Supplementary Materials

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Supplement A: Pre-registered Hypotheses and Results

Table S1: Pre-registered hypotheses and results

Experiment	Hypothesis	Supported
Experiment 1	1. Both the correcting disinformation and the low-expertise conditions will reduce the following relative to control:	
	a. Source credibility	Yes
	b. Feelings towards the source	Yes
	2. Correcting disinformation will lead to less reliance on new disinformation than the low-expertise condition	No
	3. Relative to control, both the correcting disinformation and the low-expertise conditions will reduce the individual components of	
	a. general credibility	Yes
	b. trustworthiness	Yes
	c. expertise	Yes
Experiment 2	1. All interventions will reduce the following more than the control condition:	
	a. Belief in disinformation	Yes
	b. Source credibility	Yes
	c. Feelings towards the source	Yes
	2. The combined condition will reduce the following relative to the correcting disinformation and low-expertise conditions	
	a. Belief in disinformation	No
	b. Source credibility	Yes
	c. Feelings towards the source	Yes
	3. Participants' CAMBI scores will positively correlate with the following at post-test:	
	a. Belief in disinformation	Yes
	b. Source credibility	Yes
	c. Feelings towards the source	Yes
	4. The natural treatments and holistic health subscales of the CAMBI — but not the "participation in treatment" subscale — will correlate with:	
	a. Belief in disinformation	
	b. Source credibility	Yes
	c. Feelings towards the source	Yes
	5. Participants' health literacy scores will positively correlate with the following at post-test:	Yes
	a. Belief in disinformation	
	b. Source credibility	Yes
	c. Feelings towards the source	No
	6. Participants' perceived closeness with cancer will be positively correlated with their belief in disinformation	No
		No
Experiment 3	1. All interventions will reduce the following more than the control condition	
	a. Belief in disinformation	Yes

b. Source credibility	Yes
2. After a one-week delay, significant differences between the intervention conditions and control will remain for	
a. Belief in disinformation	No
b. Source credibility	Yes
3. The conflict of interest intervention will reduce belief in disinformation more than the other interventions	No
4. There will be no difference between the low expertise condition and correcting disinformation condition at reducing belief in disinformation	Yes
5. The low expertise condition will be more effective than the correcting disinformation condition at reducing source credibility	Yes
6. Participants' belief in disinformation will be positively correlated with	
a. CAMBI scores	Yes
b. Vaccine hesitancy	Yes

Supplement B: Demographics

Table S2: Demographics of Experiment 1

Demographic	Total	Control	Correcting Disinformation	Low Expertise	ANOVA/ Chi-squared	*p*-value
Total *N*	301	101	101	99		
Age	*M* = 45.13 *SD* = 16.27	*M* = 45·05 *SD* = 15·83	*M*= 45.80 *SD* = 16.1	*M* = 44.4 *SD* = 16.8	$F(1,299) = 0.09$	.765
Gender	Males: 146 Females: 151 Non-binary 4	Males: 49 Females: 51 Non-binary: 1	Males: 49 Females: 50 Non-binary: 2	Males: 48 Females: 50 Non-binary: 1	$X^2(4) = .49$	.974
Education (1-6)	*M* = 4.30 *SD* = 1.27	*M* = 4.26 *SD*= 1.27	*M* = 4.39 *SD*=1.25	*M* = 4.26 *SD* = 1.29	$F(1,299) = 0.001$	.973
Partisanship (1-7)	*M* = 3.06 *SD* = 1.96	*M* = 3.10 *SD*=1.92	*M* = 3.11 *SD*=2.08	*M* = 2.98 *SD* = 1.88	$F(1,299) = 0.184$	.668

Note: For education: 1 = "Did not graduate from high school", 2 = High school graduate, 3 = Some college, no degree, 4 = 2-year college degree, 5 = 4-year college degree, and 6 = "Postgraduate degree (MA, MBA, MD, JD, PhD, etc.)". For partisanship:1 = "Strong Democrat", 2 = Weak Democrat, 3 = Independent closer to Democratic Party, 4 = No preference, 5 = Independent closer to Republican party, 6 = Weak Republican, and 7 = "Strong Republican".

Table S3: Demographics of Experiment 2

Demographic	Total	Control	Correcting Disinformation	Low Expertise	Combined	ANOVA/ Chi-squared	*p*-value
Total *N*	601	151	151	150	149		
Age	*M* = 45.2 *SD* = 16.2	*M*= 45.2 *SD*=16.0	*M*= 43.4 *SD*=16.2	*M*= 45.5 *SD*=16.1	*M*=46.8 *SD*=16.6	$F(1,599) = 1.27$	.261
Gender	Males: 284 Females: 302 Non-binary: 15	Males: 73 Females: 77 Non-binary: 1	Males: 64 Females: 83 Non-binary: 4	Males: 73 Females: 71 Non-binary: 6	Males: 74 Females: 71 Non-binary: 4	$X^2(6) = 5.61$	.468
Education (1-6)	*M* = 4.28 *SD* = 1.33	*M*=4.34 *SD*=1.29	*M*= 4.42 *SD*=1.31	*M*=4.05 *SD*=1.36	*M*=4.30 *SD*=1.34	$F(1,599) = 1.06$	.303
Partisanship (1-7)	*M* = 2.95 *SD* = 1.94	*M*=2.98 *SD*=1.96	*M*=2.92 *SD*=1.87	*M*=2.87 *SD*=1.88	*M*=3.01 *SD*=2.07	$F(1,599) = 0.002$	.965
Income	*M* = 6.25 *SD* = 3.17	*M*=6.16 *SD*=3.10	*M*=6.45 *SD*=3.26	*M*=5.89 *SD*=2.99	*M*=6.49 *SD*=3.34	$F(1,599) = .139$	.710

Note: For education: 1 = "Did not graduate from high school", 2 = High school graduate, 3 = Some college, no degree, 4 = 2-year college degree, 5 = 4-year college degree, and 6 = "Postgraduate degree (MA, MBA, MD, JD, PhD, etc.)". For partisanship:1 = "Strong Democrat", 2 = Weak Democrat, 3 = Independent closer to Democratic Party, 4 = No preference, 5 = Independent closer to Republican party, 6 = Weak Republican, and 7 = "Strong Republican".

