Book of Abstracts

Health communication dynamics in turbulent times

European Conference on Health Communication

4 and 5 November 2021

Online
CONTENTS

Welcome to the 2021 European Conference on Health Communication! .............................................. 9

Keynote 1 | Main Room: Green | Thursday 4 November, 9.15–10.00 CET .............................. 11
    The Digitalisation of Medical Consultation and the Case of Wound Assessment .......................... 11

Keynote 2 | Main Room: Green | Friday 5 November, 13.15–14.00 CET .............................................. 11
    Looking back at the Coronacrisis from the Inside ................................................................. 11

PhD session 1 | Room 4: Orange | Thursday 4 November, 15.30–16.30 CET ....................................... 14
    Academic Failures, Drivers for Future Success ........................................................................... 14

PhD session 2 | Room 4: Orange | Friday 5 November, 10.00–11.00 CET ............................................ 14
    Meet the Editors ...................................................................................................................... 14

General session 1 | Main Room: Green | Thursday 4 November, 9.00–9.15 CET ................................. 16
    Conference Opening .................................................................................................................. 16

General session 2 | Main Room: Green | Thursday 4 November, 16.30–17.00 CET ............................. 16
    Meet the Communication Associations ..................................................................................... 16

General session 3 | Main Room: Green | Thursday 4 November, 17.00–18.00 CET ............................. 16
    Quiz Night ................................................................................................................................... 16

General session 4 | Main Room: Green | Friday 5 November, 14.00–14.15 CET .................................. 16
    Closing and Award Ceremony .................................................................................................. 16

Panel 1 | Room 4: Orange | Thursday 4 November, 10.15 – 11.15 CET ................................................ 19
    Food and Communication: A Study of Mediated Experiences of Health & Nutrition in Contem
    porary Times ............................................................................................................................... 19

Panel 2 | Room 4: Orange | Thursday 4 November, 13.15 – 14.15 CET ................................................ 20
    Pioneering Multi-Disciplinary Health Interventions: Using Prediction Models and User-Centered D
    esign (UCD) to Optimize Personalized Care ............................................................................. 20

Panel 3 | Room 4: Orange | Friday 5 November, 11.15 – 12.15 CET ..................................................... 21
    The Impact of Parent-Provider Interaction in Neonatal Care .................................................... 21

Parallel Session 1 | Thursday 4 November, 10.15 – 11.15 CET .............................................................. 23
    Red Room (Room 1) | COVID Communication: Misinformation ......................................................... 23
    Stop and think! And fake news will be easier to spot ................................................................ 23
    An analysis of Swiss people’s subjectively perceived misinformation regarding the novel corona
    virus ............................................................................................................................................. 24
Communicating personalized outcomes after an emergency: The effects of comparative risk information and message format on peoples’ risk perceptions, affective evaluations, and risk understanding .............................................................. 39

Parallel Session 2 | Thursday 4 November, 11.15 – 12.15 CET .............................................................. 41
Blue Room (Room 3) | Cancer Communication ........................................................................................................... 41
Decisional conflict after deciding on potential participation in phase I clinical cancer trials: the crucial role of satisfaction with the consultation .......................................................................................... 41
Radon health communication: A systematic review of mass media interventions to increase radon testing and remediation ..................................................................................................... 42
Interactive decision aids for cancer screening and treatment options: A systematic review ........ 43
Stakeholder Signals: A systematic review of indoor radon communication interventions’ stakeholder characteristics and their relationship to indoor radon testing and/or remediation behaviour ............................................................................................................................. 44

Parallel Session 3 | Thursday 4 November, 13.15 – 14.15 CET .............................................................. 45
Red Room (Room 1) | COVID Communication: Media .............................................................................................. 45
Problematizing Expectations of Media Coverage During a Once-in-A-Century Pandemic: Lessons Learned from Greece Over Two Waves of COVID-19 ................................................................. 45
“Extremely Serious”: The Relationship Between the Content and Tone of News Reports and the Concerns About COVID-19 in the Spring of 2020 in the Netherlands .................................................. 46
Who is Experiencing Correction Online? Social Media Use, Knowledge, and Information Overload During the COVID-19 Pandemic ....................................................................................... 47
Effects of Information Behavior on Stigmatization of COVID-19 Patients ...................................... 48

Parallel Session 3 | Thursday 4 November, 13.15 – 14.15 CET .............................................................. 49
Yellow Room (Room 2) | Food Communication ............................................................................................................. 49
Real men eat meat, but do they really? Investigating within-sex differences in meat consumption ............................................................................................................................................... 49
Evidence-based Health Communication Strategies to Improve Early Childhood Nutrition: Findings from a Scoping Review of Reviews and a Systematic Review ................................................................. 50
#Teen food: Adolescents’ Social Media Exposure to Food and its Association with Perceptions and Eating Outcomes .............................................................................................................. 52

Parallel Session 3 | Thursday 4 November, 13.15 – 14.15 CET .............................................................. 53
Blue Room (Room 3) | WiP: Mental Health .................................................................................................................... 53
Knowledge production, belonging and trust around mental illness in closed online spaces .......... 53
Suicide prevention for men: A systematic review of (effective?) Communication strategies .... 54
Who is made Responsible for Participation? Supporting Triadic Decision Making - Patients and their Family Members in Information Material about Dementia .......................................................... 55

Media in mental health: An approach to conceptualize the media’s role in the help-seeking of people suffering from mental health issues ................................................................................... 56

Parallel Session 4 | Thursday 4 November, 14.15 – 15.15 CET .............................................................. 58

Red Room (Room 1) | COVID Communication: Nutrition ................................................................................... 58
The Effects of Perceived Social Distancing Disadvantages and Online Media Consumption about COVID-19 on Mental Wellbeing and Alcohol Consumption during the COVID-19 Pandemic ........ 59
Let’s talk about food. Involvement in “social media food identity bubbles” in relation to food choice and dietary quality during COVID-19................................................................. 59
Food Media Exposure, Gratifications Sought and Obtained during COVID-19 in Relation to Changes in Food Literacy among Young Adults .......................................................................... 60
COVID-related changes in Belgian young adults’ food preferences and behaviors: Opportunities for adapted nutritional health campaigns ................................................................................... 60

Parallel Session 4 | Thursday 4 November, 14.15 – 15.15 CET .............................................................. 62

Yellow Room (Room 2) | Health Apps ................................................................................................ 62
Chemified-project | development of a mobile health intervention ........................................................................ 62
Health communication via embodied conversational agents .................................................................................................................. 63
Conversational Agents for Sexual Health Promotion: A Systematic Review ......................................................................................... 63
Using a multilingual ehealth tool to enhance patient participation in migrant patients ............................................................... 65

Parallel Session 4 | Thursday 4 November, 14.15 – 15.15 CET .............................................................. 66

Blue Room (Room 3) | Health Promotion and Wellbeing ..................................................................................... 66
Exploring the Potential of Participatory Theatre for Health Promotion: Insights from a Handwashing Intervention in Sierra Leone ...................................................................................... 66
Protective Gatekeeping: Parents’ Withholding of Information as a Measure of Health Promotion ................................................................................................................................. 67
Disconnection as the key to digital wellbeing? A systematic review of the disconnection literature ......................................................................................... 68

Parallel Session 5 | Thursday 4 November, 15.30 – 16.30 CET .............................................................. 69

Red Room (Room 1) | COVID Communication: Psychology ..................................................................................... 69
Screen media use and well-being among adolescents and young adults during the Covid-19 pandemic: A systematic literature review ...................................................................................... 69
Screen media use and life satisfaction in children and adolescents during the Covid-19 pandemic: A latent growth analysis ......................................................................................... 70
The Influence of Family Communication on Coping during the COVID-19 Pandemic in Germany. 71
I can(not) handle this: the effect of portrayed coping self-efficacy in narratives on readers’
emotions and coping self-efficacy .................................................................................................. 72

Parallel Session 5 | Thursday 4 November, 15.30 – 16.30 CET .............................................................. 73
Yellow Room (Room 2) | Patient Communication (1) ........................................................................ 73
A roadmap to satisfaction, adherence, and well-being? Where we’re heading with patient-
centered communication for cancer treatment decision-making in the Google era ................. 73
Addressing Usability in Health Communication: Understanding the Cognitive Dynamics
Affecting Health Communication Processes ................................................................................... 74
Coordinated cooperation or inappropriate intrusion? A quantitative analysis of the form and
function of interruptions in general practice ................................................................................. 75
Interdisciplinary learning in healthcare communication: Dare to change perspectives .............. 76

Parallel Session 5 | Thursday 4 November, 15.30 – 16.30 CET .............................................................. 78
Blue Room (Room 3) | WiP: eHealth .................................................................................................. 78
Understanding patients’ facilitators and barriers of the entire EHR usage process .................... 78
An autonomy-supportive web-based decision aid to assist smokers in choosing evidence-based
cessation assistance: Short-term findings from a randomized controlled trial ............................ 79
From Start to Finish: Investigating Factors Related to Adoption and Discontinuance of Mobile
Walking Apps .................................................................................................................................. 80

Parallel Session 6 | Friday 5 November, 9.00 – 10.00 CET ..................................................................... 81
Red Room (Room 1) | COVID Communication: Measures ........................................................................ 81
A Culture-Comparative Study on the Adoption of Contact Tracing Apps in Singapore and
Switzerland ....................................................................................................................................... 81
Flattening the curve: Unraveling the persuasive effects of webpage customization on users’
attitudes toward coronavirus health behavior measures .................................................................. 82
Predictors of contact tracing app adoption in the Netherlands: integrating the UTAUT, HBM
and contextual factors .................................................................................................................... 83

Parallel Session 6 | Friday 5 November, 9.00 – 10.00 CET ..................................................................... 84
Yellow Room (Room 2) | Patient Communication (2) ........................................................................ 84
Unexplained versus explained symptoms: the difference is not in patients’ language use. A
quantitative analysis of linguistic markers ...................................................................................... 84
Patient-centered development: online intervention based on Acceptance and Commitment
Therapy for improving quality of life in cancer survivors with chronic chemotherapy-induced
neuropathic pain ............................................................................................................................. 85
Patient values in discussions about potential participation in phase I clinical cancer trials: a qualitative analysis ......................................................................................................................................................... 86

The third party in shared decision making. The role of extra participants in discussions between health professionals and patients............................................................................................................................................ 87

Parallel Session 6 | Friday 5 November, 9.00 – 10.00 CET............................................................................. 88

Blue Room (Room 3) | WiP: COVID .......................................................................................................................... 88

Willingness of young people in Slovenia to vaccinate against COVID-19: How should public health authorities address them to reduce their vaccine hesitancy? ........................................................................................................ 88

A chatbot as an intervention to foster public engagement with the COVID-19 vaccines ........................................ 88

The use of digital posters in health communication during COVID-19 pandemic case: Macedonia .................................................................................................................................................................................. 90

Mis- and Disinformation during Pandemics: Attributions of Causal Responsibility in Turbulent Times ............................................................................................................................................................................. 91

Parallel Session 7 | Friday 5 November, 10.00 – 11.00 CET......................................................................... 92

Red Room (Room 1) | COVID Communication: Vaccination ......................................................................................... 92

Evaluation of a text-based debunking intervention for countering misinformation on COVID-19 mRNA vaccines ........................................................................................................................................................................ 92

Communicating about vaccines in a complex information environment: Exploring the influence of attitudes, organisational credibility, and vaccination information before and after COVID-19 ......................................................................................................................................................................................................................... 92

The relationship between vaccines media coverage and uptake rates: learning from COVID-19 pre-pandemic to tackle vaccine hesitancy .................................................................................................................. 94

Mapping vaccine readiness and testing effective communication strategies among youngsters (16-25 years) in Belgium ........................................................................................................................................................................ 95

Parallel Session 7 | Friday 5 November, 10.00 – 11.00 CET......................................................................... 96

Yellow Room (Room 2) | Alcohol Use (I) ........................................................................................................................................ 96

#Drinkstagram? An Experimental Study Disentangling the Impact of Different Types of Alcohol-Related Instagram Posts on Alcohol Cognitions ........................................................................................................................................................................ 96

Like to Drink: Dynamics of Liking Alcohol Posts and Effects on Alcohol Use ........................................................................................................................................................................................................................................................................................................... 97

Dynamics of Alcohol Use and Online Display among Adolescents. Investigating Selection Processes, Exposure Effects, and Self-effects ...................................................................................................................................................................................... 98

Parallel Session 7 | Friday 5 November, 10.00 – 11.00 CET................................................................. 100

Blue Room (Room 3) | Mental Health ........................................................................................................................................... 100
Responses to Comics in Mental Health Communication on Instagram: Insights from a Quantitative Survey ................................................................. 100
Systematic review of determinants and consequences of bystander interventions in online hate and cyberbullying among adults ................................................................. 101
Stigmatization of People with Depression or Burn-out: An Experimental Investigation ......................................................... 106

Parallel Session 8 | Friday 5 November, 11.15 – 12.15 CET ................................................................. 107
Red Room (Room 1) | COVID Communication: Risk Perceptions ................................................................. 107
Identifying Subgroups at Risk for Non-Adherence to COVID-19 Preventive Measures Based on Risk Perceptions and Media Use: A Latent Profile Analysis ................................................................. 108
Dancing on thin ice: the importance of respectful, coordinated and trustworthy health communication during the pandemic ................................................................. 109
How social and news media relate to health-related risk perceptions: An ecological momentary assessment ................................................................. 110

Parallel Session 8 | Friday 5 November, 11.15 – 12.15 CET ................................................................. 111
Yellow Room (Room 2) | Alcohol & health food ................................................................. 111
The Role of Proximal and Distal Norms in Exposure to Alcohol on Private and Public Social Media Features and Emerging Adults’ Alcohol Use ................................................................. 111
Let’s share our drinks! Applying the Prototype Willingness Model to Self-Sharing of Alcohol-Related Social Media References ................................................................. 112
Priming motivationally-relevant pro-nutritional images in cafeteria can double children’ selection of healthy foods for consumption ................................................................. 113

Parallel Session 8 | Friday 5 November, 11.15 – 12.15 CET ................................................................. 114
Blue Room (Room 3) | WiP: Health Communication ................................................................. 114
The role of critical nutrition literacy in the effect of contradictory information on nutrition confusion and nutrition backlash in young adults: an experimental study ................................................................. 114
Individual empowerment from a health communication lens: Negotiating meaning between health and disease ................................................................. 115
Effective Strategies for Crisis Communication on Social Media by Clinics in Austria, Germany and Switzerland. Goals, Theory and Methods ................................................................. 116
Implicit measure of health goal facilitation and interference ................................................................. 117
WELCOME TO THE 2021 EUROPEAN CONFERENCE ON HEALTH COMMUNICATION!

We are very pleased to welcome everyone to the third European Conference on Health Communication.

After the first onsite conference in Zürich in 2019, and a small virtual conference organized by the University of Erfurt in 2020, this year’s virtual conference is a joint cooperation between researchers of the University of Amsterdam, Radboud University and HU University of Applied Sciences Utrecht in the Netherlands, and the University of Antwerp in Belgium.

The theme of the conference is “Health communication dynamics in turbulent times”. We aim to provide a platform for scientists to discuss the role of communication about health and health-related issues in the context of rapidly changing media environments and technological developments, as well as in the context of current public health crises.

Over the course of two days, there will be two keynote talks, three panel sessions, 8 parallel sessions with almost 90 presentations, two PhD sessions, a ‘meet the editors’ session, a quiz night, and plenty of opportunities to meet old friends and make new ones.

We hope that you will enjoy the conference, and wish you two inspiring days of networking!

Should you have any questions, please do not hesitate to contact us at echc2021@gmail.com or visit www.echc2021.eu for any last-minute updates about the conference programme.

Enjoy the ECHC2021!

