

Methoden-Dokument:

Umgang mit Falschinformationen in den Medien

Fact Sheet abrufbar unter:

https://www.public-health-covid19.de/images/2020/Ergebnisse/2020_05_11_Factsheet_Fake_News-V1.pdf



Kompetenznetz Public Health COVID-19

Umgang mit Falschnachrichten in Medien

Eine Übersicht über aktuelle wissenschaftliche Erkenntnisse und Handlungsempfehlungen zum Umgang mit Falschnachrichten bei COVID-19

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Version 1.0 vom 12.05.2020

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1 Konzept und PICO-Frage

Ziel der Recherche war, möglichst alle Studien zu Falschnachrichten und COVID-19 zu finden, sowohl Untersuchungen zur Häufigkeit, wie auch zur Wirksamkeit von Richtigstellungen. Gewählt wurde daher eine breite, sensitive Suchstrategie, die ausschließlich Suchterme und Synonyme für COVID 19 und für Falschnachrichten verknüpft, ohne die Suche über weitere Komponenten oder Filter bezgl. Studientyp einzugrenzen. Eine Beschränkung des Suchzeitraums erschien aufgrund der zeitlichen Entwicklung nicht notwendig.

2-Komponenten-Suche:

P: Covid-19

I: Misinformation

2 Recherche

2.1 Medline via Pubmed (www.pubmed.gov) (24.April 2020)

Nr.	Suchfrage	Anzahl
#7	#3 AND #6	118
#6	#4 OR #5	308479
#5	misinform*[tiab] OR fake[tiab] OR false[tiab]	307978
#4	"Communication"[Mesh]	308213
#3	#1 OR #2	17347
#2	covid[tiab] OR corona[tiab] OR sars-cov[tiab] OR „sars cov“[tiab]	17312
#1	"COVID-19"[Supplementary Concept]	16957

Anzahl der Treffer: 1 Aggregierte Evidenz; 0 RCTs, 117 Sonstige

2.2 Handsuche Referenzlisten

Zusätzliche Einschlüsse: N = 5

2.3 Suche Deutscher Versorgungskontext

Suche bei folgenden Organisationen:

- Robert-Koch-Institut www.rki.de
- Bundesregierung <https://www.bundesregierung.de/breg-de/themen/coronavirus>
- Bundesministerium für Gesundheit <https://www.bundesgesundheitsministerium.de/>
- Bundesamt für Risikobewertung <https://www.bfr.bund.de/cm/>
- Nationaler Aktionsplan Gesundheitskompetenz <https://www.nap-gesundheitskompetenz.de/aktuelles/>
- Science Media Center <https://www.sciencemediacenter.de/alle-angebote/coronavirus/>

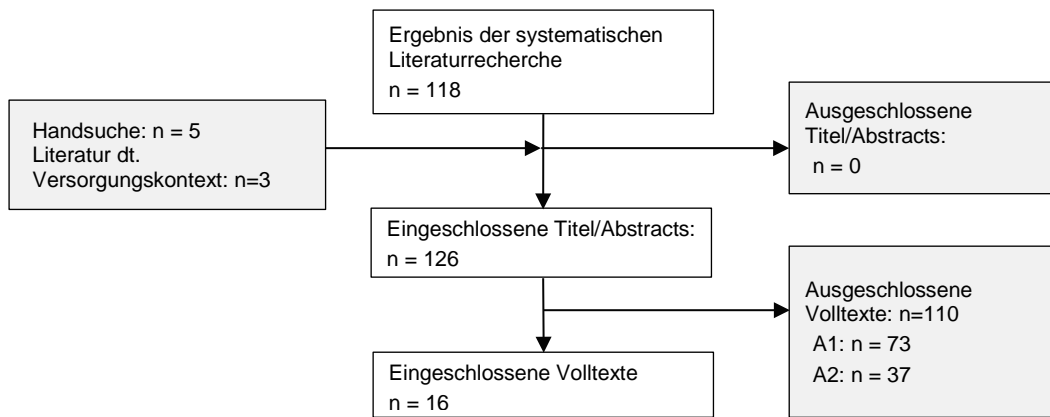
Einschlüsse: N=3

2.4 Internetsuche Faktenchecks

Google Suche, Stichwort „Faktencheck Corona“ Datum: 28.4.2020; Treffer: 2.360.000