Table S4: Demographics Experiment 3

	Total	Control	Correcting disinformation	Low expertise	Conflict of Interest	ANOVA/ Chi-squared
Total *N*	720	178	180	180	182	
Age	*M* = 39.1 *SD* = 12.8	*M* = 39.9 *SD* = 13.0	*M* = 38.5 *SD* =13.0	*M* = 38.3 *SD* = 12.2	*M* = 39.8 *SD* = 13.0	$F(1, 718) = .013$, $p = .908$
Gender	Males: 353 Females: 349 Non-binary/ Prefer not to say: 18	Males: 85 Females: 89 Non-binary/ Prefer not to say: 4	Males: 85 Females: 93 Non-binary/ Prefer not to say: 2	Males: 98 Females: 79 Non-binary/ Prefer not to say: 3	Males: 85 Females: 88 Non-binary/ Prefer not to say: 9	$X^2(6) = 8.98$, $p = .174$
Education(1-6)	*M* = 3.87; *SD* = 1.35	*M* = 3.87; *SD* = 1.34	*M* = 3.81; *SD* = 1.4	*M* = 3.83; *SD* = 1.3	*M* = 3.96; *SD* = 1.35	$F(1, 718) = .398$ $p = .531$
Partisanship (1-7)	*M* = 3.86 *SD* = 2.08	*M* = 3.83 *SD* = 2.02	*M* = 3.82 *SD* = 2.17	*M* = 4.08 *SD* = 2.08	*M* = 3.73 *SD* = 2.04	$F(1, 718) = .002$, $p = .966$
Race	American Indian or Alaska Native: 24 Asian: 50 Black or African American: 59 Native Hawaiian or Other Pacific Islander: 5 White: 559 Prefer to self describe: 23	American Indian or Alaska Native: 4 Asian: 16 Black or African American: 12 Native Hawaiian or Other Pacific Islander: 1 White: 140 Prefer to self describe: 5	American Indian or Alaska Native: 6 Asian: 15 Black or African American: 12 Native Hawaiian or Other Pacific Islander: 2 White: 137 Prefer to self describe: 8	American Indian or Alaska Native: 5 Asian: 9 Black or African American: 18 Native Hawaiian or Other Pacific Islander: 1 White: 145 Prefer to self describe: 2	American Indian or Alaska Native: 9 Asian: 10 Black or African American: 17 Native Hawaiian or Other Pacific Islander: 1 White: 137 Prefer to self describe: 8	$X^2(6) = 2.97$, $p = .396$
Ethnicity	Hispanic: 73 Non hispanic: 647	Hispanic: 17 Non hispanic: 161	Hispanic: 21 Non hispanic: 159	Hispanic: 13 Non hispanic: 167	Hispanic: 22 Non hispanic:160	$X^2(15) = 12.5$, $p = .638$
Vaccination Status	Vaccinated: 355 Unvaccinated: 365	Vaccinated: 89 Unvaccinated: 89	Vaccinated: 89 Unvaccinated: 91	Vaccinated: 86 Unvaccinated: 94	Vaccinated: 91 Unvaccinated: 91	$X^2(3) = .24$, $p = .971$

Note: For education: 1 = "Did not graduate from high school", 2 = High school graduate, 3 = Some college, no degree, 4 = 2-year college degree, 5 = 4-year college degree, and 6 = "Postgraduate degree (MA, MBA, MD, JD, PhD, etc.)". For partisanship:1 = "Strong Democrat", 2 = Weak Democrat, 3 = Independent closer to Democratic Party, 4 = No preference, 5 = Independent closer to Republican party, 6 = Weak Republican, and 7 = "Strong Republican".

Supplement C: Intervention Vignettes

Experiments 1 and 2

Pre-test vignette

Dr. Sarah Smith is a lecturer and researcher in integrative oncology. Her undergraduate degree is from Harvard University and she has a Ph.D. from the University of California, Berkeley. She is the author of the New York Times bestseller, Surviving Cancer with Integrative Oncology. The book summarizes her research into cutting-edge cancer treatments and has been published in 19 languages for audiences around the world.

After losing several family members to cancer herself, she is passionate about finding effective cancer treatments. Dr. Smith has conducted research in 12 different countries over the last two decades and has investigated a wide array of cancer concerns. In collaboration with several colleagues, Dr. Smith also developed an educational docuseries where she travels across the USA and interviews the most renowned doctors and scientists about their research.

She is also the founder of the Surviving Cancer with Integrative Oncology website, an online community where survivors, family members, friends, and health professionals share their stories and advance groundbreaking cancer research. The website includes recorded lectures by Dr. Smith and other health professionals and online courses for cancer patients and survivors.

Low expertise condition

Please read subsequent information about Dr. Smith:

Dr. Smith actually is not qualified to give medical advice or advice regarding cancer treatments. She does have an undergraduate degree from Harvard, but it was a B.A. with a major in English literature. It is also true that Dr. Smith has a Ph.D. from Berkeley, but it was in anthropology (the study of cultures). Even though Berkeley has several top-tier medical programs, the school does not have an oncology program.

Her Ph.D. explored alternative healing practices from around the world. In particular, she focused on how indigenous communities use herbs and spices to treat different diseases and ailments. In other words, she did not conduct medical research to investigate what cures cancer from a scientific perspective. As such, she is not trained in how to conduct scientific research. She has never learned skills that are commonly imparted during a scientific Ph.D., such as experimental design, data analysis, and how to publish findings in academic journals.

There are several other signs that she lacks scientific expertise. For example, her online presence starkly contrasts that of a genuine medical professional. Although she has her own websites, most active scientists have a Google Scholar page or ResearchGate profile where you can find their published, peer-reviewed research. However, Dr. Smith does not have any of these profiles.

Furthermore, she is not affiliated with any reputable university or research group, and has never published an article in an academic journal.

Correcting disinformation condition

However, Dr. Smith often makes inaccurate statements. For example:

Dr. Smith has said that "fluoride in water can increase your likelihood of developing cancer." This is false. The National Cancer Institute reports that there is no association between fluoride and cancer. One of the most convincing studies was published in 1991, it reviewed more than 50 populations over the past 40 years. It concluded that optimal fluoridation of drinking water did not pose a cancer risk to humans.