Best wishes,

The Organizing Committee

Hanneke Hendriks (Radboud University Nijmegen)  
Gudrun Reijnierse (Radboud University Nijmegen)  
Enny Das (Radboud University Nijmegen)  
Gert-Jan de Bruijn (University of Antwerp)  
Heidi Vandebosch (University of Antwerp)  
Hans Vehof (University of Applied Sciences Utrecht)  
Julia van Weert (University of Amsterdam)

We would like to thank our sponsors:
Keynotes
The Digitalisation of Medical Consultation and the Case of Wound Assessment

Dr. Wyke Stommel, Radboud University Nijmegen, The Netherlands

The rise of videomediated communication is one result of the current turbulent times, also in the health domain. Research on the use of video-mediated technology for medical consultations is increasing rapidly, but most of it is based on questionnaires and interviews. Conversation Analysis may be used to gain insights in the moment-to-moment organization of video-consultations compared to traditional consultations. In this presentation I examine the activity of wound assessment in post-surgery consultations as a case in point comparing the face-to-face and video setting. We found that while the face-to-face setting involved wound showing, the video-mediated assessment was mainly based on talk. I will show that the impact of video technology on postoperative consultations is that a conclusive wound assessment is arrived at in a different way when compared to face-to-face consultations. This implies that in video consultations, patients (and physicians) have a fundamentally different role.

Bio
Wyke Stommel is an Associate Professor of Language and Communication at Radboud University Nijmegen, The Netherlands. Wyke’s research concerns spoken and mediated communication (video, instant messaging, chat) and institutional interaction (physician-patient, counselling, decision making, polite interrogations, etc.) On the basis of conversation analysis. This frequently involves direct collaboration with professionals from the various settings (Trimbos Institute, radboudumc, Korrelatie) and training of professionals.

Looking back at the Coronacrisis from the Inside

Koen Wauters, science journalist at VRT

The corona crisis brought science journalism from a modest place in news coverage to the forefront. That sudden turnaround was a challenge, to say the least. In this presentation I want to look back at it from the inside.

Science journalists, for example, are used to explaining difficult topics in an accessible way, they want to inform the public. That went well during the crisis. Although it remained difficult to explain that science does not offer certainties, more so, that doubt is inherent in scientific research.

In addition, the messaging also had a big impact on the public. But journalism and politics also allowed themselves to be led too much by the feelings of the public. In retrospect, we did not keep enough distance from the general sentiment.
At the same time, much of the communication came in the hands of scientists themselves, in part because politicians (especially during the first wave) did not want to communicate. Scientists were forced into the role of decision maker. Were we critical enough for that?

*Bio*
Koen Wauters is a science journalist at the Flemish public broadcaster VRT. He works mainly for the television news, but also for the website and the various radios of VRT. He has been following scientific research in the broad sense of the word for ten years, but for the past year and a half has been exclusively concerned with corona.
PhD Sessions
Academic Failures, Drivers for Future Success

Prof. Dr. Elena Semino, Lancaster University, UK

In academia, there is a strong drive to succeed and be perceived as successful. After all, it helps us advance in our academic careers, doesn’t it?

Well, success isn’t always on our side. Failure, rejection, and bad luck are all part of working in academic fields, and even though we often see the successes of our colleagues, they fail too! In fact, failure is not necessarily a setback, but can be a good way to reassess our goals, drive them forward, and learn for the future.

In this dedicated session for PhD researchers, we want to open the conversation around academic failures. Prof. Dr. Elena Semino teaches English language and Linguistics at Lancaster University and has acquired many insightful experiences in publishing, researching, and guiding PhD candidates. During this interactive session, she will share her experiences of failure in academia, and reflect on how to cope with them, and learn from them. With this, we hope to help early-career academics feel safe discussing not only their successes, but their failures as well.

Meet the Editors


Find out how to get your articles published at the “Meet the Editors Session”

One of the special online events at the ECHC is the “Meet the Editors Session,” where three journal editors will give their advice on how to write papers for successful publication and highlight common pitfalls to avoid during the submission and revision processes. The editors are affiliated with Mobile Media & Communication, Patient Education and Counseling, and the European Journal of Health Communication. Everybody is welcome to join, though the session is particularly relevant to early career researchers. The discussion will be led by Professor Julia van Weert (UvA).
General Sessions
GENERAL SESSION 1 | MAIN ROOM: GREEN | THURSDAY 4 NOVEMBER, 9.00–9.15 CET

Conference Opening

Opening remarks and housekeeping.

Chair: Julia van Weert | Co-chair: Hanneke Hendriks

GENERAL SESSION 2 | MAIN ROOM: GREEN | THURSDAY 4 NOVEMBER, 16.30–17.00 CET

Meet the Communication Associations

A great chance to network with conference attendees and representatives from three communication associations: Doreen Reifegerste (ECREA), Marcy Rosenbaum (EACH), and Ashley Duggan (ICA). After a brief introduction by the three associations, there is time talk to the representatives in separate break-out rooms.

Associations: ECREA, EACH, ICA

Chair: Julia van Weert | Co-chair: Hanneke Hendriks/Gudrun Reijnierse

GENERAL SESSION 3 | MAIN ROOM: GREEN | THURSDAY 4 NOVEMBER, 17.00–18.00 CET

Quiz Night

What is a conference without a social programme?! Bring your own snacks & drinks. We will decide the teams and provide the questions 😊

Chairs: Lauranna Teunissen / Paulien Decorte

GENERAL SESSION 4 | MAIN ROOM: GREEN | FRIDAT 5 NOVEMBER, 14.00–14.15 CET

Closing and Award Ceremony

Join us for a festive session to end the conference!

Chairs: Julia van Weert and Gert-Jan de Bruijn | Co-chair: Gudrun Reijnierse
Panel Sessions
Food and Communication: A Study of Mediated Experiences of Health & Nutrition in Contemporary Times

Isabelle Cuykx, Rupali Sehgal, Bhavna Middha, Katrien Maldoy, Ralph Horne, Tania Lewis, Lauranna Teunissen, Paulien Decorte, Heidi Vandebosch, Hilde Van den Bulck, Sara Pabian, Kathleen Van Royen, Karolien Poels and Charlotte De Backer

Media undoubtedly have an impact on our relationship with food. It is well-known that mediated food content can influence many food aspects, going from feeling hungry to influencing peoples’ attitudes on food and even their taste preferences. First, media can influence what aspects we consider important when choosing foods, such as a shift toward a higher emphasis on health and sustainability. Even the interpretation of what is assumed to be healthy is partly determined by media such as TV, as will be further elaborated in our first abstract. Second, media can also impact purchasing behavior; for example, new digital media provide many opportunities to order groceries or meals online, as the second abstract will further explain. Third, people derive many different gratifications from food content. Food media are not only an important source of education; they also serve, amongst others, for entertainment purposes, and for connecting with others. Nevertheless, it is unclear which media fulfill which gratifications, a topic that the third abstract will discuss in more detail. Last, digital food media might provide a useful substitution for social aspects when eating together is no longer possible, for example, due to a pandemic, as will be further discussed in the fourth abstract.

For this panel, we start with a presentation about a textual analysis of narratives on ‘eating the right way’ in contemporary cooking shows on TV. We then focus on how digital food practices, such as ordering food online, have evolved during the COVID-19-pandemic regarding sustainability, waste and health. Third, we zoom in on why people use food media; which expectations and fulfilled gratifications, such as learning about health, or finding social connections, correlate with the use of which food medium? To finish, we zoom in on these social connections, with an abstract on e-drinking, e-dining and digital well-being during COVID-19.
Pioneering Multi-Disciplinary Health Interventions: Using Prediction Models and User-Centered Design (UCD) to Optimize Personalized Care

Leonie Westerbeek, Kelly de Wildt, Stephanie Medlock, Lotta Seppala, Annemiek Linn and Julia van Weert

Falls have become one of the leading health issues and the leading cause of injury among senior citizens aged 65 and. Studies have shown that medication plays an important role in elderly people’s fall risk. Contrary to other risk factors for falls such as visual, orthopedic or vestibular impairments, medication is one of the most modifiable risk factors for falls. Altering a patient’s medication can contribute to lowering the fall risk. However, deprescribing is a precarious process as older patients usually do take their medication for good reasons. A Clinical Decision Support System (CDSS), which links patient health data with health knowledge (e.g. Computer-interpretable guidelines) to guide clinical decision making, can help health professionals during this process. This helps the clinician to manage and process health data, and especially to communicate this information effectively. On the patient side, usage of a patient portal can help to improve communication with the patient.

In order to develop an effective intervention to enhance the communication process between patients and healthcare professionals regarding older patients’ medication-related fall risk, several steps need to be taken. Firstly, it requires identification of individuals with a high risk of falling. An effective way of doing so is by developing a prediction model that uses patient data to calculate a personal fall risk. However, it is difficult to ensure that these models have a high predictive performance. Once such a model has been created, the fall risk and advice for lowering it must be communicated effectively to the relevant health professional (e.g. General practitioner or geriatrician). This can be done through a CDSS on the health professional side and through a patient portal for the senior citizens. Of course, this also comes with challenges. How can health professionals be convinced to use this system? And how will an older population cope with using a digital patient portal?

As is evident from the commentary above, developing effective interventions for preventing medication-related falls among senior citizens requires collaboration between multiple disciplines and comes with several challenges. In the current panel, we aim to provide an up-to-date overview of the ongoing multidisciplinary research that is being conducted on this topic. Speakers from different disciplines will discuss their advancements, pitfalls and opportunities. The panel will contain a brief overview of clinical decision support and its overlap with health communication, an update of prediction models for predicting older patients fall risk, usability testing of a CDSS and patient portal to be used in the falls clinic, and the development of a CDSS for a fall prevention intervention among general practitioners. The panel will be briefly introduced and will end with a general discussion that sheds light on the opportunities and challenges of this multidisciplinary research line.
INTRODUCTION: Each year, approximately 15 million infants are born preterm. This amounts to ten percent of all infants born worldwide. Preterm infants often need prolonged support, e.g., for breathing, nutrition, and regulation of body temperature. They are prone to complications like infections, visual and hearing problems, and severe bowel problems and their risk of delayed psychomotor development is increased. Mortality rates among preterm infants are high. The lower the gestational age, the more support infants need and the higher their risk for long-term adverse outcomes. Preterm infants are admitted to the neonatal (intensive) care unit (NICU), where they often spend weeks to months. Preterm birth also negatively impacts parents, who often suffer from post-traumatic stress, anxiety, and depression following infant hospitalization. During infant hospitalization in the NICU parents continually engage in communication with healthcare staff. Communication between parents and providers serves important clinical goals. Through interaction information is relayed, consent is obtained, and decisions are made. In addition, communication can foster collaboration between parents and staff and thereby reduce parental stress. Family-centered care models strongly encourage effective parent-provider communication, to provide care that fits individual families’ needs and that positively impacts outcomes for infants and parents alike.

OBJECTIVES: The proposed panel provides an in-depth exploration of current research in parent-provider interaction in the NICU. A recent systematic review shows that the numbers of studies on communication in the NICU have increased considerably over the past five years. The intricate complexities of parent-provider interaction in a highly technical and stressful environment have led researchers to search for ways to build theoretical models of the role and effects of parent-provider communication and to tangibly improve communication in practice. In this panel, we aim to discuss the current state-of-research, the main challenges in this field of study, and directions for future endeavors.

PANEL ORGANIZATION: Following a brief introduction by the panel moderators on the importance of communication in both day-to-day interactions with parents as well as during end-of-life settings in particular, five panelists will present their work on (1) the current needs and gaps in communication as perceived by NICU parents; (2) how doctors can involve families in the decision-making process regarding continuation or discontinuation of life sustaining treatment; (3) parental sense-making through alternative-offering questions in the NICU; (4) mobile health technologies as a tool for information-provision; and (5) the impact of parent-provider interaction on providers’ work-related stress and satisfaction. The panelists report on studies using varied methods, including observational designs, interviews, text analysis, and survey research. Following their presentations, panelists and moderators will engage in a discussion with the audience, led by a referent (a pediatrician-neonatologist), about the future directions for research in this field.
Parallel Sessions
Stop and think! And fake news will be easier to spot

*J. Kruijt, C. S. Meppelink and Lisa Vandeberg*

**Background** Much information about Covid-19 has been spread on social media, but the amount of fake news is troublesome. Especially since people consume information on social media with little attention and, accordingly, they are more likely to perceive news on these platforms as trustworthy. Prior research has shown that people are able to identify fake news as long as they evaluate messages deliberately. As a next step, we explore whether a single-sentence recommendation added to a social media newsfeed can effectively shift people’s information processing mode from the unconscious processing system towards a conscious one. This study investigates whether an evaluative thinking recommendation improves people’s ability to correctly identify Covid-19 news messages as fake and, subsequently, decreases people’s trust in these messages and intentions to share them. Furthermore, individual characteristics are taken into account.

**Method** An online experiment was conducted in the spring of 2021. Participants (N = 207) were exposed to a Twitter newsfeed consisting of both correct and fake news messages about Covid-19. In the experimental condition, the pre-tested and literature-based recommendation “Stop and think before trusting and sharing online information: evaluate the content and the source!” was added to the newsfeed. In addition, trust in and identification of fake news, sharing intentions, information literacy, and impulsivity were measured.

**Results** Participants in the recommendation condition were better able to identify fake news correctly (M = 0.47, SD = 0.36) than participants in the control condition (M = 0.30, SD = 0.45; F(1, 205) = 8.52, p = .004, n2 = 0.040), and subsequently they had lower trust in fake news messages (b = -0.38, 95% CI [-0.69;-0.12]) and lower intentions to share fake news, both online (b = -0.29, 95% CI [-0.53;-0.09]), and offline (b = -0.24, 95% CI [-0.45;-0.07]). Furthermore, the results showed that personal characteristics might affect the effectiveness of the recommendation. A mediated moderation effect for information literacy was significant at p <.10 level; (b = -0.08, t(202) = -1.88, 95% CI [-0.16;0.00], p = .062). The positive effect of the recommendation on fake news identification was strongest among people with low (b = -0.53, 95% CI [-0.96;-0.16]) and moderate (b = -0.32, 95% CI [-0.61;-0.06]) levels of information literacy, whereas no significant differences between the conditions were observed among people with high levels of information literacy (b = -0.10, 95% CI [-0.42;0.21]). No interaction effect was found for people with different levels of trait impulsivity (b = -0.04, t(203) = -0.27, 95% CI [-0.54;0.66]).

**Conclusion** A simple, single-sentence recommendation to stop and think before trusting information is an effective measure to help people correctly identify fake news and, accordingly, decrease the trust in fake news and intentions to share fake news. It is promising that people with low and moderate levels of information literacy seem to benefit most from the recommendation because they can benefit most. Impulsivity doesn’t play a role. Altogether, the study shows that this scalable and low-cost intervention could be a viable way to fight misinformation on social media.
An analysis of Swiss people’s subjectively perceived misinformation regarding the novel coronavirus

Sabrina Heike Kessler, Anna Jobin and Fanny Georgi

Introduction Since the COVID-19 pandemic began, a large amount of misinformation has been disseminated worldwide. This is seen as problematic for containment, as it could discourage citizens from vaccinating, for example. It would also be problematic in Switzerland, where around a quarter of the population is skeptical about COVID-19 vaccination. However, little is known about what subjectively perceived misinformation the Swiss have encountered so far.

RQ1: What subjectively perceived misinformation regarding the novel coronavirus have Swiss people encountered so far?

RQ2: Where have Swiss people encountered this misinformation?

RQ3: To what extent is the frequency with which Swiss people have encountered misinformation related to their information behavior?

Method We conducted an online survey in Switzerland that is representative in terms of age, gender and education (N=1,129; n=741 from German-speaking Switzerland; n=387 from French-speaking Switzerland; 52.4% female; Mage=48; SD=15) in April 2021 and asked openly: "What misinformation (fake news) have you already come across with regard to the novel coronavirus? And where?" A trained coder content-analyzed and thematically bundled the open answers. We measured information behavior regarding COVID-19.

Findings Respondents mentioned 1,443 instances of misinformation. Each respondent mentioned an average of 2.5 instances (SD=1.9). Men stated that they encountered misinformation significantly more often than women did (F(1,1051)=14.62, p<.001; f =.12) but did not name significantly more misinformation.