Überprüfung der ersten 200 Treffer

3 Flowchart



Ausschlussgründe

A1: Anderes Thema

A2: Anderer Publikationstyp (z.B. unsystematischer Review, Kommentar, Opinion Piece, letter to the editor)

4 Ergebnisse

4.1 Allgemeine methodenkritische Aspekte

Die identifizierte Evidenz zu Vorkommen und Art von Falschnachrichten in sozialen Medien basiert auf Querschnittserhebungen unterschiedlich großer Samples und birgt vor allem das Risiko des Selektionsbias. Gleichwohl sind die Aussagen über die meisten Untersuchungen hinweg konsistent, was trotz eingeschränkter methodischer Güte die Aussagekraft etwas stärkt. Für die Aussage, dass Falschnachrichten in einem relevanten, handlungsbegründenden Ausmaß in sozialen Netzwerken vorkommen, scheinen die Daten hinreichend.

Die Daten zum Informationsverhalten in Deutschland stammen aus eher belastbaren, repräsentativen Surveys und scheinen in den Aussagen vergleichbar.

Die Evidenz zur Wirksamkeit von Maßnahmen zur Richtigstellung von Falschnachrichten ist schwach bis sehr schwach. Obwohl teils randomisierte Designs vorliegen, schränken Limitationen die Aussagekraft erheblich ein. Dies ist einerseits den unpräzisen Effekten geschuldet, vor allem aber dem Umstand, dass wichtige Verzerrungsrisiken aufgrund fehlender Berichtsqualität nicht beurteilt werden konnten: Dies betrifft die fehlenden Angaben zur Verblindung (die zwar nicht bei den Teilnehmenden, wohl aber bei den Auswertenden möglich gewesen wäre, was Bias reduziert hätte) und fehlenden Angaben bezüglich Randomisierung und allocation concealment. Hinzukommt die Heterogenität bezüglich der getesteten Interventionen, der erhobenen Outcomes sowie deren Messung und der Kontexte, in denen die Experimente durchgeführt wurden, so dass ein Vergleich der Daten problematisch erscheint. Vor allem wurden die komplexen Interventionen, in der Regel die Art und Weise, wie Falschnachrichten korrigiert wurden, nicht präzise genug beschrieben, so dass eine Replikation der Studien durch dritte und eine genaue Beurteilung der Interventionen nicht möglich ist. In der gefundenen Metaanalyse von Walter et al. wurde keine Qualitätsbewertung der zugrundeliegenden Studien vorgenommen. All dies beeinträchtigt die Etablierung einer Kausalität. Gleichwohl weisen die meisten Effekte bezüglich der prinzipiellen Richtigstellung von Falschnachrichten in dieselbe Richtung, so dass es auf der Grundlage der Daten und der Abwägung des potenziellen Nutzens gegen mögliche Schäden insbesondere auch gegen die Option, gar nicht zu intervenieren, gerechtfertigt scheint, einen aktiven Umgang mit Falschnachrichten zu empfehlen.

4.2 Informationsverhalten und Vertrauen in Medien und Akteure

Betsch et al. Gesundheitskompetenz der Bevölkerung im Umgang mit der Coronavirus-Pandemie	
Link	https://projekte.uni-erfurt.de/cosmo2020/cosmo-analysis.html
Design	Wöchentliche, repräsentative Umfrage
Objective(s)	
methods	Wöchentliche Datenerhebungen seit 3. März 2020. N=1007 Befragte (18 – 74 J; Rekrutierung aus Online-Panel mit Repräsentativität bzgl. von Alter, Geschlecht und Bundesland; erfasst werden affektive Aspekte (Angst, Sorge, Dominanz des Themas, Hilflosigkeit), Wahrnehmung des Virus (wahrgenommene Nähe, Ausbreitungsgeschwindigkeit, Neuheit), gefühltes und echtes Wissen (COVID-19, Schutzmaßnahmen), Selbstwirksamkeit und wahrgenommene Sicherheit in Bezug auf effektive Schutzmaßnahmen, Wahrnehmung des Ausbruchs als Medienhype, Häufigkeit der Informationssuche über Corona,
Results	<p>Auswahl: Wissensstand und Informationsverhalten</p> <ul style="list-style-type: none"> - Selbsteingeschätzter Wissensstand (Skala 1/gar kein Wissen – 7/sehr viel Wissen): Mittelwert +/-4,9 (4,58 am 3.3. – 5,04 am 14.04), seit 31.3. kontinuierlich um 4,9 und höher - Tatsächliches Wissen (ermittelt über 3 Wissensfragen) 86% – 90%