Dr. Smith has said that "stress can cause cancer." This is false. According to Cancer Research UK, there is no evidence that people who are more stressed are more likely to get cancer. Although stress may cause people to engage in other behaviors that increase the risk of cancer (such as smoking, overeating, or drinking heavily) stress by itself does not.

Dr. Smith has said that "artificial sweeteners can increase your risk of developing cancer." This is false. According to the National Institutes of Health, artificial sweeteners do not cause cancer. The concern likely comes from a study in the 1960s that found artificial sweeteners cause bladder cancer in laboratory rats. This sweetener was banned in 1969, even though subsequent studies failed to replicate the finding and no such findings have been seen in humans.

Dr. Smith has said that "the vast majority of cancers are inherited or run in families." This is false. Only between 5-10% of cancer diagnoses are linked to inheriting faulty genes, according to Cancer Research UK. Most cancers develop because of a combination of chance and our environment, not because we have inherited a specific cancer gene fault.

Control

Please read subsequent information about Dr. Smith:

Dr. Sarah Smith grew up with her mother, father, and three siblings in Pennsylvania. She has two younger sisters and an older brother. Although she grew up in Harrisburg, her older brother was born and raised in Nevada before her parents moved to Pennsylvania. The family still visits Nevada as frequently as possible, oftentimes to see relatives during holidays or special occasions.

In her spare time, she enjoys long-distance running, cooking, and is an avid photographer. Running was initially a leisure activity, but over time, she developed a passion for it and decided to run in several competitive events across the country. After qualifying for the Boston Marathon in 2022, she spent the last year and a half training by running between 35 and 60 miles a week.

Dr. Smith is also a food lover with impressive culinary skills. In her mid-twenties, she spent several months in Paris learning how to prepare traditional French cuisine. Nowadays, some of her favorite dishes to make include French Onion Soup, Cassoulet, and Flamiche. During her travels, she

developed a passion for photography. Her favorite camera is the Nikon D850, one of the best professional cameras that Nikon has to offer. She used to earn extra money by photographing weddings and children's portraits, but in recent years, she has not had enough time to continue either of these activities.

Combined

Please read subsequent information about Dr. Smith:

Dr. Smith is actually not qualified to give medical advice or advice regarding cancer treatments. She does have an undergraduate degree from Harvard, but it was a B.A. with a major in English literature. It is also true that Dr. Smith has a Ph.D. from Berkeley, but it was in anthropology (the study of cultures).

Her Ph.D. explored alternative healing practices from around the world. In other words, she did not conduct medical research to investigate what cures cancer from a scientific perspective. As such, she has never learned skills that are commonly imparted during a scientific Ph.D., such as experimental design, data analysis, and how to publish findings in academic journals.

Furthermore, Dr. Smith often makes inaccurate statements. For example:

Dr. Smith has said that "fluoride in water can increase your likelihood of developing cancer." This is false. The National Cancer Institute reports that there is no association between fluoride and cancer. One of the most convincing studies was published in 1991, it reviewed more than 50 populations over the past 40 years. It concluded that optimal fluoridation of drinking water did not pose a cancer risk to humans.

Dr. Smith has said that "stress can cause cancer." This is false. According to Cancer Research UK, there is no evidence that people who are more stressed are more likely to get cancer. Although stress may cause people to engage in other behaviors that increase the risk of cancer (such as smoking, overeating, or drinking heavily) stress by itself does not.

Experiment 3

Pre Test Vignette

George Davis is a lecturer, medical researcher, and best-selling author. His undergraduate degree is from Dartmouth University, and he received a PhD. from Harvard University. He is the author of the New York Times bestseller, Essential Vaccine Studies. The book contains summaries of 400 important scientific papers to help parents, the public, and researchers enhance their understanding of vaccinations. Several chapters of the book focuses on COVID-19 vaccinations, a key component of Dr. Davis' research since 2019. The book encourages patients' proactive involvement in their own health care, promoting informed consent. His books have been translated into 19 languages for audiences around the world.

Dr. Davis has conducted research in 12 different countries over the last two decades and has

investigated a wide array of immunology concerns, including COVID-19. In collaboration with several colleagues, Dr. Davis also developed an educational docuseries where he travels across the USA and interviews the most renowned doctors and scientists about their vaccine research.

He is also the founder of the Human Immunology website, an online community where family members, friends, and health professionals share stories, advice and education on health-promoting practices. The website includes recorded lectures by Dr. Davis and other health professionals and online courses for the general public curious about infectious disease and the immune system.

Correcting Disinformation Condition

However, Dr. Davis often makes inaccurate statements. For example:

Dr. Davis has said that "Blood clots are a common side effect caused by the COVID-19 vaccines" This is false. According to the CDC, blood clots have occurred in approximately 4 cases per one million doses administered. This side effect is most commonly associated with the Johnson and Johnson vaccine, and not the mRNA vaccines produced by Pfizer and Moderna.

Dr. Davis has said that "COVID-19 vaccines might not be safe in the long term". This is false. According to the CDC, if side effects are going to happen, they tend to happen within six weeks of a vaccine dose. Vaccines cannot permanently or significantly alter normal biological functions.

Dr. Davis has said that "COVID-19 tests sometimes cannot differentiate between the flu and COVID-19". This is false. According to the CDC, you cannot tell the difference between flu and COVID-19 by symptoms alone because some of the symptoms are the same. However, COVID-19 tests detect a very specific genetic sequence, a genetic sequence that influenza and common cold viruses do not have.

Dr. Davis has said that "Ivermectin is an effective treatment for COVID-19." This is false. The FDA has not authorized or approved the use of Ivermectin as a treatment for COVID-19. The National Institute of Health recommends against the use of ivermectin for the treatment of COVID-19, except in clinical trials. This is because there has been no clear evidence or data to support the use of Ivermectin and taking it in large doses can be dangerous.

Low-Expertise Condition:

Please read subsequent information about Dr. Davis:

Dr. Davis is actually not qualified to give medical advice or advice regarding vaccines. He does have an undergraduate degree from Dartmouth, but it was a B.A. with a major in English literature. It is also true that Dr. Davis has a Ph.D. from Harvard, but it was in media communications and journalism. Even though Harvard has several top-tier medical programs, he was never enrolled in these, and has never taken any courses in immunology or virology.