The most frequently mentioned examples were on the virus’s origin (n=195); followed by statements such as that the virus is harmless (n=157) or does not exist (n=83); next was misinformation about death, test, or infection rates (n=182), masks (n=103), vaccination (n=167), tests (n=28), preventive interventions (n=50), contagion and transmissibility (n=71), various protective and curative products (n=133), and a conspiracy of those in power to create the pandemic (n=128). The sources were mostly social media (n=197), media and press (n=186), the internet (n=119) in general, television (n=100), politicians (n=93), and friends and family (n=72).

25% said they encountered misinformation about COVID-19 at least daily and 40% at least once a week since the pandemic. Only 14% said they had not yet done so. People who more frequently used television as a source of information on COVID-19 encountered significantly less misinformation (r=-.12; p<.001; 95%-CI:.05 to .18), and people who used scientific (r=.16; p<.01; 95%-CI:.26 to .15) or popular science magazines (r=.20; p<.01; 95%-CI:.22 to .11) stated that they encountered misinformation more frequently.

A multiple regression analysis shows that sociodemographic factors and media use influence the frequency of misinformation encounters (F(20,902)=5.26, p<.001, n=1,053; f =.34; 95%-CI:3.1 to 4.5).
However, the independent variables explain only 10% of the dispersion encounter frequency. The higher the respondents’ educational attainment, the more often they mentioned that they encounter misinformation ($r=.151; p<.001; 95\%-CI:.21 to .09)$.

**Conclusion** Most Swiss people encountered misinformation about COVID-19, can name examples, and can identify sources. We also found correlations between the use of information on COVID-19 and the frequency of identifying misinformation. Our findings indicate that more highly educated people and those who read scientific literature for information on COVID-19 may have a higher competence in recognizing misinformation.

---

**Assessing the Reciprocal Relationships Between Media Use and COVID-19 Conspiracy Beliefs across Four Waves in a Representative Dutch Sample**

*Marloes M.C. van Wezel, Emiel J. Krahmer, Ruben D. Vromans and Nadine Bol*

**Introduction** Conspiracy theories about the origin, impact and treatment of the coronavirus have circulated since its outbreak, which can impede people’s adherence to preventive measures and willingness to get vaccinated for COVID-19. Still, it is unknown to what extent different media sources play a role in how people form conspiracy beliefs. Several scholars have pointed at the rise of digital media as the culprit of creating and disseminating conspiracy theories. Indeed, their underlying algorithms filter out contents that users dislike, in order to create a personal “filter bubble,” where individuals only encounter contents that align with their existing beliefs. Despite this pressure point, the impact of (digital) media use on conspiracy beliefs – and vice versa – is still debated on. Therefore, we investigated the reciprocal relationships between use of different media sources and COVID-19 related conspiracy beliefs.

**Method** In this 4-wave panel study, data were collected among a representative Dutch sample (N=1,166) in May, June, July, and October 2020. Per wave, people indicated how often, in an average week, they used different media sources to receive information about the coronavirus. Media use was aggregated into four categories (i.e., traditional media, online news media, online health sources, and social media). Beliefs in COVID-19 conspiracy theories were measured with three conspiracy statements per wave (e.g., “The coronavirus was developed in a Chinese laboratory”), which were averaged into mean scores. For each media use category, we performed a random intercepts cross-lagged panel model (RI-CLPM) to assess whether using specific media sources promoted changes in conspiracy beliefs, or vice versa. Two random intercepts (for media use and conspiracy beliefs) were included to represent the stable, time-invariant differences between individuals. Furthermore, lagged and autoregressive paths between eight latent variables (i.e., four time points for media use and four time points for conspiracy beliefs) were defined to represent the within-person changes in media use and conspiracy beliefs, and their associations, over time.

**Findings** Respondents were on average 56 years old (SD = 17.32, range = 18 – 103), and 50.3% were female (N = 586). Roughly 1–2% of the sample believed the selected conspiracy theories, though this belief was unstable over time. RI-clmps revealed that, within individuals, using certain media...
sources to gather information about COVID-19 did not lead to changes in conspiracy beliefs, or vice versa. However, significant correlations at the group level indicated that more frequent use of online health sources and social media were associated with higher levels of conspiracy beliefs.

**Conclusion** The relationships between media use and conspiracy beliefs seem more complex than our model could show, and underlying processes at an individual level may have hindered the revelation of causal effects. In contrast with a proposed “conspiracy mindset,” conspiracy beliefs in our study were unstable over time, even though the statements per wave were believed by roughly equal numbers of people. Hence, underlying processes should be investigated at the individual level to develop tailored communication strategies to combat the ongoing infodemic.

**PARALLEL SESSION 1 | THURSDAY 4 NOVEMBER, 10.15 – 11.15 CET**

**Yellow Room (Room 2) | Vaccination Communication**

**An Cross-Cultural Investigation Into COVID-19 Vaccination Campaign Message Design – Same Sentiment – Different Delivery?**

*Isabell Koinig and Sandra Diehl*

Pandemics qualify as a form of crisis (Saliou 1994), or situations in which individuals lack experience, therefore actively looking for guidance (Gray et al. 2012). Crisis communication then helps sensitize people for the risks associated with the crisis and encourages them to adopt preventive measures (Coombs 2007). Just like in other crises, COVID-19 requires “well-coordinated health communications” to assist individuals in managing their daily lives under uncertain circumstances (Reynolds & Quinn 2008). Saliou (1994) further stresses the relevance of continuous communication for previous epidemics and pandemics, including information on how the public can become actively engaged and help overcome the crisis.

Health messages are important sources of information to create awareness for the health threat (Covello 2003). Health messages for which the government is the identified source rank high in relevance and credibility (Li et al. 2016; Shuaib et al. 2014, Wabba 2014) as individuals believe that the government has the power to control the crisis (Goodwin & Sun 2014). Health messages as employed by the government are also referred to as Public Service Announcements (psas, Murry et al. 1996). Psas are conceptually different from commercial messages since they are primarily concerned with changing individual behavior (Manganello et al. 2020). Messages during crisis should be both instructing and adjusting, the prior informing the public of precautionary measures to take to prevent physical harm, while the latter offers individuals guidance on how to cope with the psychological threats brought about by the crisis. Hence, messages usually center on risk reduction strategies (Coombs 2007), which offer information on both the risks associated with the crisis and the benefits associated with following the nation-wide measures proposed by the government (Reynolds & Seeger 2005).
Serving as important sources of information regarding health risk perceptions and health behaviors, messages need to match the audience’s literacy levels (Smith 2006), which has been found to be rather limited (Sonderheimer 2019, Paakkari & Okan 2020). Hence, the purpose of this study is to find out how health messages in form of psas are designed to promote COVID-19 vaccination uptake worldwide. As part of a content analysis of COVID-19 vaccination ads from selected countries (including South and North America, Europe, Asia and Africa), we analyze whether emotional or informative advertising appeals dominate, the role testimonials play, which storytelling tools are utilized, and the reasons provided as to why people should get vaccinated. The goal of our study is to identify differences and similarities in health campaigns that for once are aired around the same time in almost all countries around the world. Results indicate that campaigns rely on emotional appeals and storytelling elements to the largest part, appealing to individuals to get vaccinated in order to achieve some king of “new normal”. Moreover, messages are reduced while community ambassadors or celebrities are commonly utilized to obtain compliance on part of the affected population. In conclusion, implications, limitations and directions for future research are discussed.

**Online participation in vaccination communication on Facebook in Sweden: motivations, sociality, and visibility**

*Pavel Rodin*

Vaccination communication is one of the issue-specific areas of health communication (HC) that got spotlighted during the COVID-19 pandemic. Modern-day communication consists of a complex constellation of multiple actors, platforms, and voices. Messages from institutional actors coexist and compete with messages produced and spread by laypeople without formal training in the subject of matter. The visibility and extent of lay participation are possible due to social media platforms.

The alignment between lay and expert framings can influence the effectiveness of institutional HC. If social media users criticize official messaging, propose alternative frames, spread rumors or misinformation, they obstruct or undermine HC strategies. On the other hand, support and acclamation on social media can reinforce and facilitate HC.

Institutional actors, their goals, obligations, and strategies have traditionally been at the core of communication research. However, account for social media multivocality requires a more audience-oriented approach. In the social media context, audiences are not just a target for HC since some laypeople also participate in the communication. There is a need to understand laypeople’s motivations for online participation.

Sweden presents an interesting case because vaccination there is voluntary, yet vaccination rates are among the highest in the world. This requires effective communication strategies and trust in institutions (Tafuri et al., 2014). However, there has been a recent history of public concerns about vaccine safety even before COVID-19.

The present exploratory study draws on eleven in-depth interviews with Swedish Facebook users to explore motivational factors for lay participation in vaccination communication. Utilizing Peter
Dahlgren's (2011) model for online participation, the study brings insights into motivations and relationships between motives for participation, forms of sociality, and levels of visibility on Facebook.

The contributions of this study are threefold. Firstly, it identifies three dominant clusters of motives for participation: personal interest, information brokerage, and persuasion. Secondly, Facebook sociality is characterized by asynchronous written communication, loops of repetitive debates, and widespread hostility. Thirdly, degrees of social media content visibility set up "zones of peace" (where users create safe, critique-free communication spaces using platform affordances and establishing norms of interaction) and "zones of fight" (open sub-arenas where various views on vaccination are debated). Participation within open sub-arenas on Facebook is motivated by three goals, (1) to secure the "presence" of diverse views, (2) to reach "undecided" audiences with information about vaccines, and (3) to create opportunities for private interactions among interested users. Moreover, the study finds that the identified forms of sociality and levels of visibility can both strengthen and undermine user motivations.

The growing challenge for institutional actors in vaccination communication and public health is how to deal effectively with supporting and opposing communication by laypeople.

References


The effectiveness of using a two-sided message and freedom of choice strategy to reduce vaccine hesitancy

Simone Krouwer, Toni Claessens, Karolien Poels and Heidi Vandebosch

Introduction There is a need for evidence-based communication strategies to reduce vaccine hesitancy. Current pro-vaccination campaigns often try to convince citizens by providing factual arguments about the importance and safety of the vaccine(s), followed by an explicit recommendation to take the vaccine(s). However, one issue that often arises with these types of persuasive health messages, is that they evoke ‘psychological reactance’, especially among individuals that are not yet convinced. Reactance theory poses that when individuals feel threatened in their perceived freedom, they will try to restore this, by using different strategies to resist being influenced, such as thinking and doing the opposite of what is recommended. However, studies that have been conducted in other contexts have also suggested several message strategies that can potentially reduce reactance, and increase the acceptance of the message and subsequent behavior.

This study aimed to investigate the effectiveness of two of these strategies to decrease reactance, and increase positive attitudes and willingness to get vaccinated among vaccine-hesitant individuals: (1) providing a two-sided message, which means that that the message includes not only positive
information (in this case: pro-vaccination arguments), but also discusses concerns and questions (about the vaccines), and (2) explicitly reminding citizens of their freedom of choice (to either accept or refuse the vaccine).

**Methodology**  We have conducted an online experiment using a 2 (message sidedness: one-sided versus two-sided) x 2 (choice emphasizing message: yes / no) between-subjects design. 179 participants (Mage = 41.86 years, 61.5% female) who indicated that they still had some concerns or doubts about getting vaccinated against COVID-19, were asked to imagine that their local pharmacist provided them a brochure about the vaccines. Next, participants viewed one of the 4 different brochures. The two-sided brochures discussed both the benefits of vaccination, as well as several concerns, while the one-sided brochures only discussed the benefits of vaccination. Freedom of choice was manipulated through 2 sentences at the beginning and end of the brochures. These sentences either stressed freedom of choice (e.g. “the choice is yours”), or provided the explicit recommendation to get vaccinated (e.g. “getting vaccinated is clearly the right thing to do”).

**Findings**  Results showed that providing a two-sided brochure significantly decreased (1) reactance, and (2) perceived barriers to get vaccinated, and increased (3) perceived information utility, (4) perceived credibility of the brochure, (5) perceived benefits of vaccinations, and (6) intentions to get vaccinated against COVID-19. Mediation analysis showed that the decrease in reactance explained message evaluations and behavioral intentions.

The choice emphasizing message also directly decreased (1) reactance, and increased (2) perceived information utility, (3) perceived credibility of the brochure, (4) and perceived benefits of vaccination. Furthermore, indirect effects of the choice emphasizing message have been found on (5) decreasing perceived barriers against vaccination and (6) increasing intentions to get vaccinated, via a decrease in reactance.

No interaction effects were found.

**Conclusion**  Both providing a two-sided message and emphasizing freedom of choice are promising strategies to reduce reactance and increase positive evaluations and vaccine uptake among vaccine- hesitant individuals.

**Facts tell, stories sell? Assessing the mechanisms underlying the persuasive effects of anti-vaccination narratives**  

*Lisa Vandeberg, Corine Meppelink, José Sanders and Marieke Fransen*

**Introduction**  Vaccine hesitancy is an important threat to global health. Online texts conveying vaccine-critical sentiments often appear in an appealing narrative format, describing people’s negative experiences with vaccination. Since personal narratives are often more attractive and persuasive than impersonal expositories containing facts and figures, such narratives may negatively affect public perceptions of vaccine safety and vaccination intentions. In this study, we scrutinize the mechanisms underlying the effectiveness of vaccination narratives by examining whether the persuasive effects of
personal narratives (versus impersonal expositories) about early-childhood immunization can be explained by a reduction in cognitive resistance, and whether such narrative effects are more pronounced as people are increasingly vaccine-hesitant (versus vaccine-positive).

**Methods and analysis** In an earlier exploratory experiment with 420 participants, we found that reading anti-vaccination narratives (versus reading anti-vaccination exposés) resulted in decreased cognitive resistance and decreased attitude certainty, especially for people with relatively neutral (versus extremely positive) vaccination attitudes. In a pre-registered follow-up experiment, we aim to confirm and extend these findings. Data collection was completed early June 2021 and data will be analyzed in June/July 2021.

400 participants were recruited through the Prolific Academic crowdsourcing platform with vaccine attitudes ranging from extremely positively valenced (i.e., “vaccine-positive”) to relatively neutral (i.e., “vaccine-hesitant”). They all were presented with a text that was negatively valenced toward early-childhood vaccinations.

Texts either had a narrative format focused on arguments and personal experiences, or an expository format focused on arguments and impersonal facts. After reading one of these texts, participants answered questions about their attitude toward vaccination, attitude certainty, cognitive resistance, control variables and demographics, respectively.

On these data, we will perform a mediated moderation analysis (Hayes model 7) with text format (narrative vs. Expository) as independent variable, vaccination attitudes and attitude certainty as dependent variables, vaccine hesitancy as a moderator, and cognitive resistance as a mediator.

**Discussion** Based on the findings from our exploratory experiment, we drew the cautious intermediate conclusion that people seem to start doubting their pro-vaccination standpoints after reading anti-vaccination narratives. In our presentation, we will outline the findings of our confirmatory experiment and discuss whether they (dis-)confirm this notion. Specifically, we aim to answer whether a) anti-vaccination narratives are indeed more persuasive than anti-vaccination expositions, b) persuasive effects of anti-vaccination narratives are mediated by decreased cognitive resistance, and c) persuasive effects are stronger as people are increasingly vaccine-hesitant (versus vaccine-positive). Theoretical, practical, and societal implications of our findings will be discussed.
Cancer and its treatments can cause significant changes in intimacy and sexuality that very likely affect the quality of life of patients and their partners (Tierney, 2008). Therefore, it is important to incorporate sexual health communication in oncological practice. Before treatment, discussing possible sexual side effects with a healthcare provider can support patients in making choices regarding their treatment. During treatment and follow-up consultations, talking about sexual health can result in timely identifying sexual problems (Flynn et al., 2012). In addition to consultations with their healthcare providers, patients use online health forums to ask questions, search for information, and seek peer support (Osheroff, in Kiyimba, Lester & O’Reilly, 2018), also in relation to sexual health (Ihrig, Karschuck, Haun, Thomas & Huber, 2020). Earlier research has shown that patients use these forums because of their perception that healthcare professionals are too busy to engage in detailed discussions (Rupert et al., 2014). Moreover, many cancer patients experience unmet needs regarding sexual health communication, as they search for answers to questions such as “are my sexual problems normal?” (Albers et al., 2020; Hordern & Street, 2007). Patients increasingly find answers to these questions by participating in online forums (Kaal et al., 2018).

