiny Amanity na Telegramu

#ToSkarb <https://t.me/AmanitaMuscariaCzerwoneKapelusze/11148>

Kniha Amanita Muscaria PDF ke stažení — přeložená do polštiny

<https://t.me/AmanitaMuscaria40i4/50> Mikrodávkování amanity zlepšuje činnost šišinky, jejíž funkce je klíčem k dosažení plného zdraví a vědomí. Proto zlepši svou mysl a šišinku a regeneruj ji pomocí kombinace amanity a korálovce ježatého, dostupné v kapslích.

Osobní kontakt:

@AmanitaMuscaria8888 Stránka  Telegram <https://t.me/AmanitaMuscaria40i4>

Skupina:

Amanitová skupina lidí, kteří se odváží Vědět a žít život a zdraví naplno.  Pozor!

Mohou nakazit pozitivní energií, vědomostmi a nádhernými zkušenostmi.    

     <https://t.me/AmanitaMuscariaCzerwoneKapelusze>

#AmanitaMuscariaLéčíPřes200Nemocí #ObjevSíluPřírody

#BudZdrávProtožeVeZdravémTěleJeZdravýDUCH #ŠířímeVědomosti

#ObjevujemePravdu #KrálovnaZdravíAmanita #MikrodávkováníAM

#MěnímeSvětNaZdravý Zobrazit méně



MUCHOMŮRKY

Červené



Vědomí 44

v mikrodávkách pro zdraví;



**Ministerstvo
zdravotnictví**

- Dodávají energii, posilují tělo a zостřují smysly.
- Zlepšují kondici a psychickou pohodu.
- Jemně uvolňují a zvyšují výkonnost. Umožňují být aktivní bez nervozity a uvolněný bez lenivosti.
- Spouštějí samoléčebné procesy organismu.
- Díky bohatství na vitamín D posilují imunitu a chrání před depresí.
- Uvolňují emocionální blokády uvízlé v těle.
- Odstraňují strachy.
- Zvracejí procesy stárnutí mozku — potvrzeno vědeckými studiemi.
- Projasňují myšlenky.
- Diskrétně, elegantně a s grácií probouzejí DUCHA a rozšiřují vědomí.
- Navracejí prvotní radost. Dokážou způsobit, že život znovu získá barvy a půvab.

👍 5

👎 5

💬 5

🚩 0



Líbí se mi



Nelíbí se mi



Sdílet



Nahlásit

Napište komentář k tomuto příspěvku...

Post 8:



Post 9:



17h

JAK PŘEŽÍT INFARKT, KDYŽ JSTE SAMI?

Protože mnoho lidí prodělá infarkt bez pomoci, je dobré vědět, že člověk, jehož srdce bije nepravidelně, má závratě, cítí se vyčerpaný a má k dispozici asi 10 sekund, než ztratí vědomí.

Nicméně si můžete pomoci a prodloužit tento čas pomocí dýchání a kašle, které by se měly opakovat nepřetržitě každé 2 sekundy, dokud nedorazí pomoc, nebo dokud člověk nepocítí, že srdce znovu bije normálně. Pomoci si lze hlubokým, energickým a neustále se opakujícím kašlem. Před každým kašlem je třeba se zhluboka nadechnout a kašlat tak, jako byste chtěli vykašlat hlen hluboko z plic.

Hluboký nádech přivádí kyslík do plic a pohyb spojený s kašlem stlačuje srdce a udržuje krevní oběh. Tlak způsobený takovým stlačováním srdce se může vrátit do normálu. Tímto způsobem mohou oběti infarktu dokonce dojít do nemocnice.

Řekněte o tom co největšímu počtu lidí. Podle kardiologa, pokud každý, kdo uvidí tento příspěvek, jej sdílí s 10 lidmi, budete si jisti, že zachráníte alespoň jeden život...

Místo sdílení pouze vtipů vás prosím, abyste sdíleli tuto informaci, která může některým lidem zachránit život.



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Líbí se mi



Nelíbí se mi



Sdílet



Nahlásit

Napište komentář k tomuto příspěvku...

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