His postgraduate studies involved learning how forms of media influence consumer trends. As such, he is not trained in how to conduct scientific research. He has never learned skills that are

commonly imparted during a scientific Ph.D., such as experimental design, data analysis, or the advanced biochemistry or immunology which is required to interpret the studies he is reporting on.

There are several other signs that he lacks scientific expertise. For example, his online presence starkly contrasts that of a genuine medical researcher. Although he has his own website, most active scientists have a Google Scholar page or ResearchGate profile where you can find their published, peer-reviewed research. However, Dr. Davis does not have any of these profiles. Furthermore, he is not affiliated with any university or research group, and has never published a scientific article in a peer-reviewed academic journal.

Conflict of Interest Condition:

Please read subsequent information about Dr. Davis:

It has come to light that Dr. Davis has several conflicts of interest. Dr. Davis has received large sums of money from the lobbying group Medical Freedom Alliance, which fights against vaccine mandates in public schools. Dr. Davis's affiliation with this lobbyist group has been incredibly lucrative. In addition, he owns 85% of the stock of a company called Holistic Immunology which sells alternative methods and protocols for wellness and recovery from "vaccine injuries". Financial forecasts predict that he makes up to $2 million a year from this company alone. Dr. Davis also sells supplements and lifestyle products via his website as an alternative to vaccines.

The American Medical Association recommends that doctors disclose their financial interests but Dr. Davis does not include these in his books or his personal website. However, he does often include a disclaimer regarding the quality of information which states: "This information is for education and entertainment purposes only and should not be taken as medical advice. Always consult a licensed healthcare provider before making any decisions. The author does not guarantee that such information is free from errors, accurate, or up to date. Readers are urged to verify the data and references in this book and are encouraged to use discernment and remain cautious when interpreting these complex topics.

Supplement D: Disinformation Stimuli Selection

Experiment 1 and 2

In order to select our disinformation stimuli, a pilot study was conducted. One hundred and fifteen participants from Prolific Academic rated 29 misinformation items on believability, familiarity, and how much they had considered the item previously, all on scales ranging from 0 (definitely not true) to 10 (definitely true). Participants also rated 27 facts, but these were not used in the current study. Participants were between 18 and 72 years of age (M = 32.2 , SD = 12.19), and there were 16 males, 93 females, 5 nonbinary individuals, and one participant who chose not to disclose their gender. To calculate the test-retest reliability of our items, 93 participants returned to re-rate their belief one week later. We selected the most believed and reliable misinformation items for our 4 disinformation items and the 4 items used in the correcting disinformation condition, with believability ranging from M = 3.91 to M = 7.26, and test-retest reliability ranging from $\rho = .43$ to $\rho = .78$. We chose these items pseudo-randomly, such that the belief test items and correcting disinformation items had the same means ($M = 5.44$ for belief test and correcting disinformation conditions).The combined test-retest reliability of the disinformation items were $\rho = .76$, and the correcting disinformation belief items were $\rho = .62$. At the end of the pilot, all participants were debriefed with information as to whether the statements were true or false, with supporting evidence provided.

Table S5: Cancer disinformation belief items

Item	Belief	Reliability
Eating sugar causes cancer to grow and spread more quickly	4.55	0.77
Ingredients in red wine have been shown to prevent both colon and prostate cancer	5.16	0.58
Aluminum, which is commonly found in antiperspirants, has been linked to breast cancer	5.77	0.68
Microwaving plastic can release cancer-causing toxins into food	6.27	0.43

Table S6: Discrediting disinformation condition (cancer)

Item	Belief	Reliability
Fluoride in water can increase your likelihood of developing cancer	3.91	0.62
Stress causes cancer	4.78	0.68
Artificial sweeteners can increase your risk of developing cancer	5.83	0.58
Cancer has a strong genetic component (i.e., cancer is "inheritable" or runs in families)	7.26	0.50

Experiment 3

In order to select our disinformation stimuli, a pilot study was conducted. One hundred and sixteen participants from Prolific Academic rated 25 misinformation items on believability, familiarity, and how much they had considered the item previously, all on scales ranging from 0 (definitely not true) to 10 (definitely true). Participants also rated 25 facts, but these were not used in the current study. Participants were between 18 and 81 years of age (M = 34.5, SD = 14.2), and there were 26 males, 87 females, 1 participant who preferred to self-describe their gender, and 2 participants who chose not to disclose their gender. To calculate the test-retest reliability of our items, 95 participants returned to re-rate their belief one week later. We selected the most believed and reliable misinformation items for our 4 disinformation items and the 4 items used in the correcting disinformation condition, with believability ranging from M = 2.84 to M = 3.69, and test-retest reliability ranging from ρ = .53 to ρ = .90. We chose these items pseudo-randomly, such that the belief test items and correcting disinformation items had the same means (M = 3.31 for belief test items and M = 3.10 for correcting disinformation items). The combined test-retest reliability of the disinformation items were ρ = .89, and the correcting disinformation belief items were ρ = .91. At the end of the pilot, all participants were debriefed with information as to whether the statements were true or false, with supporting evidence provided.

Table S7: COVID-19 disinformation belief items

Item	Belief	Reliability
COVID-19 vaccines might not be safe because they were developed too quickly.	2.94	0.90
COVID-19 vaccines are ineffective against the Omicron variant	2.98	0.74
Myocarditis (inflammation of the heart) is a common side effect caused by the COVID-19 vaccines.	3.63	0.69
You might test positive for COVID-19 as a result of receiving the vaccine.	3.69	0.53

Table S8: Discrediting disinformation condition items (COVID-19)

Item	Belief	Reliability
Ivermectin is an effective treatment for COVID-19	2.84	0.84
COVID-19 tests sometimes cannot differentiate between the flu and COVID-19	2.87	0.72
COVID-19 vaccines might not be safe in the long term	3.28	0.86
Blood clots are a common side effect caused by the COVID-19 vaccines	3.36	0.72