Besides discussing sexual health with their peers, cancer patients can also ask questions directly to healthcare professionals online. Because of the rather anonymous environment, it may be that patients talk more freely about sexual health, albeit with their peers or with a healthcare professional. An analysis of these interactions may, therefore, offer important insights into the interactional practices occurring in talk about sexual health. Furthermore, since patients are the ones to initiate questions and discussions, it provides us with an understanding of what patients themselves make relevant in these conversations. In this particular study, we use discursive psychology (DP) to gain a better understanding of online conversations about sexual health. DP focuses on naturally-occurring interactions and allows us to explore the actions participants perform (un)consciously. For example, patients might justify introducing the topic of sexuality, which simultaneously marks this topic as delicate. By closely studying the way patients perform such social actions in interaction, we can uncover norms and effects of which participants are usually unaware; specific interactional sensitivities (Potter, 1996).

In this study, the data consists of conversations about sexual health on three Dutch forums used by cancer patients. We searched the forums for relevant messages by using search words such as sex(uality), intercourse, and intimacy. A first glimpse of the data highlights patients making relevant the role of their partner by emphasizing partners having a lot of patience. We, therefore, want to further explore how the identity of a supportive partner is evoked in the discourse. In our blitz presentation, we will discuss preliminary findings. Additionally, given the existing difficulties in discussing sexual health in oncological practice (O’Connor et al., 2019), we are keen to brainstorm about how our findings might...
be used to offer suggestions on how to improve sexual health discussions between patients and professionals in oncology.

The SENTENCES project: interrelationships between news media content, social media discussions, and trust and participation in government cancer screening

Anne Fleur van Luenen, Gert-Jan de Bruijn, Enny Das, Hanneke Hendriks, Suzan Verberne and Johannes Brug

Social media discussions have been shown to influence public perceptions on a myriad of topics, including support for certain health policies and screening programs, and mistrust of governmental and medical institutions (Johnson et al, 2020). In the context of cancer and cancer screening, people often visit social media platforms, because they feel uncertain and overloaded by the vast amount of available information (Niederdeppe et al, 2014). At present, very little is known about the causes of these social media discussions. Nor do we have much information about the effect of these discussions on the support for cancer screening programs, the public’s trust in national health institutes, and public perceptions of balanced information provision by those institutes.

In SENTENCES, we investigate longitudinally how news media content, social media discussions, and public perceptions towards screening participation are related. We will investigate how informed decision-making regarding screening and trust in the national screening programme is affected by – and affects – news media exposure and social media discussions. In addition, we will develop, validate, and implement technological tools for automatic coding of news and social media content for implementation with these societal partners. The project will further deliver a whitepaper on effective social media strategies to promote informed decision-making for screening and trust in public health organisations in the current dynamic media environment.

In this ‘Work-in-Progress’ presentation, we will sketch the outlines of the project and subsequently discuss our proposed methods to answer these questions. Specifically, we will search for input for our second study: a content analysis for social media debates on cancer screening. Our first question is where to find relevant debates. We are aware that there is an active debate on Twitter on the pros and cons of the Dutch cancer screening programme. It is, however, uncertain whether this is what people who are looking for information on cancer screening are exposed to and participate in. The second question that is raised in this context, is what to analyse. National public health institutes like the Dutch RIVM advocate for informed decision-making regarding participation in cancer screening. Therefore, sentiment towards the cancer screening programme, this topics like misinformation detection, as well as stance detection and certainty prediction may be likely candidates for analysis. We very much welcome a discussion on debate selection and the most useful topics for analyses.
In the current ‘infodemic’, surrounding the spread of false and unfounded claims as well as conspiracy theories related to COVID-19, so-called social media influencers, prominent figures on platforms such as TikTok or Instagram, are a potential source of misinformation (Abidin et al., 2020). As seemingly down-to-earth and trustworthy individuals (Allgaier, 2020), who function as digital opinion leaders (Casaló et al., 2018), influencers can have an impact on followers’ perception of the virus and the policies in place to minimize its threat. Drawing from the differential susceptibility to media effects model (Valkenburg & Peter, 2013), we investigate potential susceptibility factors, e.g., perceived influencer credibility (Schouten et al., 2020), which make individuals more vulnerable to influencers’ claims. Second, we hypothesize that different forms of literacy act as protective factors, diminishing the impact of misinformation (Cooke, 2021).

In this pre-registered experiment, young women participated at five different time points (T1-T5). At T1 (n = 149), we assessed the hypothesized protective factors. At T2, T3 and T4, participants were exposed to lifestyle-related posts by a fictitious influencer over the course of one week for the purpose of familiarization. At T5, we assigned the remaining subjects (n = 119) randomly to a treatment group (n = 66), which was twice exposed to misinformation related to COVID-19, and a control group (n = 52), which was presented neutral posts. Results showed no overall significant differences in attitudes toward COVID, COVID-related measures and official information about the virus between groups. Yet, moderation analyses using the Johnson-Neyman technique revealed that at medium to high levels of trust in the influencer’s COVID-related advice (b = 0.94, SE = 0.28, p = .001, significant above 2.30), and high levels of influencer credibility (b = 0.52, SE = 0.13, p < .001, significant above 4.25), subjects exposed to misinformation reported significantly greater mistrust in official information about the virus than the control group. In contrast, at low levels of trust in the influencer’s COVID-related advice (significant below 1.24) and medium to low levels of influencer credibility (significant below 2.69), the treatment group was less suspicious of official information than the control group, which points to a polarizing effect of influencers’ misinformation. Furthermore, at low levels of trust in the influencer’s COVID-related advice (b = 0.69, SE = 0.29, p = .019, significant below 1.35), the treatment group was even more convinced that the virus was a threat, thus showed resistance to the misinformation. Although information-related literacy, that is, subjective and objective COVID-related knowledge, did not emerge as a moderating factor, information-related literacy was overall associated with lower beliefs in misinformation across both groups.

Overall, our findings imply that individuals show receptivity to influencers as an alternative source of information, when they perceive them as 1) generally credible or 2) credible in relation to a specific topic. This confidence in influencers may further reinforce mistrust in official information. Meanwhile,
prior knowledge about an issue seems to reduce the overall chance of believing false or unfounded claims.

Patterns of Online Information Seeking and Avoidance about the COVID-19 pandemic

Elena Link, Magdalena Rosset and Anna Freytag

Introduction  Health crises like the COVID-19 pandemic are periods of uncertainty that individuals have to cope with (Tandoc & Lee, 2020). The Uncertainty Management Theory (Brashers, 2001) postulates that both information seeking and avoidance facilitate individuals’ coping by reducing negative emotions or maintaining positive ones. In this context, the Internet is valued for providing immediate and in-depth information (Liu, 2020). At the same time, misinformation through online media represents a particular burden for individuals’ coping (Hernández-García & Giménez-Júlvez, 2020).

Considering this ambiguity as well as that information seeking is necessary to inform citizens about how to act appropriately (Paakkari & Okan, 2020; Liu, 2020), while information avoidance might deprive individuals of valuable knowledge about self-protective behaviors (Golman et al., 2017), the purpose of this study is to understand how individuals seek and avoid online information to cope with uncertainties related to the COVID-19 pandemic. We aim to identify patterns of online information seeking (RQ1) and avoidance (RQ2) about the COVID-19 pandemic.

Methods  We conducted semi-structured interviews with 21 participants representing diverse socio-demographic backgrounds in Germany in April 2020. This approach allowed us to identify patterns of information seeking and avoidance in the greatest possible depth. The interview guide reconstructed the respondents’ uncertainty perceptions and their online information behaviors. All data were analyzed using qualitative content analysis, combining deductive and inductive strategies of coding.

Findings  Considering uncertainty perceptions as motives for information seeking or avoidance, types of associated seeking or avoidance behaviors, used or avoided sources, and sought or avoided issues, four patterns of online information seeking and three patterns of online information avoidance about the COVID-19 pandemic were elicited.

The identified patterns of information seeking (RQ1) comprised an active, targeted search motivated by exposure to misinformation (“in-depth online information seeking and fact-checking”) and more habitual acquisition of information (“easy access to the latest information”, “identification with influencers”, “family and friends as gatekeepers”). The latter patterns described information filtered and provided by social media or preselected by family and friends. This information was perceived as more tailored to the individuals’ needs, provided the opportunity to interact, and offered emotional and functional support.

The patterns of online information avoidance (RQ2) reflect on the one hand the avoidance of sources and contents due to mistrust and skepticism (“distancing from sensational and false information”) and on the other hand the management of a high amount of information associated with emotional strains.
(‘digital detox’ as a protective measure against information overload and emotional stress”) as well as
the omnipresence of the topic over a long time resulting in “disinterest and information fatigue”. Hence,
the patterns are distinguished by different motivations to avoid information.

**Conclusion** The findings highlight emotional burdens, information overload, and information
fatigue as barriers to information distribution, whereas the participants are aware of misinformation
and use online searches to verify information. Further, the findings stress the importance of social
context factors, like information automatically filtered and provided by social media or preselected by
family and friends, for uncertainty management and for designing information campaigns.

“They are wallowing in Luxury, but complain about the Struggles of Lockdown” A Field
Experiment into Audience’s emotional and behavioral Responses to online Celebrity COVID-19
Messages

**Gaëlle Ouvrein, Heidi Vandebosch and Charlotte De Backer**

**Introduction** Celebrities are well-known for their far-reaching power and role-modelling function
among an audience dealing with problems and complex situations (Giles, 2000). Therefore, celebrities
have regularly been used in previous pandemics to spread advice and reduce stress through social media
campaigns (Managello et al., 2020). Also, during the COVID-19 pandemic celebrities have tried to
support the audience (Larabee, 2020). The main difference today is that celebrity advice is not limited
to controlled messages by public services, governments and health organizations (Manganello et al.,
2020). Celebrities spontaneously posted COVID-19 related messages on their personal social media
accounts. Although many believed in the supportive contribution of these posts, other sources
expressed concerns on how these messages seem to stimulate frustration and anger among the
audience, due to the fact that these posts contain too many references to the luxurious lives of
celebrities (Larabee, 2020).

This study aims to examine how the audience responds both emotionally and behaviorally towards
spontaneous online celebrity COVID-19 messages. Moreover, to better understand the underlying
processes, we will test an experimental model that allows to look into the role of contextual (cues of
luxury and glamor) and individual (upward social comparison orientation and attitudes toward the
celebrity) factors in explaining the audience’s emotional and behavioral responses.

**Methods** We made use of an online within-subject experiment with three real celebrity COVID-
19 messages, which differed in the represented cues of luxury. We also measured individual factors
(upward social comparison orientation and attitudes towards the celebrity) and participant’s emotional
(i.e., positive and negative feelings) and behavioral (i.e., commenting) responses. The sample consisted
of 385 (N=385) people with an average age of 42.24 (SD= 14.46).

**Results** The results indicated that audience’s emotional and behavioral reactions were more
negative towards posts that contained more cues of luxury and glamor. Social comparison orientation
seems to further moderate these effects, indicating that upward social comparison based on these cues
can motivate and support the audience to a certain level, but switches to negative effects once the focus
on luxury becomes too strong. The results on attitudes towards the celebrity in the message confirmed the powerful role of this variable, establishing the link between more positive attitudes and more positive emotional responses (amusement and inspiration). These emotional responses did not function as mediators for the behavioral responses, as the latter seem to be steered by impulsivity.

**Conclusion** Whereas previous literature indicated that many people seem to love the underlying references to glamor and glitter (Marwick, 2015), we add that this should be nuanced and that the context (i.e., chronic stress) should be taken into account. This study has implications for celebrities who share spontaneous pandemic-related messages, as well as companies and authorities working with celebrity-endorsers in such context. Based on the results, it can be advised that to be inspirational and generate uplifting emotional responses, celebrity messages should contain some references to luxury and glamor; enough to inspire and motivate, but not too much in order to avoid anger and hostility.

**PARALLEL SESSION 2 | THURSDAY 4 NOVEMBER, 11.15 – 12.15 CET**

**Yellow Room (Room 2) | Media**

“Mapping” knowledge dissemination: Metaphors in scientific and journalistic communication about immunotherapy

*Nynke Bos, Anke Oerlemans, Gudrun Reijnierse, Lisa Vandeberg and Marlies Hulscher*

Immunotherapy constitutes a paradigm shift in medicine: from a “one-size-fits-all” approach to personalized medicine. By targeting a patient’s immune system in a personalized manner, this relatively novel therapy has already proven effective in treating various forms of cancer, allergies, and infectious diseases like COVID-19. As immunotherapy holds tremendous promise, it receives increasing attention both in scientific publications as well as in journalistic outlets. Responsible communication about research results and future expectations is essential for scientists to optimize knowledge exchange and for the general public to be better informed about this innovative approach.

Scientific and journalistic discourse about recent developments in science/medicine, such as personalized immunotherapy, often utilizes literary devices such as metaphors. A metaphor is a figure of speech in which a topic, in this case immunotherapy, is described in terms of something else that is more concrete or more familiar, such as a machine or warfare. Scientists use metaphors either as part of their jargon or to discuss novel developments in science. Science journalists use metaphors to simplify complicated and often abstract scientific findings and explain these to the general public. Research on immunotherapy metaphors in scientific and journalistic discourse is scarce. Given that metaphor use reflects the way in which immunotherapy is discussed by experts and communicated to the public, and thereby has the potential to shape these audiences’ thinking, the aim of this study is to map current communication about immunotherapy. To this end, we ask:

**RQ1a:** Which linguistic metaphors are used in the descriptions of immunotherapy?
RQ1b: What are the source domains of these metaphors?

RQ1c: Which functions do these metaphors have?

It is known that journalists sometimes adopt metaphors from academic publications in news articles, but they may also extend existing metaphors or even create new ones. Therefore, we ask:

RQ2: How does metaphor use in scientific texts compare to metaphor use in journalistic texts?

A sample of 1,425 scientific review articles about immunotherapy published in core clinical journals was obtained through pubmed. The journalistic sample was retrieved through nexisuni and contains approximately 3,000 articles from British news outlets. The units of analysis consist of text chunks containing the term immunotherapy.

Three consecutive coding stages are performed to identify: 1) linguistic metaphors related to immunotherapy; 2) metaphorical source domains for each linguistic metaphor; and 3) the functions of the metaphors (RQ1). Next, results from these analyses are used to compare scientific and journalistic texts (RQ2). Data coding and analysis are expected to be completed in August 2021.

Preliminary results show that scientific and journalistic outlets use metaphors from well-known source domains such as WAR and MACHINERY, but also lesser-known domains such as BOTANICS (RQ1). Scientific articles seem to use single metaphors that describe coarser-grained situations and goals (“enhance defense mechanisms”; “fighting against infections”), whereas journalistic articles use multiple metaphors that describe finer-grained details in scenarios about immunotherapy (cancer as “enemy”; immune cells as “soldiers” and “fighters”). This suggests journalistic texts not only adopt, but also extend metaphors from scientific texts (RQ2).

Patterns of Online Information Seeking and Avoidance about the COVID-19 pandemic

Delight Agboada

Introduction Health crises like the COVID-19 pandemic are periods of uncertainty that individuals have to cope with (Tandoc & Lee, 2020). The Uncertainty Management Theory (Brashers, 2001) postulates that both information seeking and avoidance facilitate individuals’ coping by reducing negative emotions or maintaining positive ones. In this context, the Internet is valued for providing immediate and in-depth information (Liu, 2020). At the same time, misinformation through online media represents a particular burden for individuals’ coping (Hernández-García & Giménez-Júlvez, 2020).