	<ul style="list-style-type: none"> - Informationshäufigkeit: nie informierten sich 23% (10.03) – 8% (31.03./14.04.) der Befragten zu COVID-19, - Vertrauen in ausgewählte Organisationen bezgl. Umgang mit COVID-19 (Skala 1/sehr wenig Vertrauen – 7/sehr viel Vertrauen): <ul style="list-style-type: none"> o RKI: 5,6 (31.3.) – 4,9 (5.5.), Tendenz sinkend o Ärzt*innen 5,5 (5.5.) – 5 (10.3.) Tendenz steigend o Wissenschaft 5,3 (21.4.) – 5,1 (5.5) geringfügig schwankend o Bundesregierung 4,4 – 4,5 gleichbleibend - Akzeptanz der Maßnahmen zur Einschränkung der Pandemie geht kontinuierlich über den Erhebungszeitraum zurück
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Kleis Nielsen et al. Misinformation, Science and the Media. Navigating the Infodemic: How people in six countries access and rate information about coronavirus (April 2020)	
Link	https://reutersinstitute.politics.ox.ac.uk/infodemic-how-people-six-countries-access-and-rate-news-and-information-about-coronavirus
Design	Survey
Objective(s)	To understand how people access and rate news and information about covid-19 from different sources
methods	Nationally representative surveys in 6 countries (UK n=2.216, US n=1.273, Germany n=2.003, Spain n=1.018, South Korea n=1.009, Argentina n=1003); 31 March to 7 Apr 2020
Results	<p>UK / US / D / ES / SK / AR in the last week (%)</p> <p>Source for news</p> <p>Online (incl soc. Media) 79 / 72 / 69 / 83 / 85 / 90</p> <p>TV 70 / 58 / 72 / 71 / 65 / 77</p> <p>Platforms to access news (%)</p> <p>Google 35 / 38 / 39 / 55 / 27 / 65</p> <p>Facebook 33 / 36 / 25 / 42 / 20 / 53</p> <p>Twitter 19 / 18 / 6 / 30 / - / 21</p> <p>YouTube 15 / 26 / 21 / 25 / 46 / 46</p> <p>Instagram 9 / 12 / 10 / 21 / - / 31</p> <p>Online group discussion</p> <p>Facebook 18 / 21 / 12 / 23 / 27 / 29</p> <p>WhatsApp 27 / 9 / 27 / 52 / - / 54</p> <p>Trust (Results for Germany only)</p> <p>Scientists 74%</p> <p>National health organisations (RKI) 68%</p> <p>News organisations 58%</p> <p>Politicians 39%</p> <p>helped me understand the pandemic (Results for Germany only)</p> <p>Media 60%</p> <p>Government 50%</p>

Okan et al. (Apr. 2020) Gesundheitskompetenz der Bevölkerung im Umgang mit der Coronavirus-Pandemie	
Link	https://dngk.de/wp-content/uploads/2020/04/Okan-et-al.-Gesundheitskompetenz-und-Corona-Bericht.pdf
Design	Einmalige Repräsentative Online-Umfrage
Objective(s)	Gesundheitskompetenz der dt. Bevölkerung im Kontext von COVID-19 ermitteln
methods	Online-Befragung eines online-repräsentativen Querschnitt der deutschen Bevölkerung von 1.000 Personen ab 16 Jahren zwischen dem 31. März und dem 7. April 2020. Fragebogen basierend auf dem deutschen HLS-EU-Q16 mit Anpassung an den Schwerpunkt auf das Coronavirus und COVID-19.
Results	<ul style="list-style-type: none"> - 90% fühlen sich subjektiv gut (61%) oder sehr gut (29%) informiert zu Corona (keine sig. Unterschiede bezgl. Geschlecht und Alter, aber Tendenz zu besserer Information bei Haushalten mit höherem Einkommen) - 56% sind sehr (11%) oder etwas verunsichert (45%) angesichts der vielen Informationen. - 51% finden es sehr einfach (13%) oder einfach (39%) einzuschätzen, ob Informationen zu Corona in den Medien vertrauenswürdig sind