Supplement E: Disaggregated Credibility Analyses

Experiment 1

It is important to note that the results of the following analyses have limitations because the pre-test scores differ between conditions and should be regarded as exploratory. We examined the effects of our interventions on two distinct aspects of credibility: trustworthiness and expertise (Ohanian, 1990), focusing on the pre-post subtraction scores. A 2 × 3 repeated measures ANOVA on the credibility subscale (trust vs. expertise) and between-subjects factors intervention (control vs. correction vs. low expertise) revealed a main effect of intervention, ($F(2, 298) = 132.97$, $p < .001$, $MSE = 3.65$, $\eta p^2 = .47$) and a credibility subscale by intervention interaction ($F(2, 298) = 14.59$, $p < .001$, $MSE = .25$, $\eta p^2 = .09$). As can be seen by Figure S1, trust and expertise were reduced in comparison to control for both correcting disinformation ($t(298) = 10.11$, $p < .001$; $t(298) = 14.39$, $p < .001$, respectively) and low expertise ($t(298) = 9.60$, $p < .001$; $t(298) = 16.88$, $p < .001$, respectively). Importantly, highlighting low expertise lowered trust and expertise more than correcting disinformation ($t(298) = 4.33$, $p < .001$, $t(298) = 7.33$, $p < .001$, respectively).

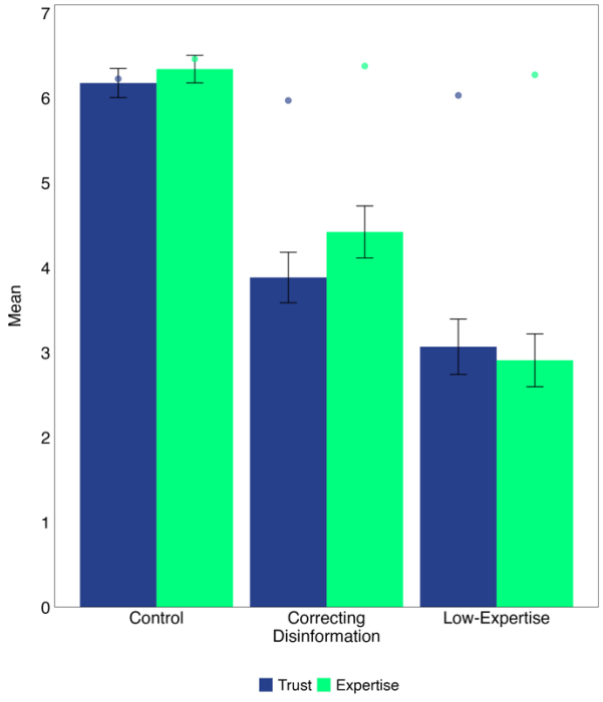


Figure S1: Experiment 1 disaggregated credibility

Experiment 2

It is important to note that the results of the following analyses have limitations because the pre-test scores differ between conditions and should be regarded as exploratory. Examining the pre-post subtraction credibility scores, we conducted 2 × 4 repeated measures ANOVA with within subjects factors credibility subscale (trust vs. expertise), and between-subjects factors intervention (control vs. correcting disinformation vs. low expertise vs. combined). We found a main effect of intervention, ($F(3, 597) = 142.58$, $p < .001$, $MSE = 4.66$, $\eta p^2 = .42$). Both trust and expertise were reduced in comparison to control for correcting disinformation ($t(597) = 11.99$, $p < .001$; $t(597) = 11.05$, $p < .001$, respectively), low expertise ($t(597) = 14.25$, $p < .001$; $t(597) = 16.78$, $p < .001$, respectively), and the combined condition ($t(597) = 17.44$, $p < .001$; $t(597) = 19.98$, $p < .001$, respectively). Similar to Experiment 1, there was a credibility subscale by intervention interaction ($F(3, 597) = 21.42$, $p < .001$, $MSE = .32$, $\eta p^2 = .10$), showing that trust and expertise were not reduced equally across interventions. Highlighting low expertise reduced expertise more than correcting disinformation ($t(597) = 5.76$, $p < .011$), but reduced trust to the same extent as correcting disinformation ($p = .305$). The combined condition reduced trust and expertise more than highlighting low expertise did ($t(597) = 3.21$, $p = .030$, $t(597) = 3.22$, $p = .029$).