Considering this ambiguity as well as that information seeking is necessary to inform citizens about how to act appropriately (Paakkari & Okan, 2020; Liu, 2020), while information avoidance might deprive individuals of valuable knowledge about self-protective behaviors (Golman et al., 2017), the purpose of this study is to understand how individuals seek and avoid online information to cope with uncertainties related to the COVID-19 pandemic. We aim to identify patterns of online information seeking (RQ1) and avoidance (RQ2) about the COVID-19 pandemic.
Methods We conducted semi-structured interviews with 21 participants representing diverse socio-demographic backgrounds in Germany in April 2020. This approach allowed us to identify patterns of information seeking and avoidance in the greatest possible depth. The interview guide reconstructed the respondents’ uncertainty perceptions and their online information behaviors. All data were analyzed using qualitative content analysis, combining deductive and inductive strategies of coding.

Findings Considering uncertainty perceptions as motives for information seeking or avoidance, types of associated seeking or avoidance behaviors, used or avoided sources, and sought or avoided issues, four patterns of online information seeking and three patterns of online information avoidance about the COVID-19 pandemic were elicited.

The identified patterns of information seeking (RQ1) comprised an active, targeted search motivated by exposure to misinformation (“in-depth online information seeking and fact-checking”) and more habitual acquisition of information (“easy access to the latest information”, “identification with influencers”, “family and friends as gatekeepers”). The latter patterns described information filtered and provided by social media or preselected by family and friends. This information was perceived as more tailored to the individuals’ needs, provided the opportunity to interact, and offered emotional and functional support.

The patterns of online information avoidance (RQ2) reflect on the one hand the avoidance of sources and contents due to mistrust and skepticism (“distancing from sensational and false information”) and on the other hand the management of a high amount of information associated with emotional strains (“digital detox as a protective measure against information overload and emotional stress”) as well as the omnipresence of the topic over a long time resulting in “disinterest and information fatigue”. Hence, the patterns are distinguished by different motivations to avoid information.

Conclusion The findings highlight emotional burdens, information overload, and information fatigue as barriers to information distribution, whereas the participants are aware of misinformation and use online searches to verify information. Further, the findings stress the importance of social context factors, like information automatically filtered and provided by social media or preselected by family and friends, for uncertainty management and for designing information campaigns.

Communicating personalized side effect risks of treatment options: The role of comparative risk information

Ruben Vromans, Steffen Pauws, Lonneke van de Poll-Franse and Emiel Krahmer

Introduction When making a decision about treatment, patients often report that they want to see their own personalized risk score for a particular treatment side effect in comparison with scores of other patients, allowing them to determine whether they are above or below average. In this pre-registered experimental study (https://osf.io/q2dcz/?View_only=460eb2ca758941d7b657f59536f754e1), we examined the effects of providing such comparative information on people’s cognitive, emotional, and behavioral responses. We also explored the extent to which individual differences,
including sociodemographic characteristics, numeracy, health literacy, and graph literacy might influence the effects of these different comparative risk strategies.

**Methods**

1807 participants (54% women; mean age = 53.9 (SD = 18.3); range = 16-95 years) from a representative sample of the Dutch population were presented with three health scenarios and personalized risk estimates of treatment side effects (medication for increased cholesterol level, surgery for skin cancer, and chemotherapy for colon cancer). The risks were personalized based on participants’ reported gender, age, and on specific information about the disease (diagnosis, stage of disease, health condition) as stated in the health scenarios. Participants either received only their own personalized risk statistic (e.g., 38 out of 100 men/women like you), or with comparative information that indicated that their risk was below average (average risk is 58 out of 100 people) or above average (average risk is 18 out of 100 people). Furthermore, half of the participants received risk information only numerically (natural frequencies), and the other half numerically and graphically (icon arrays). Main outcome variables were participants’ perceived and estimated risk, affective evaluation and treatment intention. Covariates were sociodemographics (age, gender, education), subjective numeracy, health literacy, and graph literacy skills.

**Findings**

Results of the two-way MANCOVA showed that, in both message formats, the presence of comparative risk information did not influence participants’ levels of perceived risk, affective evaluations, nor their likelihood of choosing the treatment. However, and surprisingly, in two out of three scenarios, participants who were told that their personalized risks were above average, estimated their own risk as lower and more accurate than participants in the other two comparative information conditions (ps < .012 and .001, respectively). Regardless of comparative risk information and message format, less numerate participants were more likely to estimate their own risk as “fifty-fifty” compared to highly numerate participants.

**Conclusions**

Providing comparative risk information did not change risk perception, affective evaluations, or treatment intention. However, such contextual information may be used for estimating one’s own risk of experiencing a treatment side effect. Tool developers (e.g., decision aids) and/or risk communicators may consider using comparative risk information about average statistics when communicating personalized risks of treatment outcomes to patients.

Communicating personalized outcomes after an emergency: The effects of comparative risk information and message format on peoples’ risk perceptions, affective evaluations, and risk understanding

*Saar Hommes, Ruben Vromans, Marjolijn Antheunis, Nadine Bol, Mariska de Jongh and Emiel Krahmer*

**Introduction**

Injury-related deaths accounted for about 12% (8,671) of all deaths in the Netherlands in 2019. Many patients that have survived the injury want to know what the impact on their lives will be. One way of communicating such information is by giving patients personalized predictions about life after emergencies. However, it remains unclear how personalized predictions can be presented best and what the effects are if you communicate personalized predictions that are better or worse than the
average prediction. In this pre-registered study, we tested the effects of comparative risk information and message format on peoples’ risk perception, affective evaluations, and risk understanding. We also explored which patients benefit from receiving personal predictions and which patients do not, by exploring individual differences (e.g., in terms of numeracy, health literacy, and graph literacy skills).

Methods Respondents from a representative Dutch sample (N=983, 54% women; mean age=53.5 (SD=18.5); range=16-92 years) read a scenario of an injured patient receiving personalized information about their daily life (e.g., mobility and self-care) over time (e.g., status after 1 week/1 month/6 months). Each description consisted of a personalized outcome (e.g., “After 1 week, 33 out of 100 people like you will experience no/moderate/severe problems with mobility”), which was either better or worse than the average prediction. These outcomes were presented in a text-only or a text+visual format. Outcome measures were risk perception (e.g., “How likely do you think you would be to experience severe problems with mobility?”) And affective evaluation (e.g., “How frightening did you think the information about your personalized prediction was?”) On 5-point scales. Understanding was measured with verbatim (e.g., “Based on your personalized prediction, how many people expected to have severe problems with mobility?”) And gist knowledge items (e.g., “How does your personalized prediction for mobility compare to the average prediction?”). Control variables included objective and subjective numeracy, health literacy, and graph literacy.

Findings Whether a personalized outcome was above or below average did not impact peoples’ risk perception and affective evaluation. However, compared to text-only format, personalized outcomes presented via text+visuals led to higher risk perceptions and affective evaluations, but these were small effects and was only for information on mobility after 1 week. With regard to understanding, both verbatim (30% correct) and gist (21%) knowledge were low, and there were no differences between the two formats. Preliminary exploratory analyses revealed that numeracy literacy impacts risk understanding, such that less numerate people had more difficulties understanding personalized predictions compared to highly numerate people (regardless of format).

Conclusion and discussion The way an personalized probability (with texts and/or visuals) or the kind of comparative information (being better or worse than average) that is being provided does not seem to influence how people perceive or understand their personalized predictions, nor does it influence how worried they feel. Understanding personalized statistics seems to be a challenging task for many in general. Even though studies have found that patients want to be informed about their personal risks, how to do this precisely warrants further research.
Decisional conflict after deciding on potential participation in phase I clinical cancer trials: the crucial role of satisfaction with the consultation

Liza van Lent, Julia van Weert, Maja de Jonge, Mirte van der Ham, Marjolein van Mil, Eelke Gort, Jeroen Hasselaar, Esther Oomen-de Hoop, Carin van der Rijt and Martijn Lolkema

Introduction Many patients with cancer ultimately reach a moment that no standard treatment options are available anymore. If they are in a sufficiently good condition, they can opt to participate in phase I clinical trials (i.e. Experimental treatments for which no evidence is available yet). Alternatively, they can choose for withholding systemic therapy, thereby supported by palliative care. Since it is unclear whether trial participation results in survival benefit, deciding between the two options can be very complicated. Previous research indicated that patients who faced the decision whether to participate in a phase I clinical trial might experience decisional conflict, which reflects the quality of end-of-life decision-making. To be able to prevent this as good as possible in the future, it is necessary to gain insight into which factors contribute to the level of decisional conflict.

Methods A prospective multicentre survey study was performed among patients who were referred for potential participation in a phase I clinical cancer trial. In total, 302 patients from three major early phase clinical research units were approached to participate in this study between February 18, 2019 and December 18, 2020, of whom 116 were eventually included in the final analyses. Patients answered two questionnaires: one before the first consultation and the other three weeks afterwards. The dependent variable was decisional conflict (measured 3 weeks after the consultation), independent variables were health-related quality of life, health literacy and sense of hope (measured before consultation), satisfaction with the consultation and timing of the decision (measured 3 weeks after the consultation), and the decision itself (from patient records).

Findings Multiple regression analysis showed that global health status (as subscale of health-related quality of life), satisfaction with the consultation, and timing of the decision remained significant predictors of decisional conflict. This means that less decisional conflict was reported by patients who had better global health status, were more satisfied with the consultation, and made the decision sooner. 37.0% of the variance in decisional conflict was explained by these variables.

Conclusion The finding that patients who were less satisfied with their consultation experienced more decisional conflict, suits the idea that those patients might have unfulfilled needs after the consultation. Previous studies have shown that the trials’ complexity can lead to a focus on medical-technical information during the consultation, with a limited discussion of values and preferences. Extending the discussion on patient values could not only be beneficial for patients’ satisfaction, but also for addressing the specific needs of patients with e.g. Lower global health status. We also recommend to further improve communication and shared decision making by training healthcare providers in taking patients’ personal decision-making preferences into account. This could also guide
healthcare professionals in providing the right support to patients who require more time to make a decision.

**Radon health communication: A systematic review of mass media interventions to increase radon testing and remediation**

*Sofie Apers, Heidi Vandebosch and Tanja Perko*

Indoor radon is the leading cause of lung cancer among non-smokers. This natural radioactive gas enters homes through cracks in the foundations, and due to its odourless, tasteless and colourless nature, it often goes unnoticed. In Europe, indoor radon accounts for 9% of all lung cancer deaths. While ways to solve radon issues in homes are often regarded as straightforward, testing and remediation rates remain insufficient. A number of studies have investigated why people do not test or remediate their homes. Among others, the most important reasons identified were the lack of awareness and knowledge, the low risk perception and perceived susceptibility to radon risks, and the perceived barriers such as high costs to remediate. The literature shows that in general mass media interventions have the potential to promote health behaviours, although when looking at indoor radon, these campaigns were often not or only partially successful in increasing testing and remediation rates.

In this presentation the results of a systematic review will be presented that investigated the current level of evidence regarding mass media communication interventions to address the health risks of indoor radon to homeowners. More specifically the systematic review looked at the different objectives of the interventions, the different components, message designs and how the interventions were evaluated. Predefined search terms and inclusion criteria were applied in multiple databases, resulting in 40 peer-reviewed publications that report 27 mass media communication interventions. Due to the heterogeneous character of the used evaluation methods, the interventions were divided into four groups (i.e. Controlled interventions, field studies, implementation studies with process- and effect measures, and implementation studies with only process measures). Systematic coding allowed for comparison of the interventions.

The results show that, to date, the vast majority of the interventions took place in the United States, and only 4 interventions were carried out in Europe, all of them being implementation studies. Moreover, the majority of interventions aimed at increasing intention to test and testing for indoor radon, while only few interventions focused on remediation behaviour. Although the interventions often succeeded in raising awareness about indoor radon, they were often not effective in increasing radon testing or remediating. These findings thus show a discrepancy between awareness and behaviour. Furthermore, the communication interventions were often similar in message and approach, using brochures as the main communication channel and an informative and facts-based tone of voice. Only a few interventions used innovative communication approaches. Finally, the methods used to evaluate the interventions varied greatly going from randomized controlled trials to only process measures.
In conclusion, these results suggest that the potential of mass media communication interventions has not been investigated completely. Further research is needed to test innovative and theory-based communication strategies to increase indoor radon testing and remediation rates in a European context, where special attention should be given to using appropriate methods to evaluate the effectiveness of these communication strategies.

Interactive decision aids for cancer screening and treatment options: A systematic review

Mariëlle Wijtenburg, Ruud Koolen and Ruben Vromans

Introduction  Decision aids (das) provide patients with evidence-based information about available options and associated risks and benefits of cancer screening or treatments. Yet, das are typically generic, static, and non-personalised. However, due to the current advances in technology, there seems to be a greater focus on interactive das. Such das could provide patients with a variety of choices in the sequence of the content and in selecting what additional content is to be viewed, yield real-time feedback or advice based on their input, and personalise the content based on patient and/or tumour characteristics. However, it is unclear whether these interactive features may have a greater impact on the quality of decision-making. Therefore, this review will focus on the impact of interactive das in supporting decision-making compared to usual care or static das.

Method  Using the PICO search model, a strategy was developed for a systematic search of published literature between 2010 and 2021 in pubmed (MEDLINE) regarding interactive das. The search strategy contained keywords and Medical Subject Headings (MESH) regarding (surrogate) patients with cancer or individuals who are at risk for cancer and were exposed to either interactive das, usual care, or static das. The interactive das of eligible studies were reviewed on (1) their impact in supporting cognitive, affective, or behavioural aspects of decision-making compared to usual care or static das, and (2) the incorporated interactive features.

Findings  The findings of the sixteen included studies were twofold. Firstly, compared to static das, interactive das had a positive impact on the cognitive outcomes knowledge and understanding and on the affective outcomes satisfaction with care, decisional regret, and decision readiness. However, no effects were found on cognitive outcome consideration of choices, affective outcomes including decisional conflict, anxiety, attitude, and on the behavioural outcome involvement in decision-making. Secondly, when it comes to interactive features, tailoring to characteristics (e.g., tumour grade, age, and gender) and the option to view additional information (e.g., glossary, patient narratives) had a positive impact on supporting decision-making for cognitive outcomes. In contrast, only the availability of additional information and value or preference clarification exercises were effective in supporting decision-making for affective outcomes. Notably, when the content in the DA was only narrated or video-based, this seemed to negate the positive impact of potential effective interactive features.

Conclusion  The current review suggests that interactive das had a positive impact on several outcome variables. Variations in cultural values may have influenced to what extent interactive features, such as patient narratives, were effective in supporting the decision-making process. It is suggested for
Stakeholder Signals: A systematic review of indoor radon communication interventions’ stakeholder characteristics and their relationship to indoor radon testing and/or remediation behaviour

Kristin de Grouchy, Tanja Perko and David Hevey

**Background**
Indoor radon is the second highest cause of lung cancer after smoking (Darby et al., 2005). Despite communication-based interventions, indoor radon testing and remediation rates remain low. Research and interventions to increase testing and remediation have primarily been focused on the household level.

We performed a systematic literature review on indoor radon testing and/or remediation communication interventions that engaged stakeholders from the community/regional (meso) or national/central/international (macro) level. The results evaluate the stakeholder characteristics in relation to testing or remediation outcomes.

**Methods**
Sixteen (16) databases, including Medline, APA psychinfo, Cochrane, CENTRAL, and CINAHL, were searched. Inclusion criteria included reporting of indoor radon and/or remediation as the outcome of intervention, clear reporting of how the intervention was delivered and/or communicated, and inclusion of at least one meso or macro level stakeholder in the intervention.

Risk of bias was assessed based on study design, recruitment strategy, data collection method and study retention rate. Data extraction was performed using a specifically developed codebook to code each stakeholder as either micro (e.g., household/individual) level, meso (e.g., community, regional) level, or macro (e.g., federal, international) level. The coding distinguished household level, regional or national/international level stakeholders. Stakeholders were further coded according to how they were engaged with the development or delivery of the intervention, and their area (e.g., nuclear safety, health, local government).

**Results**
The search identified 1903 records from which 102 were selected for full text review; 34 full text records were analysed.