4.3 Häufigkeit und Inhalte von Fake News auf Social Media

Allington et al. (Apr. 2020) The relationship between conspiracy beliefs and compliance with public health guidance with regard to COVID-19	
Link	https://kclpure.kcl.ac.uk/portal/en/publications/the-relationship-between-conspiracy-beliefs-and-compliance-with-public-health-guidance-with-regard-to-covid19(734ca397-6a4d-4208-bc1a-f3da12f04628).html
Design	Survey
Objective(s)	To evaluate whether non-compliance of public health guidance with regard to COVID-19 was significantly associated with adherence to conspiracist beliefs
methods	<p>survey of adults resident in the UK. 949 individuals gave consent to take part in the research and completed the questionnaire, from 3-7 April 2020;</p> <p>The three conspiracy beliefs that were asked about:</p> <ol style="list-style-type: none"> 1.The virus that causes COVID-19 was probably created in a laboratory 2.The symptoms of COVID-19 seem to be connected to 5G mobile network radiation 3.The COVID-19 pandemic was planned by certain pharmaceutical corporations and government agencies; <p>The three aspects of public health guidance that were asked about :</p> <ol style="list-style-type: none"> A.Spending as little time as possible outside of your home B.Staying at least 2 metres apart from anyone outside of your household C.Washing your hands more often, for 20 seconds
Results	<ul style="list-style-type: none"> - Each of the three conspiracy beliefs was associated with a lower rate of compliance with each of the three aspects of public health guidance. - The relationship appeared strongest with regard to Belief 2 ('The symptoms of COVID-19 seem to be connected to 5G mobile network radiation'; estimated OR for staying at home 0.49, p 0.02; keeping distance 0.43, p 0,008, washing hands 0,42, p 0,006). - Each of the other two beliefs had a statistically significant negative relationship with compliance with at least one of the aspects of public health guidance.

Basch et al. Preventive Behaviour conveyed on YouTube to mitigate transmission of COVID-19: Cross sectional Study (April 2020)	
Link	https://www.ncbi.nlm.nih.gov/pubmed/32240096
Design	Cross sectional content analysis
Objective(s)	To investigate the content of YouTube videos related to COVID-19
methods	Identification of the 100 most widely viewed YouTube videos uploaded throughout the month of January 2020 (keyword „Coronavirus“, sorted by viewcount), the content covered was described with coding categories (preventive behaviours, mortality and fear, symptoms, transmission and natural history, other precautions) with codings provided by one reviewer and cross checked by a second in a subset of 10 Videos (interrater-reliability , Cohen kappa k=0,971).
Results	<ul style="list-style-type: none"> - Sample of Videos analysed viewed >125 Mio times - Fewer than 1/3 of videos covered any of the key prevention behaviours recommended - 84/100 Videos mentioned death due to COVID-19 - 79/100 Videos suggested anxiety or fear.

Bastani et al. (Mar. 2020) COVID-19 Related Misinformation on Social Media: A Qualitative Study from Iran (preprint)	
Link	https://preprints.jmir.org/preprint/18932/accepted
Design	content analysis
Objective(s)	to analyze contents of the most commonly used social networks in Iran that is among the affected countries
methods	social media monitoring conducted through a qualitative design to analyze the discussions of social media users about the content related to COVID-19 transferred via Iranian medical faculty members` groups in Telegram and Whats App during Feb 20 to March 20, 2020. Qualitative discourse analysis of written dialogues
Results	<ul style="list-style-type: none"> - Cultural factors, demand pressure for information during the crisis, the easiness of information dissemination via socialnetworks, marketing incentives and the poor legal supervision of online contents are being discussed as the main reasons of misinformation dissemination. - Disease statistics; treatments, vaccines and medicines; prevention and protection methods; dietary recommendations and disease transmission ways are the main subjective categories of releasing misinformation regarding novel coronavirus outbreak. - Consequences of misinformation dissemination include psychosocial; economic; healthstatus; health system and ethical ones. - Active and effective presence of health professionals and authorities on social media during the crisis and the improvement of public health literacy in the long term are the most recommended strategies for dealing with issues related to misinformation.