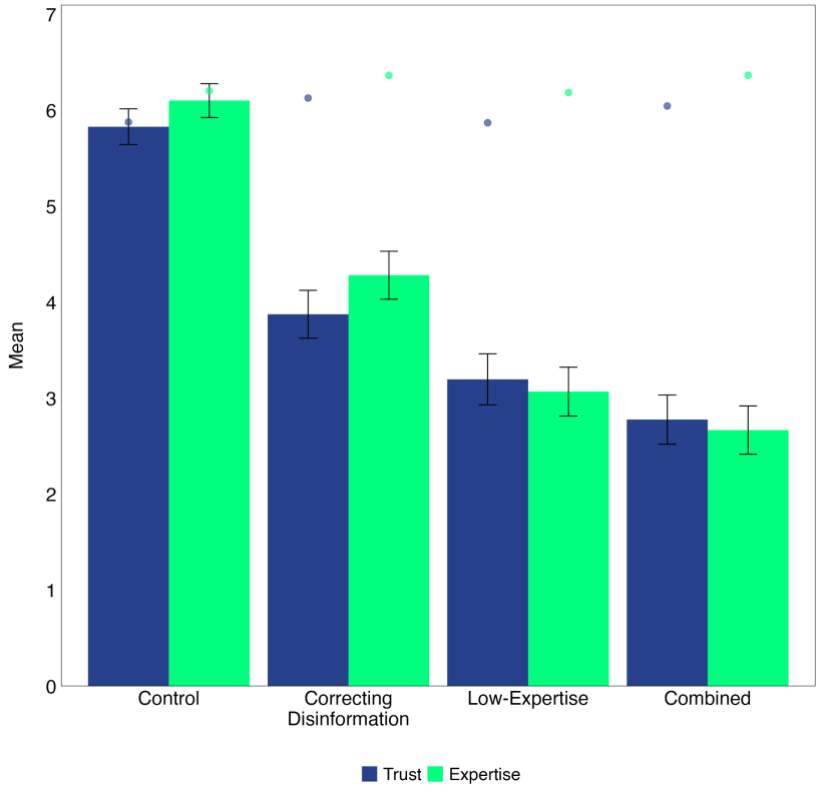


Figure S2: Experiment 2 disaggregated credibility

Experiment 3

It is important to note that the results of the following analyses have limitations because the pre-test scores differ between conditions and should be regarded as exploratory. To simplify our analyses, we first focus on the pre-test and immediate post-test. Examining the pre-post immediate subtraction scores, we conducted a 2 × 2 × 4 repeated measures ANOVA with within subject factors (trust vs expertise) and vaccination status (vaccinated vs unvaccinated) and intervention (control vs. correcting disinformation vs. low expertise vs. combined). We found a credibility subscale by vaccination status interaction ($F(1,712) = 20.80$, $p < .001$, $MSE = .51$, $\eta p^2 = .03$), showing that the reduction of expertise and trust depended on vaccination status. We also found a credibility subscale by intervention interaction $F(1,712) = 56.78$, $p < .001$, $MSE = .51$, $\eta p^2 = .19$), showing that trustworthiness and expertise reduced differently across the interventions. It is interesting to note that when focusing on the immediate post-test, low expertise was the only condition where trust and expertise reduced to the same level for both vaccinated and unvaccinated participants ($p = .994$), as can be seen by Figure S3.

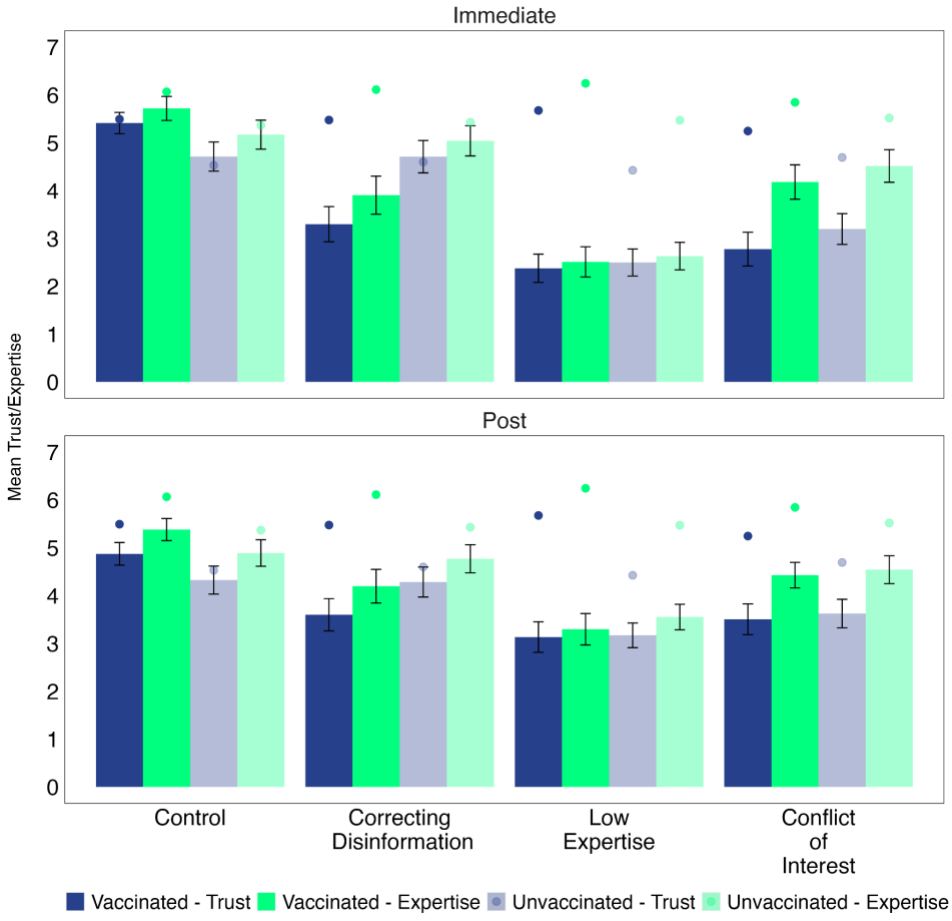


Figure S3: Experiment 3 disaggregated credibility

Focusing on the vaccinated participants, all conditions reduced trust and expertise in comparison to control (see Table S9). Correcting disinformation and highlighting conflicts of interest reduced trust and expertise an equivalent amount ($p = .998$; $p = .532$). However, low expertise reduced both trust and expertise more than conflicts of interest ($p = .047$ $p < .001$) and correcting disinformation ($p < .001$; $p < .001$, respectively). Focusing on the unvaccinated participants, correcting disinformation was equivalent to control for both trust and expertise, but all other conditions reduced in comparison to control. Highlighting low expertise reduced expertise more than conflicts of interest, ($p < .001$) but trust the equivalent amount ($p = .904$).

Table S9: Interventions at the immediate time point compared with control for trust and expertise df (712), *t*, and *p* value.