The study sample sizes ranged from 1522 to 36. The studies reported indoor radon testing (n= 25; 73.5%), indoor radon remediation (n= 9; 26.5%), or both outcomes (n= 8; 23.5%). Most studies (n=21; 62.8%) involved only meso level stakeholders in the delivery of the intervention, while the remainder were either macro only (n=7; 20.6%) or both macro and meso level stakeholders (n=6; 17.6%). In three studies, meso level mass media was a key stakeholder in communicating the intervention; these studies had indoor radon testing rates of <20%. In several studies, a healthcare provider participated in future research to investigate the impact of interactive features, such as content control, tailoring, patient narratives, or value clarification exercises in a controlled, experimental environment. Additionally, it seems equally valuable to explore what specific features may be most beneficial for certain populations.
intervention delivery, particularly with communicating the intervention: the majority of these studies reported indoor radon testing rates >50%.

**Discussion** For many studies, it was difficult to estimate any relationship between the stakeholders and indoor radon mitigation behaviour due to the heterogeneity in study methodology. Interventions led by macro or meso-led governments and delivered to meso level participants (e.g., schools) tended to have more positive outcomes than macro-led governmental communication interventions to micro level recipients. The findings indicate possible positive relationship between certain stakeholders’ engagement and participant behaviour, though more rigorous studies are needed.

Funding for the research was provided by the Euratom research and training programme 2019-2020 under grant agreement No 900009.

---

**PARALLEL SESSION 3 | THURSDAY 4 NOVEMBER, 13.15 – 14.15 CET**

**Red Room (Room 1) | COVID Communication: Media**

**Problematising Expectations of Media Coverage During a Once-in-A-Century Pandemic: Lessons Learned from Greece Over Two Waves of COVID-19**

*Matthew Matsaganis, Stylianos Papathanassopoulos, Achilleas Karadimitriou, Christos Kostopoulos, Ioanna Archontaki, Dimitrios Souliotis and Athina Korovesi*

**Introduction** Studies of media coverage of past health crises, including for example the 2014-2016 Ebola epidemic in West Africa or the 2015 MERS outbreak in South Korea, instruct us to expect certain patterns. In the past, early media coverage of epidemics has “sounded an alarm” and called for action. That phase was followed by one in which media stories conveyed mixed messages, and in a final third stage, coverage pointed to an end of the crisis while affirming the capacity of science and healthcare systems to effectively protect populations against a serious health threat. Other research on media’s health-related roles, not necessarily at times of crisis, suggests that they perform surveillance, interpretation, and socialization functions. They report events and information to the public thereby setting the public agenda (surveillance); they provide context to help audiences make sense of (thereby framing) events and issues (interpretation); and finally, in performing a socialization role, media promote social connectedness and civic participation, but also specific health-related norms (socialization). Scholars have also added a fourth key role, that of “attention merchant,” which media perform when they strive to attract attention and deliver audiences to advertisers or other types of sponsors (e.g., politicians).

**Methods** In this paper, we report on findings from a quantitative and qualitative content analysis of 1,204 COVID-19-related stories produced by eight (8) Greek newspapers and popular Web-based news media during a so-called “first wave” of the pandemic (March-June 2020) and a “second wave” (October-December 2020). These periods differed considerably with respect to the public health impact
of the pandemic and the effectiveness of the government’s response. The media included were selected based on audience size, historical impact on public and policy agendas, as well as political leaning. Due to the large volume of COVID-19-related news stories, we employed constructed week sampling. Additionally, we related findings from our content analysis to Greek national public opinion polls published during the two abovementioned periods, to examine the relationship between media and public agendas around the pandemic.

**Findings & conclusion**  Initial findings from our analyses, based on media systems dependency theory, as well as the agenda-setting and framing literature, suggest that: (a) overall, Greek newspaper and web-based news media coverage tracked the expected trajectory indicated by the literature, although analyzing media by political leaning and by type (online versus newspapers) suggested that: (b) coverage by media more likely to support the government (and political party in power) contained fewer stories that deviated from the authorities’ narrative, and (c) were more likely to provide evidence of media performing a socialization function related to public health behavior. Moreover, (d) online-only media were more likely to perform an attention merchant role. Finally, juxtaposing media content analysis findings and public opinion polls indicates a correlation between media and public agendas during both phases of the pandemic. These initial findings lend support to earlier research on media coverage of health crises by media but also introduce factors not typically considered as determinants of media coverage of prolonged, pandemic-related crises.

“Extremely Serious”: The Relationship Between the Content and Tone of News Reports and the Concerns About COVID-19 in the Spring of 2020 in the Netherlands  

Gudrun Reijnierse, Marion de Vries, Carlo Ruiz, Judith Rosmalen, Enny Das and Aranka Ballering

At the end of 2019, a novel coronavirus (SARS-cov-2) caused one of the largest pandemics of the past 100 years. The Netherlands also experienced the consequences of the COVID-19 crisis, with more than 1.6 million infections and more than 17,000 deaths confirmed. Moreover, during the crisis, government-imposed measures were introduced that severely curtailed people's social lives, including social-distancing measures, closure of schools, restaurants, and shops, and the introduction of a curfew.

In turbulent times such as the current COVID-19 pandemic, news media play a central role in informing the public about health risks and in offering possible perspectives for action (e.g., Yu et al., 2011). In addition to being able to determine which aspects of a health crisis they communicate about (agenda-setting), the media also determine how those aspects are communicated (framing). This, in turn, may affect public perceptions of, and attitudes towards, the crisis. For example, research has shown that media coverage of COVID-19 may have led to more awareness of the virus outbreak and to increased willingness to take preventive measures (Zhou et al., 2020). Furthermore, research on the H1N1 pandemic has shown that the way in which news stories were formulated aroused fear and could lead people to perceive the situation as more serious and feel more vulnerable (Chang, 2011). Moreover, it was found that risk perceptions regarding the H1N1 pandemic were more related to media attention than to the actual course of the pandemic (Reintjes et al., 2016).
While the course of a SARS-cov-2 infection is mild for most people, media coverage of the pandemic may raise public concern about it. The current study focuses on the way in which Dutch newspapers communicated about COVID-19 at the start of the pandemic and relates this to the concerns that the Dutch public had about COVID-19 during this period. To this end, we link associations between media content (type of event reported) and form (presence of linguistic intensifiers, such as ‘extremely’ and ‘enormous’; Van Mulken & Schellens, 2012) to data from over 70,000 participants in the Lifelines COVID-19 cohort, a questionnaire to measure physical and mental health effects of the pandemic (Mc Intyre, et al., 2021). Specifically, we analyzed a total of 7,791 finite sentences from 216 Dutch newspaper articles about COVID-19 published in six Dutch newspapers between 24 February and 16 May, 2020. Data from the lifelines cohort were used to measure the extent to which people were concerned about COVID-19.

Multilevel analysis, adjusted for gender, age and time, showed a significant positive association between the number of media posts with negative content and concerns about the pandemic. For messages with relatively many negative sentences, a significant negative association was found between the use of intensifiers and the extent to which the Dutch were concerned. Although no causal conclusions can be drawn from our findings, the findings suggest that public concerns are related to the content of media reports, but the use of intensifiers weakened this association for messages with a relatively high amount of negative content.

Who is Experiencing Correction Online? Social Media Use, Knowledge, and Information Overload During the COVID-19 Pandemic

Raffael Heiss, Kathrin Karsay and Andreas Nanz

Introduction Social media have been identified as an amplifier of the COVID-19 infodemic. However, given that previous research often subsumes various social media platforms and forms of usage into one measure, the role of the arguably diverse platforms (e.g., Facebook, Instagram, Twitter, and youtube) and user behaviors, remains unclear. Drawing on gratifications and media affordances approaches, this study explores how expressive vs. Passive social media use across these platforms relates to changes in information overload (IOL) and COVID-19 knowledge, two factors that may influence citizens’ susceptibility to misinformation. Furthermore, we investigate how these cognitive indicators relate to the experience of being corrected by others for sharing problematic information on COVID-19, a proxy of whether people share misinformation online.

Methods We collected quota-based two-wave survey data (N = 632) in Austria at the end of the first COVID-19 stay-home order (April 2020) and the opening up period after two months (June 2020). We employed autoregressive panel regression models, predicting changes in the dependent variables from wave 1 to wave 2. Beside using a global measure on citizens’ social media use for COVID-19 information, we also measured platform-specific social media use using eight questions, in which participants reported how frequently they a) encountered and b) posted or shared COVID-19 related information on each platform (Facebook, Twitter, Instagram, and youtube). We measured IOL and
experience of correction with three items, each derived from previous literature. We gauged knowledge about COVID-19 with six quiz questions.

Findings Results indicate that general social media use for COVID-19 information was associated with an increase in IOL and a decrease in COVID-19-related knowledge. Adding the user behavior and platform-specific predictors revealed that a higher share of youtube use (passive and expressive) was associated with a decrease in IOL and a higher share of passive Instagram use with an increase in IOL. A higher share of Instagram use (passive and expressive) was associated with a decrease in knowledge, and a higher share of passive Twitter use with an increase in knowledge. Furthermore, knowledge was associated with less experience of being corrected by others, while IOL was associated with an increase in such experience.

Conclusion The findings support the view that social media for COVID-19 information contributes to the infodemic. Notable differences emerged for the platforms. The entertainment-oriented platform Instagram may have distracted users from more factual Covid-19 information, leading to higher IOL and less knowledge. By contrast, a higher share of passive Twitter use, a platform used primarily for informational purposes in Austria, boosted citizens’ COVID-19 knowledge. Interestingly, youtube use was related to a decrease in IOL. Even though youtube has been attacked for providing a high amount of misinformation in public discussions, the long-format videos on various topics may also give orientation. Furthermore, the results also emphasize the independent roles of IOL and knowledge in limiting experiences of being corrected, and thus the overall amount of misinformation circulating online. Strategies to adjust platform-specific affordances to increase knowledge, reduce IOL, and, ultimately, limit the sharing of misinformation are needed.

Effects of Information Behavior on Stigmatization of COVID-19 Patients

Anna Freytag, Elena Link and Eva Baumann

Background Fear of the unknown, infection, and mortality associated with the disease lead to people affected by COVID-19 being prejudged, excluded, discriminated against, and thus stigmatized (Bruns et al., 2020; Chew et al., 2021). To develop appropriate anti-stigma interventions, it is important to understand which factors affect the stigmatization of COVID-19 patients (Logie, 2020). Previous stigma research suggests a central role of information and media. Distorted or false information can lead to the creation and maintenance of stereotypes. On the other hand, media can help revise misconceptions and thus reduce discrimination. In the present discourse on stigmatization in the context of COVID-19, it is assumed that the way people gather information can significantly influence stigmatizing attitudes (Cho et al., 2020; Dhanani & Franz, 2020; World Health Organization [WHO], 2020). To test this assumption empirically, we pose the following research question:

How does individual information behavior affect stigmatizing attitudes towards COVID-19 patients?
**Method**

We surveyed a sample of 492 people in Germany via an online access panel in October 2020 (t0) and January 2021 (t1). Respondents were between 18 and 85 years old (M = 51.96, SD = 15.05) and 60 % male.

The stigma of COVID-19 patients was queried multidimensionally following Mak et al. (2006) and Mantler et al. (2003). The dimensions captured attributions of control over possible infection as well as attributions of responsibility and blame. In addition, affective, cognitive, and behavioral stigma components were assessed. Internal consistency of all dimensions was satisfying (α ≥ .790). Information behavior was assessed via the frequency of information seeking about the novel coronavirus in general (Mead et al., 2012), frequency of use of 14 information sources, and interest in information on the coronavirus and the pandemic (Howell & Shepperd, 2016, α = .944).

**Results**

We calculated multiple regressions to investigate the influence of information behavior in October 2020 (t0) on stigmatizing attitudes in January 2021 (t1). We hereby controlled for stigmatization at t0, age, and gender of the respondents.

We found neither significant effects of information behavior on the attribution of controllability and responsibility nor on affective stigma responses. However, a higher frequency of information seeking for COVID-19 news in general (β=.113, p=.02) was positively associated with the attribution of blame to COVID-19 patients. In addition, the use of alternative news media (e.g., Russia Today) was related to a higher tendency to behavioral stigma (i.e., discrimination) (β=.108, p=.02), and turning to interpersonal information sources was related to higher levels of cognitive stigma (β=.138, p≤.001). In contrast, more frequent use of public service (β=.107, p=.02) and private (β=.095, p=.02) broadcasters were related to lower levels of cognitive stigma.

**Discussion**

Our results show that information behavior has only partly and slightly an effect on stigmatizing attitudes toward COVID-19 patients. Interestingly, the use of interpersonal sources and alternative news media positively affected single stigma dimensions, while the use of broadcasters had negative effects. At the conference, implications for stigma-related health information seeking and processing research and practice will be discussed.

---

**PARALLEL SESSION 3 | THURSDAY 4 NOVEMBER, 13.15 – 14.15 CET**

**Yellow Room (Room 2) | Food Communication**

**Real men eat meat, but do they really? Investigating within-sex differences in meat consumption**

*Amber Peeters, Charlotte De Backer, Gaëlle Ouvrein and Alexander Dhoest*

A high consumption of meat has been associated with elevated health risks. More specifically, it is red meat that has been found to be correlated with higher risks regarding cardiovascular diseases, obesity,
type 2 diabetes and even some forms of cancer. Despite these negative implications of consuming too much meat, meat consumption is rising. This rise in meat consumption is especially true for men, which can be partially explained by gender differences in meat selection and consumption. More specifically, men eat more meat than women, red meat in particular, and are more attached to meat than women are. Women are also more likely than men to follow a plant-based or meat-reduced diet. In order to convince male meat eaters to reduce their meat intake, targeted communication, which may include messages about meat and masculinity, is needed. The strong association between meat and masculinity may incite men to consume more meat than necessary, as they hope it makes them appear strong and more manly. This connection can also be seen in pop culture and advertisements on different platforms, such as television and print media. In this study, we aim to investigate which men may and may not relate to the idea of “meat is masculine”, starting from a masculine gender identity perspective.

Via an online survey (N=879) we investigated consumers’ attitudes, motivations and behavioural intentions towards both red and white meat. We also captured within-sex differences by means of the Traditional Masculinity-Femininity scale (TMF) and the New Masculinity Inventory (NMI).

The results of this research confirm that men eat more meat than women. These gender differences are larger for redder meats than for fowl. For example, while 3% of men and 7% of women avoid chicken in their diet, 8% of men avoid lamb meat compared to 17% of women. Furthermore, results show us that meat consumption among men correlates with their views on masculinity. More specifically, men who are more open to new norms of masculinity are more likely to already reduce their red and white meat intake, or are more willing to reduce their meat intake. Moreover, men who are open to these new norms of masculinity are also less attached to meat. This statement is also true for men who identify as more feminine. Men who identify as more masculine, on the other hand, are more attached to meat. Regarding possible motives for reducing meat intake, it was found that men who agree with the newer norms of masculinity are more likely to reduce their meat intake because of environmental concerns as opposed to men who are not open to these new norms of masculinity.

In sum, the findings above prove that it is not just about “men” and “meat”. We need more awareness of within-sex differences and the role of different types of meat to fully understand the association of meat and masculinity.
To examine the existing knowledge about health communication strategies to improve nutrition during the first 1,000 days, two large-scale literature screenings were conducted. First, a scoping review of reviews, and second, a systematic review of single studies that examined communication-based nutrition interventions for the target group (e.g., pregnant women, young families, young children). Fourteen databases were searched with 14 keywords (scoping review of reviews) or 274 keywords (systematic review of single studies), respectively. The final sample for the scoping review of reviews consisted of N = 187 reviews published until December 2020. N = 65 single studies constitute the basis for the systematic review for the same time period. The communication strategies used (e.g., communicators, channels, framing techniques, social appeals) were coded using a self-developed extensive codebook.

Our review of successful and not successful single studies indicates that several communication approaches can be effective. Most promising are multi-component setting approaches that employ a variety of communication channels, and that are initiated in the respective communities. Interpersonal contacts are particularly effective to reach economically disadvantaged target group members. Accompanying websites, social media activities and smartphone apps can be similarly effective as traditional media channels such as brochures, leaflets, posters or television. Gain-framing strategies, exemplification strategies and the use of social appeals are commonly applied techniques. Interestingly, the scoping review of reviews identified several barriers for nutrition behavior changes and potential negative intervention outcomes, whereas such aspects were largely non-existent in the analyzed single studies.