Boberg et al. Facebook Pages of alternative news media and the corona crisis – a computational content analysis (April 2020)	
Link	https://arxiv.org/pdf/2004.02566.pdf
Design	Cross sectional content analysis
Objective(s)	To investigate the content of German Facebook posts by alternative media related to COVID-19
methods	Computational content analysis of German Facebook posts that were publicly accessible from alternative media, “mainstream media” and fact checker between Jan. 7 and March 22 2020 on Coronavirus (identified by “CrowdTangle”);

Results	<ul style="list-style-type: none"> - N=20.799 posts (alternative media: n=2.446, mainstream n=18.051, fact checkers n=282) - Alternative media are predominantly sharing over-critical and anti-systemic messages, opposing the view of mainstream media; completely made up information was rare. - Among the 10 most frequent topics: epidemiologic key information (i.e. infection and fatality rates; not different from mainstream media) fear and panic; chaotic management of the crisis and failure of the government; questioning measurements taken as not reasonable; worst case scenarios; corona and migration.
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Brennen et al. Times, Sources and claims of COVID-19 Misinformation (April 2020)	
Link	https://reutersinstitute.politics.ox.ac.uk/types-sources-and-claims-covid-19-misinformation
Design	Content analysis (cross sectional)
Objective(s)	To examine content of and type of misinformation about COVID-19
methods	<p>a sample of 225 pieces of misinformation rated false or misleading by fact-checkers and published in English between January and the end of March 2020; The 225 pieces of misinformation analysed were sampled from a corpus of English-language fact-checks gathered by First Draft, focusing on content rated false or misleading. The corpus combines articles to the end of March from fact-checking contributors to two separate networks: the International Fact-Checking Network (IFCN) and Google Fact Checking Tools.</p> <p>We systematically assessed each fact-checked instance and coded it for the type of misinformation, the source for it, the specific claims it contained, and what seemed to be the motivation behind it. Furthermore, we gathered social media engagement data for all pieces of content identified and linked to by fact-checkers in the sample to get an indication of the relative reach of and engagement with different false or misleading claims.</p>
Results	<ul style="list-style-type: none"> - Formats: most (59%) of the misinformation in our sample involves various forms of reconfiguration, where existing and often true information is spun, twisted, recontextualised, or reworked. Less misinformation (38%) was completely fabricated. Despite a great deal of recent concern, we find no examples of deep fakes in our sample. Instead, the manipulated content includes ‘cheap fakes’ produced using much simpler tools. The reconfigured misinformation accounts for 87% of social media interactions in the sample; the fabricated content, for 12%. - Sources: top-down misinformation from politicians, celebrities, and other prominent public figures made up just 20% of the claims in our sample but accounted for 69% of total social media engagement. While the majority of misinformation on social media came from ordinary people, most of these posts seemed to generate far less engagement. However, a few instances of bottom-up misinformation garnered a large reach and our analysis is unable to capture spread in private groups and via messaging applications, likely platforms for significant amounts of bottom-up misinformation. - Claims: misleading or false claims about the actions or policies of public authorities, including government and international bodies like the WHO or the UN, are the single largest category of claims identified, appearing in 39% of our sample. - Responses: social media platforms have responded to a majority of the social media posts rated false by fact-checkers by removing them or attaching various warnings. There is significant variation from company to company, however. On Twitter, 59% of posts rated as false in our sample by fact-checkers remain up. On YouTube, 27% remain up, and on Facebook, 24% of false-rated content in our sample remains up without warning labels.

Cuan-Baltazar et al. (Apr. 2020) Misinformation of COVID-19 on the Internet: Infodemiology Study	
Link	https://publichealth.jmir.org/2020/2/e18444/
Design	Website analysis
Objective(s)	to evaluate the quality and readability of online information about the coronavirus disease (COVID-19),

methods	Google search on February 6, 2020. Critical analysis of the first 110 hits using the Health on the Net Foundation Code of Conduct (HONcode), the Journal of the American Medical Association (JAMA) benchmark, the DISCERN instrument, and Google ranking.
Results	<ul style="list-style-type: none"> - only 1.8% (n=2) of the 110 websites had the HONcode seal. - The JAMA benchmark showed that 39.1% (n=43) of the websites did not have any of the categories required by this tool, only 10.0% (11/110) of the websites had the four quality criteria required by JAMA. - The DISCERN score showed that 70.0% (n=77) of the websites were evaluated as having a low score and none were rated as having a high score.