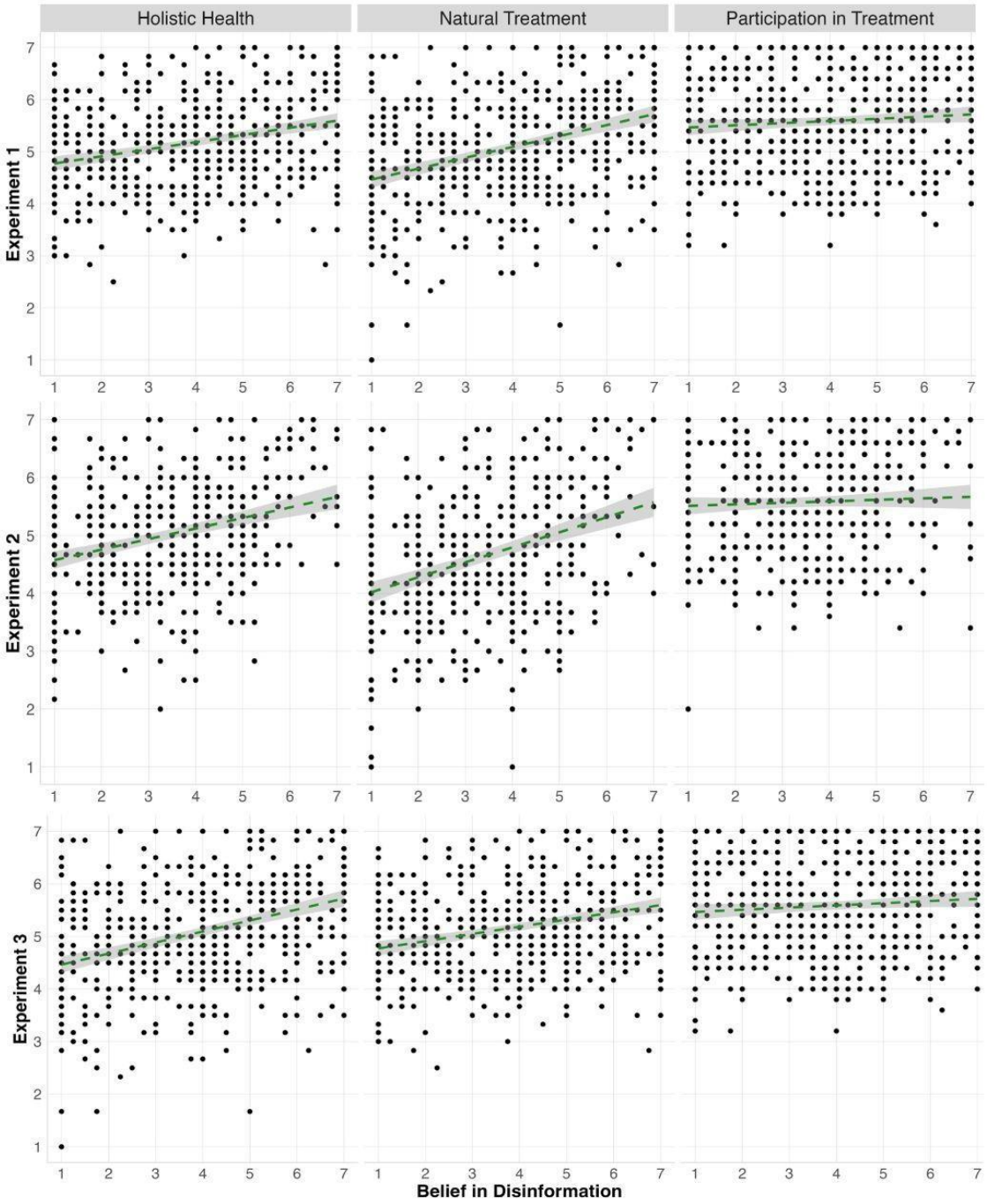
	Vaccinated		Unvaccinated	
	Trust	Expertise	Trust	Expertise
Correcting disinformation	8.74 < .001	8.28 < .001	.30 1.00	.86 1.00
Low expertise	13.31 < .001	14.94 < .001	8.92 <.001	11.93 <.001
Conflict of interest	10.01 < .001	5.90 < .001	7.04 <.001	3.60 .043

We next examined the pre-post one week delayed subtraction scores, conducting a 2 × 2 × 4 repeated measures ANOVA on the credibility subscale, vaccination status, and intervention. We found a credibility subscale by vaccination status interaction ($F(1,712) = 12.08$, $p < .001$, $MSE = .47$, $\eta p^2 = .02$), and a credibility subscale by intervention interaction $F(1,712) = 17.74$, $p < .001$, $MSE = .47$, $\eta p^2 = .07$). Focusing on the vaccinated participants, all conditions reduced trust and expertise in comparison to control (see Table S10), except for conflict of interest for expertise. Highlighting low expertise reduced expertise more than correcting disinformation ($p < .001$). Additionally, highlighting low expertise was equivalent to correcting disinformation ($p = .344$), and the conflict of interest condition ($p = .089$). Focusing on the unvaccinated participants, correcting disinformation was equivalent to control for trust and expertise, and conflicts of interest was equivalent to control for expertise. Highlighting low expertise reduced expertise more than conflicts of interest, ($p < .001$) but trust the equivalent amount ($p = 1.00$).

Table S10: Interventions at the delayed time point compared with control for trust and expertise df (712), *t,* and *p* value.

	Vaccinated		Unvaccinated	
	Trust	Expertise	Trust	Expertise
Correcting disinformation	5.11 < .001	5.62 < .001	.45 1.00	.84 1.00
Low expertise	7.75 < .001	10.26 < .001	4.33 < .001	6.69 < .001
Conflict of interest	4.58 < .001	3.37 .062	3.53 .037	2.30 .625

Supplement F: Figure S4: CAMBI Subscales and Belief in Disinformation



Supplement G: Residual and Subtraction Score Correlation Tables

Table S11: Experiment 1 credibility and feelings residuals and subtraction scores correlated with CAMBI, CAMBI-NH, and closeness to cancer.

	CAMBI	**CAMBI-NH**	**Closeness to Cancer**
Credibility Residuals	$r = .25$ $p < .001$ $\rho = .20$ $p = .008$	$r = .31$ $p < .001$ $\rho = .26$ $p < .001$	$r = .11$ $p = .372$ $\rho = .10$ $p = .327$
Credibility Subtraction Scores	$r = .20$ $p = .005$ $\rho = .15$ $p = .041$	$r = .27$ $p < .001$ $\rho = .21$ $p = .003$	$r = .10$ $p = .372$ $\rho = .09$ $p = .327$
Feelings Residuals	$r = .32$ $p < .001$ $\rho = .29$ $p < .001$	$r = .36$ $p < .001$ $\rho = .33$ $p < .001$	$r = .15$ $p = .116$ $\rho = .17$ $p = .068$
Feelings Subtraction Scores	$r = .25$ $p < .001$ $\rho = .23$ $p < .001$	$r = .30$ $p < .001$ $\rho = .27$ $p < .001$	$r = .11$ $p = .372$ $\rho = .11$ $p = .327$

Note: Bonferroni-Holm corrected *p*-values reported.

Table S12: Experiment 2 credibility and feelings residuals and subtraction scores correlated with CAMBI, CAMBI-NH, closeness to cancer, and eHeals.