Another major finding is that the communication materials used in the reviewed studies are poorly documented. Even though we used manual internet searches to collect further materials that were used in the examined studies, detailed analyses of communication strategies were only possible for one third of all single studies (n = 22). In essence, communication remained a “black box” in most instances, which is a highly problematic finding that impedes scientific progress, replication attempts, and practical applications. Besides, very few studies used communication-related theoretical frameworks or theories.

These and further findings related to evidence-based nutrition communication will be presented. We will also discuss implications for effective nutrition communications and suggestions for improved documentation standards for campaign-related communication activities.

Note. This project was funded by the Association of Private Health Insurance Funds (PKV) Germany.
#Teen food: Adolescents’ Social Media Exposure to Food and its Association with Perceptions and Eating Outcomes

Yara Qutteina, Lotte Hallez, Maxime Raedschelders, Charlotte De Backer and Tim Smits

**Introduction**  A high volume of images, posts, and marketing on social media promotes the consumption of energy-dense low-nutrient food (i.e. Non-core food) among adolescents, and puts them at risk of obesity, diabetes and other chronic disorders. Adolescents have been increasingly shifting from traditional media (e.g., television, magazines, etc.) To digital and social media use, yet little is known about how the high food content they are exposed to on social media is linked to their eating outcomes. Therefore, the aim of this study is to assess the relationship between social media food exposure - including food marketing- and adolescent eating outcomes such as food literacy, attitudes, perceived norms, and intake.

**Methods**  A cross-sectional survey was conducted among 1002 Flemish adolescents between the ages of 11 and 19 years. Mediation models using structural equation modeling were performed to analyze the relationship between reported exposure to social media food messages, food intake, perceived norms, and food literacy. The mediation models included self-reported exposure to food posts on social media as exposure variables, perceived norms and food literacy as mediators, and self-reported food intake as outcome variables.

**Findings**  Adolescents who reported higher exposure to non-core food messages on social media (including food marketing) were more likely to report increased preferences, intentions, and intake of non-core food, as well as more likely to believe that peers consumed more non-core food. Furthermore, perceived food norms and food literacy played significant roles in mediating the relationship between food exposure on social media and adolescent eating, however these roles varied depending on the type of food in question. Perceived descriptive norms mediated the positive relationship between self-reported exposure to non-core food messages (e.g. Indirect effect estimate on self-reported soft drinks intake is 0.003, se 0.001, p<0.05) and branded non-core food messages (e.g. Indirect effect estimate on self-reported sweets intake is 0.023, se 0.006, p<0.000) on social media and increased non-core food intake among adolescents. Food literacy was always significant in mediating the relationship between exposure to core food messages and core food intake (e.g. Indirect effect estimate on self-reported fruits intake is 0.068, se: 0.018, p < 0.000).

**Conclusion**  This study highlights the impact of social media on adolescents’ eating outcomes. Descriptive norms and food literacy play important direct and mediating roles in these relationships, whereby non-core food norms facilitate increased non-core intake and food literacy facilitates increased core food intake. This study provides important insights for health professionals in the design of health campaigns promoting core food intake. We also call for relevant policy actions to address the social media food content adolescents are exposed to on a daily basis.
Knowledge production, belonging and trust around mental illness in closed online spaces

Fredrika Thelandersson

This research project examines the knowledge production and support systems around mental illness in closed social media spaces. This is of relevance to the health care and welfare sector dealing with people suffering from mental illness as these spaces influence the individual's perceptions of their own health and their interactions with the health care system. The knowledge gained will be of use for communication strategies about mental illness and to improve accessibility of care.

The issue of mental illness and suicide prevention is of acute concern in a European and global context (Hagquist and Gustafsson, 2021). Increased rates of individuals afflicted by mental illness cause large-scale individual suffering and has adverse societal consequences (Socialdepartementet, 2020). The ongoing COVID-19 pandemic appears to only worsen the psychic wellbeing of the general public (Hagquist, 2020).

Communication and media play an important role in health management and care (Briggs and Hallin, 2016), with the Internet being the most important source of information about health issues for an increasing number of people (Folkhälsomyndigheten, 2017). Communication is of even greater importance when it comes to mental rather than physical health, as an aching body part tends to be easily defined while determining when one's dread constitutes a depression in need of professional help is much harder. The communication around mental health in a given context determines when a person decides they are sad and ill enough to seek treatment.

The project seeks to answer the broader question of how social media affects perceptions and experiences of mental illness. It does this by focusing on two popular Swedish Facebook groups formed by individuals suffering from mental illness. Here individuals seek support from others with similar diagnoses, ask for advice in dealing with health care professionals and discuss their experiences of particular medications. The research asks three main questions: What kind of knowledge is produced and shared in these Facebook groups? What function do the groups have for their members? What can health care institutions learn from these groups?

The study is divided into two parts. The first looks at patient advocacy groups and clinical practitioners to assess how professional groups view social media in relation to mental health care. The second part turns to individuals with personal experiences of the groups to find out how they perceive the knowledge being produced and shared there and what supportive functions they see them fulfilling. Data will be gathered through interviews with 10 representatives from professional fields and 15 individuals (ages 18-40) active in the Facebook groups.
Suicide prevention for men: A systematic review of (effective?) Communication strategies

Anna Wagner and Doreen Reifegerste

Suicide prevention for men is a highly relevant but extremely challenging societal task. Firstly, men are particularly at risk of suicide: In Europe, men’s suicide rate (14.2 per 100,000) is significantly higher than the rate of women (4.0 per 100,000) (Pompili et al., 2020). Secondly, they constitute a hard-to-reach target group with suicide prevention strategies being more successful for women than for men (Lapierre et al., 2011). Although several scoping and systematic reviews have examined studies on suicide prevention for men (e.g. Dumesnil & Verger, 2009; Gwyther et al., 2019; Krysinska et al., 2017; Struszczyk et al., 2019), little attention has been paid to the effectiveness, ineffectiveness and potential unintended effects (Lorenc & Oliver, 2014) of the employed communication strategies so far. Moreover, empirical studies and reviews (e.g., Sisask & Värnik, 2012) in the field of health communication have focused more on the negative and positive effects of media reporting than on suicide intervention programs and campaigns. Hence, questions on the successful (but also unsuccessful) channels, contents, message forms and settings of male suicide prevention have been neglected.

To address this research gap, we conduct a systematic review on the communication strategies used for suicide prevention in men. Following the PRISMA2020 Statement (Page et al., 2021), we include empirical studies that either examined the effectiveness of male-specific message strategies for suicide prevention or tested general strategies while performing gender-specific data analysis (differentiating between men and other groups). We plan to systematically review the studies with respect to a) the communicators (e.g., different ‘gatekeepers’ such as school teachers, media professionals), b) the media and communication channels used (e.g., information brochures, websites, face-to-face), c) the contents used (e.g., information on help-seeking, knowledge on suicide rates), d) the message form and design (e.g., framing strategies, emotional appeals, narratives), e) the communicative and social settings (e.g., school, community, social media space) where the intervention takes place, as well as f) the target group of the intervention (e.g., homosexual men, depressed men). Moreover, we intend to differentiate between g) the various outcomes of communication interventions (e.g., suicidal ideation, suicidal intentions, help-seeking intentions etc.). To retrieve all relevant studies, we conduct a comprehensive
literature search of the electronic databases Web of Science, pubmed, psycinfo and Scopus. In doing so, we use (combinations of) pertinent search strings (e.g., suicide, suicide prevention, suicide intervention AND gender, male, men, etc.) And Boolean operators. To be included in the review, studies must match all of our predefined inclusion criteria (e.g., focus on gender-specific suicide prevention or gender-specific data analysis; English publication; assessment of suicide-related outcomes). A study is excluded if it meets one of the exclusion criteria (e.g., no communicative strategy; study reports hypothetical cases; participants are not target group of suicide prevention). Upon coding of all included studies, they are analyzed regarding the intended but also unintended effects of the employed strategies. With our systematic review, it will thus be possible to evaluate different strategies for male suicide prevention and potentially determine favorable and detrimental ways for strategic communication.

Who is made Responsible for Participation? Supporting Triadic Decision Making - Patients and their Family Members in Information Material about Dementia

Dominik Daube, Doreen Reifegerste and Annemarie Wiedicke

Dementia is a huge challenge, both for the patients and for their relatives, who have to deal with the new situation. Europe accounts for around 10 million of the 50 million active cases worldwide, with a strong upward trend. The number of cases will almost double in Europe to nearly 19 million cases by 2050. The main consequences of dementia (as the disease progresses) are the need for care and the loss of independence. After the onset of the disease, relatives and friends are inevitably confronted with its consequences. The patients increasingly lose the ability to make (everyday and medical) decisions on their own. Thus, it is inevitable that relatives take over the decision-making on their behalf.

A key approach describing such collaborative decisions is shared decision making, originally dyadic (doctor-patient). Since patients with dementia are often no longer able to make medical decisions independently, the dyadic model can no longer be applied. Relatives, friends or even court-appointed representatives must assess the patient's presumed will to the best of their ability and then make a decision that is defensible to them. For this purpose, the dyadic model (patient-doctor) can be transformed into a triadic model (patient-relative/friend-doctor) [1].

Prepared information materials (on the web or in print) are an important source of information for health concerns. Thus, they are an essential part of (triadic) shared decision making and contribute significantly by providing the reader with additional information about the different treatment options and their consequences. There is already some research about the quality of such materials. However, we still know little about the causes and treatment options described in the material (in the sense of responsibility framing e.g. [2]) and if relatives and friends are held responsible for making decisions for their relatives suffering from dementia. Therefore, this study analyses the following research questions.

RQ1: Which treatment options are addressed in information materials about dementia?

RQ2: Which actors are held responsible for patient care (including decision making) in the information material?
To answer these questions, German-language materials (online and print) are selected via a systematic search strategy and a quantitative content analysis is conducted. Online material was collected by two researchers via the most popular search engines using a uniform (German) search string including the terms “information, education, offer, brochure, flyer, material, campaign and Alzheimer/dementia” logically connected via Boolean operators. The material (sample size ~100) will be coded by three coders, who code disease management measures (e.g., drawing up a living will) and actors as well as responsibilities in decision making and treatment. Thus, this study aims to improve the material design and the empowerment of relatives in decision making.

First results will be available for the presentation in November.

References


**Media in mental health: An approach to conceptualize the media’s role in the help-seeking of people suffering from mental health issues**

*Antonia Markiewitz and Marc Jungblut*

**Introduction** Talking about mental health conditions is still not commonplace in contemporary societies. This is despite data suggesting that many people suffer from diverse mental health issues: A European study shows that the lifetime prevalence of mental disorders is about 14%, meaning that 14% of all European citizens have suffered from a mental disorder at one point in their lives or will do so in the future (Alonso et al., 2004). The WHO indicates that 50% of the countries around the world show a lifetime prevalence of mental disorders of 18.1–36.1% (IQR; 25th-75th percentiles across countries), with the overall range varying from 47.4% (US) to 12.0% (Nigeria) (Kessler et al., 2007). Despite many people being affected by mental health disorders, there is still a stigma attached to these topics. This may lead to people not seeking the (professional) help they need, which might reinforce existing conditions and worsen the suffering (Goepfert, Conrad von Heydendorff, Drehning, & Bailer, 2019). The overall prevalence of mental health issues and its severe consequences make clear that there is still a major need for 1) a better understanding of mental health (issues) and its influences in order to 2) raise awareness and counter the stigma.

**Main argument** This submission offers a comprehensive theoretical model: The Media in Mental Health Model (MMH Model; Figure 1). It conceptualizes the role of media in explaining why some people with mental health issues seek help, while others do not. In doing so, it proposes one possible explanation for how media consumption can influence help-seeking behavior by introducing,
reducing, or reinforcing existing stigma, influencing thwarted belongingness, and impacting perceived burdensomeness.

Figure 1. Overview of the Media in Mental Health Model (MMH Model)

Note: The solid arrows show how the path from mental health issues to help-seeking (intentions or actual behavior) is theoretically influenced by various psychological mechanisms. At its core, this model shows the crucial role of the media in terms of this connection. The dotted line represents an additional link between the media and the concept of thwarted belongingness, which, although theoretically plausible, has not yet been researched regarding this specific interconnection.

To date, even though there is a multitude of studies that focuses on the role of the media in terms of specific mental health issues (e.g., the relationship between the media and suicidality and actual suicidal behavior, see Arendt et al., 2017; Niederkrotenthaler & Till, 2019; mental well-being, see Wulf, Rieger, Kümpel, & Reinecke, 2019), research rarely offers a general perspective on the relationship between media and mental health. Consequently, little is known about the influence of the media on the overall concept of mental health (e.g., O’Brien, 2020). Our MMH Model aims to remedy this.

Conclusion The model defines media broadly, encompassing both traditional mass media and social media. However, different media types have different potentials and effects on people’s help-seeking behavior. Research needs to more clearly analyze those differences. The testing of the MMH Model against empirical reality is needed.
The Effects of Perceived Social Distancing Disadvantages and Online Media Consumption about COVID-19 on Mental Wellbeing and Alcohol Consumption during the COVID-19 Pandemic

Ming Chu Chan, Barbara Schouten, Mark Boukes, Alessandra Mansueto and Julia van Weert

Background  The lockdowns implemented to curtail the spread of COVID-19 have led to drastic changes in individuals’ lives, among which an increase in online media consumption and disadvantages experienced from social distancing practices. To cope with these drastic changes, the WHO (2020) speculated that individuals may turn to alcohol use as a form of self-medication. While previous research indicates that individuals increase their alcohol consumption due to stressful events (e.g., natural disasters and terrorist attacks, etc.), no research has investigated the interrelationships between topic-specific online media consumption, perceived social distancing disadvantages, mental wellbeing, and alcohol consumption in a global health crisis. Therefore, this study aimed to research the influence of perceived social disadvantages experienced and online media consumption about COVID-19 on alcohol consumption and whether this relation is mediated by mental wellbeing.

Method  A total of 1,741 Dutch adults filled out an online questionnaire in early to mid-April 2020 to report on perceived social distancing disadvantages experienced, their online media consumption about COVID-19, mental wellbeing, and alcohol consumption frequency in a week and number of glasses. Hierarchical regression and mediation analyses were performed to test our hypotheses.

Results  Higher levels of perceived social distancing disadvantages were significantly associated with lower levels of mental wellbeing. Likewise, higher levels of online media consumption about COVID-19 from news portals and official health websites were significantly associated with lower levels of mental wellbeing. Mental wellbeing partially mediated the relationship between perceived social distancing disadvantages and online media consumption about COVID-19 on alcohol consumption per week. It did not have a mediating effect on alcohol consumption measured in number of glasses though.

Conclusion  Even though we have trustworthy online sources, this can lead to lower mental wellbeing, and increases in alcohol consumption per week. It would be crucial to educate the public to constrain themselves with over-consuming online information about COVID-19. Some of the social distancing disadvantages, especially loneliness, also lead to lower mental wellbeing and increase alcohol consumption per week. As loneliness is still considered a taboo topic, policymakers should attempt to develop campaigns that can minimize the stigma around it. Nonetheless, the results of this study could differ if they were collected from a different subset of the population, especially one that struggles with prior alcohol use problems. Future research should thus replicate this study from these subpopulations so it can shed light on whether tailored interventions need to be developed in the context of a global health crisis.
Let’s talk about food. Involvement in “social media food identity bubbles” in relation to food choice and dietary quality during COVID-19

Kathleen Van Royen, Sara Pabian, Lauranna Teunissen, Isabelle Cuykx, Paulien Decorte, Jules Vrinten and Charlotte De Backer

Introduction

People use social media to establish, maintain and change their food identities. Social media in particular are known to create and reinforce identity ‘bubbles’. As a consequence of being absorbed in such a food identity bubble people may become biased towards the consumption of certain foods. Communicating about food has always been popular on social media, yet clearly took an uptake since the onset of COVID-19. We predicted (and pre-registered https://osf.io/mqwvn/) that if people strongly adhered to food identity bubbles during COVID-19, they may have different scores for food choices, food intake and dietary quality scores as compared to people who do not submerge to these influences.