Kouzi et al. (Apr. 2020) Coronavirus Goes Viral: Quantifying the COVID-19 Misinformation Epidemic on Twitter.	
Link	https://www.ncbi.nlm.nih.gov/research/coronavirus/publication/32292669
Design	Cross sectional content analysis
Objective(s)	to analyze the magnitude of misinformation that is being spread on Twitter
methods	search on Twitter on Feb 27 2020 using 14 different trending hashtags and keywords related to the COVID-19 epidemic. Assessment of individual tweets for misinformation in comparison to verified and peer-reviewed resources. Descriptive statistics used to compare terms and hashtags, and to identify individual tweets and account characteristics
Results	<ul style="list-style-type: none"> - 673 tweets included. - 66% posted by informal individuals/groups, 19.2% belonged to verified Twitter accounts. - 91.2% of included tweets contained serious content; - 153 tweets (24.8%) included misinformation, and 107 (17.4%) included unverifiable information regarding the COVID-19 epidemic. - The rate of misinformation was higher among informal individual/group accounts (33.8%, p: <0.001). Tweets from unverified Twitter accounts contained more misinformation (31.0% vs 12.6% for verified accounts, p: <0.001). Tweets from healthcare/public health accounts had the lowest rate of unverifiable information (12.3%, p: 0.04).

4.4 Wirksamkeit von Strategien zur Richtigstellung von Falschnachrichten

4.4.1 aggregierte Evidenz

Walter N & Murphy S. (2018). How to unring the bell: A meta-analytic approach to correction of misinformation	
Link	https://psycnet.apa.org/record/2018-23924-001
Design	Metaanalyse
Objective(s)	To assess the effect of correcting misinformation in different settings
methods	<p>Systematic review and metaanalysis</p> <p>Suchzeitraum: März 2017</p> <p>Datenbanken: Google Scholar, JSTOR, Medline, Anfragen an relevante Experten nach unveröffentlichten Daten</p> <p>Eingeschlossene Studien: 45 Paper mit 65 verschiedenen Experimenten (10% unpublished data), 23.603 Teilnehmende</p> <p>Settings: Falschnachrichten zu Gesundheit (n=9 Studien), Politik (n=16), Verbrechen (n=14), Wissenschaft (n=6), Wirtschaft (n=9), andere (n=11)</p> <p>Kontext: Real-World misinformation (n=27); constructed misinformation (n=38) (für den Kontext des Experiments erfunden)</p> <p>Arten der Richtigstellung:</p>

	Fact checking (n=21), appeals to credibility (n=17), coherence (n=19), general warnings (n=3), appeals to consensus (n=4), combination (n=1). Kategorisierung: Vorwarnung (preventive, n=6) vs. Richtigstellung (rebuttal n=56)
Results	<ul style="list-style-type: none"> - Effect of correction on belief in misinformation: moderate, positive, significant ($r = .35$, 95% CI [.26, .44], $p = .0005$), with significant heterogeneity in effect sizes, $Q(64) = 3614.78$, $I^2 = 98.23\%$, $p = .0005$; $n=65$ studies <p>Subanalysen</p> <ul style="list-style-type: none"> - samples: effects differed between student samples and non student samples ($r = .50$, 95% CI [.30, .66], $p = .0005$, $n = 35$) vs. ($r = .14$, 95% CI [.10, .18], $p = .005$, $n = 29$) - general topic associated with the correction had a significant impact on beliefs ($Q(4) = 10.15$, $p = .047$), such that topics related to crime tended to yield stronger effects ($r = .64$, 95% CI [.23, .86], $p = .005$, $n = 14$), followed by health ($r = .27$, 95% CI [.15, .39], $p = .0005$, $n = 9$), marketing ($r = .18$, 95% CI [.08, .29], $p = .001$, $n = 9$), and politics ($r = .15$, 95% CI [.08, .21], $p = .0005$, $n = 16$) - debiasing technique played a significant role in determining effects on beliefs in misinformation ($Q(2) = 10.40$, $p = .006$), as appeals to coherence ($r = .55$, 95% CI [.23, .77], $p = .002$, $n = 19$) produced stronger effects compared with fact-checking ($r = .25$, 95% CI [.18, .32], $p = .0005$, $n = 21$), and appeals to credibility ($r = .14$, 95% CI [.09, .20], $p = .0005$, $n = 17$). - Time to correction: significant difference ($Q(2) = 15.21$, $p = .0005$), between research designs that measured immediate effects on beliefs ($r = .37$, 95% CI [.27, .47], $p = .0005$, $n = 44$), research designs that included a brief filler-task between the correction and the measure of beliefs ($r = .48$, 95% CI [-.09, .82], $p = .095$, $n = 9$), and studies that delayed the outcome measure for at least one day ($r = .13$, 95% CI [.06, .19], $p = .0005$, $n = 11$).