	CAMBI	**CAMBI-NH**	**Closeness to Cancer**	**eHeals**
Credibility Residuals	r =.28 p < .001 ρ = .24 p < .001	r = .34 p < .001 ρ = .32 p < .001	r = .06 p = .872 ρ = .05 p = .765	r = .09 p = .192 ρ = .08 p = .316
Credibility Subtraction Scores	r = .20 p < .001 ρ = .16 p < .001	r = .27 p < .001 ρ = .25 p < .001	r = .06 p = .872 ρ = .06 p = .692	r = -.02 p = .884 ρ = -.02 p = 1.00
Feelings Residuals	r = .29 p < .001 ρ = .26 p < .001	r = .35 p < .001 ρ = .33 p < .001	r = .05 p = .872 ρ = .05 p = .765	r = .07 p = .426 ρ = .07 p = .471
Feelings Subtraction Scores	r = .18 p < .001 ρ = .17 p < .001	r = .24 p < .001 ρ = .24 p < .001	r = .03 p = .872 ρ = .04 p = .765	r = - .04 p = .884 ρ = -.02 p = 1.00

Note: Bonferroni-Holm corrected *p*-values reported.

Table S13: Experiment 3 credibility and belief in disinformation residuals correlated with CAMBI, CAMBI-NH, and vaccine hesitancy.

	CAMBI	**CAMBI-NH**	**Vaccine Hesitancy**
Belief in disinformation residuals immediate post-test	r = .08 p = .130 ρ = .17 p < .001	r = .09 p = .078 ρ = .18 p < .001	r = .12 p = .005 ρ = .32 p < .001
Belief in disinformation residuals delayed posttest	r = .05 p = .230 ρ = .07 p = .103	r = .09 p = .078 ρ = .12 p = .005	r = .14 p < .001 ρ = .25 p < .001
Credibility residuals immediate posttest	r = .17 p < .001 ρ = .15 p < .001	r = .19 p < .001 ρ = .17 p < .001	r = .29 p < .001 ρ = .29 p < .001
Credibility Residual Scores delayed posttest	r = .15 p < .001 ρ = .15 p < .001	r = .21 p < .001 ρ = .20 p < .001	r = .23 p < .001 ρ = .22 p < .001

Note: Bonferroni-Holm corrected *p*-values reported.

Supplement H: Omnibus analyses for Experiment 3

Belief in disinformation

In order to determine the effect of each intervention on participants belief in disinformation, we ran a 2 × 3 × 4 repeated measures ANOVA on disinformation belief, with within-subjects factor pre-post (pre-test vs. immediate post test vs. one week post test), and between-subjects factors intervention (control, correction, low expertise, and conflict of interest) and vaccine status (vaccinated vs unvaccinated). We found main effects of pre-post ($F(2, 1424) = 10.58$, $p < .001$, $MSE = .67$, $\eta p^2 = 0.02$), intervention ($F(3,712) = 6.72$, $p < .001$, $MSE = 5.10$, $\eta p^2 = 0.03$), and vaccine status ($F(1,712) = 475.03$, $p < .001$, $MSE = 5.10$, $\eta p^2 = 0.40$), showing that vaccinated participants had lower disinformation belief than unvaccinated participants. Vaccination status did not interact with pre-post ($p = .262$) nor intervention ($p = .101$), showing that unvaccinated participants responded similarly to the interventions as vaccinated participants. There was a pre-post × intervention interaction, showing that the degree that belief changed over time depended upon the intervention ($F(6, 1,424) = 15.27$, $p < .001$, $MSE = .67$, $\eta p^2 = 0.06$).

We predicted that the conflict of interest intervention would reduce belief in new disinformation more than the other interventions, and that there would be no difference between the low expertise and correcting disinformation conditions. We found that the conflict of interest intervention did not reduce belief in new disinformation more than the other interventions. However, there was indeed no difference between the low expertise and correcting disinformation conditions. Focusing on the interventions and collapsing over vaccine status, we conducted a 3 × 3 repeated measures ANOVA with with within-subjects factor pre-post (pre-test vs. immediate post test vs. one week post test) and between-subjects factors intervention (correction, low expertise, and conflict of interest). We found an interaction of prepost and intervention ($F(4, 1078) = 8.77$, $p < .001$, $MSE = .71$, $\eta p^2 = 0.05$). We found that the conflict of interest condition at the immediate post-test was equivalent to correcting disinformation ($p = .993$) and *higher* than low expertise ($p = .020$). At the delayed post-test, no intervention differed ($p = .359$). We found that there was no difference between correcting disinformation and low expertise in both the immediate post-test ($p = .235$) and delayed post-test ($p = .999$). Given that we hypothesized no difference between the low expertise and correcting disinformation conditions, we replicated this comparison with Bayesian analyses. This is because this method can quantify relative evidence favoring the null hypothesis. This provided moderate evidence of no difference between the correcting disinformation and low expertise conditions ($BF_{01} = 5.34$).

Source Credibility

We next ran a 2 × 3 × 4 repeated measures ANOVA on credibility scores, with between subjects factor vaccination status within-subjects factor pre-post and between-subjects factors intervention. We found a main effect of pre-post ($F(2, 1424) = 525.36$, $p < .001$, $MSE = .96$, $\eta p^2 = 0.43$), and intervention ($F(3,712) = 59.45$, $p < .001$, $MSE = .96$, $\eta p^2 = 0.20$). This was qualified by an intervention × pre-post interaction ($F(6, 1424) = 66.67$, $p < .001$, $MSE = .96$, $\eta p^2 = 0.22$), showing that the intervention efficacy changed over time. There was also an intervention × vaccination status interaction ($F(3, 712) = 8.54$, $p < .001$, $MSE = 3.16$, $\eta p^2 = 0.04$), showing that the efficacy of the interventions differed depending upon vaccination status, a pre-post × vaccination status interaction ($F(2, 1424) = 64.40$, $p < .001$, $MSE = .96$, $\eta p^2 = 0.08$), and a three way intervention × pre-post × vaccination status interaction ($F(6, 1424) = 8.15$, $p < .001$, $MSE = .96$, $\eta p^2 = 0.03$), showing that the interventions were sustained differently depending on the individual's vaccination status.