4.4.2 Primärstudien

Bode & Varga. (2017) See Something, Say Something: Correction of Global Health Misinformation on Social Media.	
Link	https://www.ncbi.nlm.nih.gov/pubmed/28622038
Design	Online experiment
Objective(s)	
methods	Randomized online experiment; N=136 randomized to three settings of fictional facebook posts making a false claim about the origin of Zika Virus; <ul style="list-style-type: none"> - a control group without receiving any correction, - intervention group 1 automatically receiving two stories correcting the misinformation (created by the facebook algorithm) and - intervention group 2 receiving posts from two individual commenters discrediting the information and providing links to more scientific texts supporting this (social correction).
Results	<ul style="list-style-type: none"> - Algorithmic as well as social correction significantly reduced misbelief, but the absolute effect was small: Index on a 7 point scale with higher values indicating stronger misbelief, control group vs. algorithmic vs. social correction was 4.07 vs. 3.6 vs. 3.62; representing a reduction of 0.4 points on a 7 point scale. -

Carey JM et al. (2020) The effects of corrective information about disease epidemics and outbreaks: Evidence from Zika and yellow fever in Brazil	
Link	https://advances.sciencemag.org/content/6/5/eaaw7449
Design	Three randomized online survey experiments

Objective(s)	to examine if giving corrective information of the kind that public health campaigns provide to citizens can improve the accuracy of people's beliefs or have other beneficial effects on public attitudes and behavioral intentions
methods	Three online experiments on Zika (n=2) and Yellow fever (n=1); Participants in each experiment randomized to either no information on the condition (control) or a false information that was very likely to be true and its correction (technique of correction not specified)
Results	<ul style="list-style-type: none"> - Participants in experiment 1, 2 and 3: N=1283, 893 and 2173) - Experiment 1 and 2: The treatment failed to reduce mean belief in these myths significantly: <ul style="list-style-type: none"> o In the 2017 experiment, the myths correction treatment had no measurable effect on any of the three mistaken or unsupported claims compared to the placebo condition. o Similarly, the 2018 study found that the myths correction treatment had no measurable effect on misperceptions beliefs overall or in specific beliefs that larvicides cause Zika or that vaccines cause microcephaly in the 2018 experiment, although beliefs in GMO mosquito transmission did decline significantly (P = 0.002). o In both experiments, participants became slightly more confused about other beliefs due to the correction. o no evidence that these experimental effects varied by trust in governmental and health institutions or respondents' predisposition to believe in conspiracy theories - Experiment 3: The treatment diminished beliefs in two of the three targeted misperceptions and reduced overall misperceptions. <ul style="list-style-type: none"> o Myths correction treatment increased belief in one of six true claims about the disease—that yellow fever is spread by the same mosquito as Zika—and diminished belief slightly in another—that yellow fever can be fatal. o The treatment also diminished belief in one of three false claims—that the vaccine can damage the immune system. Beliefs in six of the nine claims unrelated to the treatment were unaffected.

Schmid & Betsch (2019) Effective strategies for rebutting science denialism in public discussions.	
Link	https://www.ncbi.nlm.nih.gov/pubmed/31235861
Design	6 Randomized online experiments and meta analysis
Objective(s)	to assess how to mitigate the influence of a denier on the audience
methods	<p>In six online experiments (N = 1,773), data were collected on the attitude towards a behaviour favoured by science (Experiments 1–4 and 6: vaccination; Experiment 5: taking action against climate change) and the intention to perform this behaviour before and after participants listened to or read a debate with a science denier.</p> <p>Participants first received an interview with a science denier and were then randomly assigned to the following design, determining the rebuttal condition:</p> <p>2 (topic rebuttal versus no topic rebuttal; between subjects) × 2 (technique rebuttal versus no technique rebuttal; between subjects) × 2 (time of measurement: before versus after the debate; within subjects) mixed design.</p> <p>Depending on the condition, a science advocate: was absent from the debate; responded to the denier by using topic rebuttal or technique rebuttal; or responded with a combination of both strategies.</p> <p>The first experiment was conducted among German university students. The experiment addressed vaccination and the debate was presented auditorially as a radio show. results were replicated in more heterogeneous samples (Experiments 2 and 3), in a different language and political landscape (US: Experiments 4 and 6), in a different domain (climate change: Experiment</p>

	5) and in a different presentation format (written: Experiments 2–6). Experiments 2–6 were preregistered.
Results	<ul style="list-style-type: none"> - public discussions with a science denier have a damaging effect on the audience, as revealed by negative changes in attitudes and intentions (pre-post measures): <ul style="list-style-type: none"> o attitude towards a behaviour favoured by science and the intention to perform this behaviour were reduced (attitude: $g = -0.32$, 95% confidence interval (CI): $-0.46, -0.17$; intention: $g = -0.21$, 95% CI: $-0.35, -0.08$). - techniques of rebuttal: <ul style="list-style-type: none"> o Uncovering the techniques of science denial: decreased the influence of the denier (attitude: $g = 0.31$, 95% CI: $0.22, 0.41$; intention: $g = 0.31$, 95% CI: $0.20, 0.42$). o presenting the facts in the discussion: reduced the denier's influence on individuals' intention ($g = 0.33$, 95% CI: $0.24, 0.43$) and attitude (attitude: $g = 0.21$, 95% CI: $0.04, 0.38$). no evidence that topic rebuttal led to a backfire effect; o combination of the two strategies vs. single strategies: no evidence of an additive benefit of the combination. (attitude: $g = 0.14$, 95% CI: $-0.04, 0.32$; intention: $g = 0.09$, 95% CI: $-0.02, 0.20$). - Exploratory subgroup analyses support the notion of motivated rejection of science among certain audiences as a priori beliefs and political ideology moderated the effect of the science denier.

Vraga, E. K. & Bode, L. (2017) Using Expert Sources to Correct Health Misinformation in Social Media	
Link	https://www.researchgate.net/publication/319853685_Using_Expert_Sources_to_Correct_Health_Misinformation_in_Social_Media
Design	Randomized experiment embedded in an online survey
Objective(s)	To test whether the number (1 vs. 2) and the source (another user vs. a scientific organization - Center for Disease Control and Prevention /CDC-) of corrective responses to fake news affect successful reduction of misperceptions in readers
methods	Participants recruited in university setting; in an online experiment, participants were randomized in 5 groups to receive either Twitter feed with a post with no health care information topic (control) or a story making a false claim about Zika Virus outbreak and 4 different ways and persons correcting the information (single person, CDC, single person followed by CDC and CDC followed by a single person)
Results	<ul style="list-style-type: none"> - N=1,384 valid responses. Participants were an average of 19 years old ($M = 19.40$, $SD = 2.97$), underclassmen (82.4%), roughly divided by gender (52.9% female), and relatively diverse (51% White, 15% Black, 21% Asian, 12% Latino) - no significant decrease in Zika misperceptions in the user-only correction vs. control condition ($p = 0.79$). - CDC-only correction significantly reduced misperceptions, compared both to the control ($p = 0.05$) and to the user-only correction ($p = 0.01$), but small absolute effect size - No effect of correction type on perceptions of other users' trustworthiness, $F(4, 1380) = .26$, $p = .90$, partial $\eta^2 = .001$, or on perceptions of the CDC's credibility as a source of information, $F(4, 1882) = 1.28$, $p = .28$, partial $\eta^2 = .004$.

Zurückgestellt: noch kein peer review

Pennycook et al. (2020). Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy nudge intervention.	
Link	https://psyarxiv.com/uwbk9/

Design	Not yet peer reviewed // online experiment
Objective(s)	
methods	Only short overview of first results as publication is not yet peer reviewed
Results	<ul style="list-style-type: none">- We found that a simple accuracy reminder at the beginning of the study – i.e., asking people to judge the accuracy of a non-COVID-19-related headline – more than doubled the level of truth discernment in participants' sharing intentions. In the control, participants were equally like to say they would share false versus true headlines at COVID-19 whereas, in the treatment, sharing of true headlines was significantly higher than false headlines. Our results – which mirror those found previously for political fake news – suggest that nudging people to think about accuracy is a simple way to improve choices about what to share on social media.

5 Interessenerklärungen

Corinna Schaefer, Eva-Maria Bitzer und Günter Ollenschläger haben ein Formular zur Erklärung ihrer Interessen online und frei einsehbar hinterlegt: <https://dngk.de/startseite/vorstand/>

Orkan Okan gibt folgende Förderungen an:

Orkan Okan wird gefördert durch das Bundesministerium für Bildung und Forschung (BMBF), Health Literacy in Childhood and Adolescence (HLCA, FKZ: 01EL1824A) und durch das Bundesministerium für Gesundheit (BMG), Gesundheitskompetente Organisation Schule (GeKoOrg-Schule, ZMVI 1-2519FSB006).