Methods

This was tested by means of an online survey (N = 615) that was part of a bigger research project. Data for the presented models was collected via validated scales capturing participants’ media use, involvement in social media food identity bubbles, food choice, food intake and dietary quality. Analyses were done by means of regression and MANCOVA analyses, controlled for gender, age and self-evaluated socio-economic status.

Findings

Results show that the more participants reported to be exposed to messages about food via Instagram (β = .27, p<.001) or Youtube (β = .15, p<.001), the more strongly they were involved in social media food identity bubbles. In contrast, the more participants reported to be exposed to messages about food via other social media, the less likely they were involved in social media food identity bubbles (β = -.10, p<.05). Being exposed to messages about food via print media, TV shows, websites or blogs, Facebook, Pinterest or Reddit was unrelated to being involved in social media food identity bubbles. In none of these analyses gender, age or SES were significant.

Second, results show that involvement in social media food identity bubbles was positively associated to participants’ mood related food choice motivations (β = .23, p<.001) and being motivated to choose natural foods (β = .14, p<.05) while negatively to being motivated to choose familiar foods (β = -.08, p<.05). Other food choice motivations (health, convenience, sensory appeal, price, weight concerns and environmental concerns) were unrelated to participants’ involvement in social media food identity bubbles.

Finally, the more participants were involved in social media food identity bubbles, the better their score on the Dietary Quality Index (β = .16 p<.001). The DQI was also higher for women as compared to men (p<.001), positively related to age (β = .22 p<.001) and not related to self-reported SES. Looking at food intake detail, results show that involvement in social media identity bubbles was positively related to the intake of fruit (η = .01 p<.01), fish (η = .01 p<.05), legumes (η = .03 p<.001), nuts (η = .02 p<.01).

Conclusion

In sum, results confirm that exposure to food via some, yet not all social media, especially among emotionally motivated people, can lead to involvement in social media food identity bubbles, which in the end relates positively to dietary outcomes. Thus, involvement in social media food identity bubbles during a health crisis not necessarily always has a negative impact.
Food Media Exposure, Gratifications Sought and Obtained during COVID-19 in Relation to Changes in Food Literacy among Young Adults

Lauranna Teunissen, Paulien Decorte, Isabelle Cuykx, Kathleen Van Royen, Sara Pabian, Heidi Vandebosch, Christophe Matthys and Charlotte De Backer

Background The ongoing pandemic has brought changes to the food media (i.e., media messages about food) landscape. Since the start of COVID-19, people started to search for recipes more often, photos of people’s baking creations were widely shared on social media, and people have been watching others eat online more frequently. These changes concerning food media are crucial to consider in light of changes in people's food-related knowledge and behavior, such as food literacy (i.e., knowledge, attitudes, and skills to plan, select, prepare, and consume a healthy meal). This importance lies in the dual nature of food media, acting as both barriers and opportunities towards food literacy. Research into if and how food media benefit or thwart food literacy is scarce. Theoretically, it can be assumed that a range of both motivations to seek out food media as well as (often accidentally) obtained gratifications can mediate the relationship between food media and food literacy.

Aim Using a uses and gratifications perspective, this study aims to explore if and how different motivations to seek out food media as well as gratifications obtained by food media could explain the duplicity of food media towards food literacy.

Target population Young adults (18-25) are crucial to study here as they are overwhelmed daily with food media and develop many long-lasting nutritional habits during that life stage. In terms of food literacy, changes during COVID-19 may have a lasting effect, and food media may have played an essential role in this process, though not all may be successful in improving food literacy.

Method An online cross-sectional survey (n=252) belonging to a larger international project explored the food media exposure, food media gratifications sought and obtained during COVID-19, and the differences in food literacy since COVID-19 using validated measures. Structural equation modeling analyses are planned and results will be presented at the European Health Communication Conference.

Conclusion Results of this study will be relevant for further research to examine the causality of the relationships and develop and test an intervention with food media to improve young adults' food literacy.

COVID-related changes in Belgian young adults' food preferences and behaviors: Opportunities for adapted nutritional health campaigns

Paulien Decorte, Lauranna Teunissen, Isabelle Cuykx, Sara Pabian, Kathleen Van Royen, Karolien Poels, Tim Smits and Charlotte De Backer

Background COVID-19 and the resulting lockdown measures have affected people’s well-being and behavior, also regarding food. Among other things, the pandemic resulted in increases in unhealthy
eating behaviors, and other dietary changes. People have also started cooking more, either out of necessity or for stress-soothing and leisure.

Among young adults (18-25 years old), shifts in food choice motivations and priorities have also been documented. This is important to monitor because food choices of young adults are known to impact a broader set of psychological and physical well-being factors, and they are indicative of long-lasting nutritional habits. This age group is thus an important target demographic for nutritional health communication in the wake of COVID-19. Moreover, given the prominence of food (mis)information during the current health crisis, it is timely and necessary to understand how to target young adults by means of interventions that capture their needs and uses.

**Aim**

To explore potential COVID-19 related shifts in food needs and priorities among young adults in relation to their food behaviors and food media use.

**Method**

To contribute to this research, we would like to present Belgian young adult (N=556) results from a large-scale project concerning changes in food and media behavior due to COVID-19, the first wave of which lasted from April 17th– June 25th 2020. Cross-sectional data, with self-report variables assessing cooking barriers, cooking attitudes, recipe seeking, recipe choice motivations, and sources for recipes – both media platforms and people, including media figures. All variables were measured between two self-reported time periods, before COVID-19 and during COVID-19, and were analyzed using repeated measure anovas.

Results from this study echo existing aforementioned findings. Significant shifts in food-related behaviors were found in cooking attitudes and perceived barriers, recipe seeking and choice motivations. Young adults experienced cooking as more enjoyable, relaxing, and a form of creative expression. Negative feelings associated with cooking, such as it being stressful or time consuming, lessened during COVID-19. Time as a barrier for cooking decreased, whereas access to food increased as a barrier.

Regarding recipes, young adults sought these out more often. Recipe choice motivations concerning health, taste, comfort, novelty, and availability of ingredients rose in importance, while those relating to price, speed and ease became less important. The use of print media and celebrity chefs for recipes decreased.

**Conclusion**

Nutritional campaigns aiming to cater towards the priorities young adults have when preparing food may benefit from realizing the changed perceptions and attitudes presented from our study. Detailed findings of these shifts will be presented at the conference, as well as implications for future research and practice.
Chemified-project | development of a mobile health intervention

*Corinne Herrijgers*

**Background**

Chemsex has emerged as a public health concern among gay, bisexual, and other men who have sex with men (GBMSM). Chemsex refers to the use of specific drugs with sex to enable, enhance and prolong sexual interactions. The impact of chemsex is substantial, both on the individual and society.

Digital approaches to support GBMSM engaging in chemsex offer promising but as yet underexplored approaches. GBMSM engaging in chemsex make extensively use of online resources, and digital interventions likely offer an appropriate approach to reach these men, as they are already familiar with how they work. They also always carry their smartphone with them so they can offer support whenever and wherever it is needed, including during chemsex dates/parties.

The goal of the CHEMIFIED-project is to develop a mobile health intervention (‘app’) to support chemsex users in participating more safely in chemsex (resulting in fewer risks).

**Summary of the project**

This project was guided by the six steps of the Intervention Mapping Approach. Each step of the development process was in close collaboration with potential users.

At the start, we analysed the health problem (step 1). This needs assessment included a literature study exploring theories and determinants of chemsex behaviour. Results informed the design of our interview guide, used for in-depth interviews. The aim of the interviews among 20 men engaging in chemsex was to identify additional needs and determinants of chemsex behaviour. Safer drug use, deliberate planning and monitoring of chemsex events, access to healthcare and support, therapy compliance (HIV medication and prep), and assisting others in need were selected as behavioural objectives. By linking these behavioural objectives to the identified determinants (step 2), specific change objectives described what participants are expected to know, think or do as a result of the intervention. In step 3, theoretical methods and practical applications were selected (e.g. ‘self-monitoring of behaviour’ was translated into ‘logbook with timestamps to monitor drug intake’) after which a prototype of the app was developed (step 4).

After the prototype was developed, two pilot studies took place. They consisted of a usability evaluation and an adoption intention study. The usability evaluation consisted of performing tasks in the app (think-aloud testing), filling out the System-Usability-Scale and a two week testing period followed by in-depth interviews to gather feedback about the usefulness, design, features and acceptance of the mobile intervention. The adoption intention study consisted of an online questionnaire based on the Unified Theory of Acceptance and Use of Technology. The pilot studies provided valuable feedback on this prototype. These results were translated into adjustments and additions for the development of the second version of the app.
This second version will be studied on its effectiveness (step 5). Therefore, we aim to evaluate whether the use of the app has an impact on participants’ risk behaviour (operationalised into sub-behaviours), behavioural intention, knowledge, risk perception, attitude, self-efficacy, awareness and emotional wellbeing. After the intervention evaluation, the launch of the mobile app is scheduled in the first half of 2022 (step 6).

**Health communication via embodied conversational agents**

*Lean Kramer*

**Introduction** Embodied conversational agents (ecas) have been proposed as a promising interaction modality for the delivery of programs focused on promoting lifestyle changes. However, it is not understood which factors influence use of an ECA and their health effects. We aim to (1) identify whether ecas can persuade community-dwelling older adults to change their dietary behavior and whether ecas use can decrease loneliness, (2) test these pathways to effects, and (3) understand the use of an ECA.

**Methods** A randomized controlled trial was conducted. The intervention group received access to the PACO service for eight weeks. The waitlist group received PACO after waiting for four weeks. The primary outcomes, eating behavior and loneliness, were assessed via online questionnaires at intake, waitlist, after 4 weeks, and after eight weeks. In addition, the primary outcome—use—was assessed via data logs. Secondary outcomes were measured at the same times, via questionnaires or an optional interview.

**Findings** In total, 32 participants completed the intervention. We found a significant correlation between use in minutes on the one hand, and perceived usefulness ($r = .03, p < .05$) and enjoyment on the other ($r = .38, p < .05$). However, these did not predict use in the full regression model ($F(2,29) = 1.98, p = .16, R^2 = .12$). Additionally, PACO use did not lead to improvements in eating behavior ($\chi^2(2) = .34, = .85$) or a decrease in loneliness ($\chi^2(2) = .02, = .99$).

**Conclusion** Our study did not provide any concluding evidence about factors that are linked to the use or health effects of ecas. Future service design could benefit from either creating a functional design catered towards the predominant stage of the targeted population, or by personalizing the service based on an intake in which the end-user’s stage is determined.

**Conversational Agents for Sexual Health Promotion: A Systematic Review**

*Divyaa Balaji, Linwei He, Gert-Jan de Bruijn, Reinout Wiers and Tibor Bosse*

**Introduction** Digital health interventions for sexual health promotion have evolved considerably alongside innovations in technology. Despite these efforts, studies have shown that they do not
consistently result in the desired health outcomes. This could be attributed to low levels of user engagement, which can hinder DHI effectiveness as users do not engage with the system enough to be exposed to the intervention components. It has been suggested that conversational agents have the potential to overcome the limitations of prior systems and promote user engagement through the increased interactivity offered by bidirectional, natural language-based interactions. Our objective was to review the effectiveness and end-user acceptability of conversational agents addressing sexual health promotion.

Method We searched psycinfo, Web of Science, ACM Digital Library, IEEE Xplore, EMBASE, MEDLINE and CMMC using a pre-defined search strategy. Studies were included if they included a conversational agent; promoted an aspect of sexual health; and reported evaluation measures pertaining to either sexual health outcomes or user acceptability with the system. Studies were screened by independent reviewers and Cohen’s kappa measured inter-coder agreement.

Results The database search retrieved 4,534 citations and 30 articles met the inclusion criteria, of which 16 addressed health outcomes, 27 studies addressed user acceptability outcomes and 13 assessed both. Half (8/16) of the studies addressed antiretroviral therapy (ART) adherence, which was found to be inadequately supported by the systems. Outcomes pertinent to clinic attendance and condom use were associated with mixed results. Pre-exposure prophylaxis (prep) adherence, HIV & STD testing uptake, and HPV vaccination attitude and uptake were studied to a lesser degree and were associated with positive effects. A meta-analysis on these effects is currently being finalized. The relevance of content provided by the systems was generally positively evaluated, although four studies indicated that relevance can be boosted considerably through additional personalization. Users often found the quantity of content to be insufficient and that the clarity of the system could be improved using appropriate visuals to complement the dialogue. Systems were sometimes found to depart from the ideal language style by being too formal and non-humanlike, or too blunt and explicit. Clear and positive results were observed for both actual use as well as intent to reuse, indicating that users adequately engaged with the systems and would be willing to continue using or reuse them in the future. This is consistent with the positive evaluations of user satisfaction, perceived usefulness, and high proportion of users recommending the system to others.

Conclusions The present findings indicate that current conversational agents targeting sexual health outcomes can be effective for promoting certain health outcomes, and while conversational agent technology has the potential to engage users more effectively, it is also essential that the systems employ high-quality evidence-based intervention components. More controlled studies employing rigorous evaluation methods will provide more robust evidence regarding the effectiveness and acceptability of these systems.
Using a multilingual ehealth tool to enhance patient participation in migrant patients

Hande Sungur, Nida Gizem Yilmaz, Brittany Ming Chu Chan, Maria van den Muijsenbergh, Julia van Weert and Barbara Schouten

Background  The prevalence of cancer in Dutch migrant patients is expected to triple in the coming years. Language-related and culture-related barriers are often faced by patients during medical consultations in older Turkish-Dutch and Moroccan-Dutch cancer patients. To overcome these barriers, the Health Communicator was developed. The Health Communicator is an ehealth tool with a multilingual history and video patient education system, including specific illness-related modules. However, an oncological module was missing in the Health Communicator.

Methods  Using the Spiral Technology Action Research model, we developed and pilot tested an oncological module for the Health Communicator. The module contained audiovisual Question Prompt Lists (qplls) with questions about: (1) treatment, (2) lifestyle and services, (3) patient rights, (4) clinical trials, (5) emotional support, and (6) patients’ information preferences. Moreover, patient education videos were developed regarding (1) patient rights, (2) clinical trials, (3) emotional support and (4) doctor-patient communication. All content was based on previously held interviews with patients in which they indicated what information they prefer and need to receive. The module aimed to increase patient participation in older Turkish-Dutch and Moroccan-Dutch cancer patients with low Dutch language proficiency.

Results  The pilot test was performed among 27 older Turkish-Dutch and Moroccan-Dutch cancer patients. The results showed that the QPL and patient education video about patient rights was chosen most often by patients. Older age was negatively correlated with perceived ease of using the qplls. Nevertheless, overall, the qplls were perceived to be relatively easy to understand and useful. Besides, after using the oncological module, both patients and healthcare professionals reported that patients participated more actively during the consultation compared to previous consultations. Moreover, patient education videos were perceived to be easy to understand, useful, and informative. Finally, 70.0% of the patients intended to use the oncological module in the future.

Conclusion  The findings of the pilot test showed that an oncological module that is tailored to the needs of migrant cancer patients can enhance patient participation. Audiovisual narrative materials in the mother tongue of older migrant cancer patients seem to be a particularly promising approach for patient education. The oncological module of the Health Communicator is a viable approach to increase patient participation in older Turkish-Dutch and Moroccan-Dutch cancer patients with a low language proficiency.
Exploring the Potential of Participatory Theatre for Health Promotion: Insights from a Handwashing Intervention in Sierra Leone

Hanna Luetke Lanfer

Despite its benefits for health, the prevalence of handwashing is disproportionately low in low-income countries such as Sierra Leone (Freeman et al., 2014). Investigating why it is a neglected practice, in a previous study (Luetke Lanfer & Rossmann, 2020), we found that individual handwashing behaviour is strongly influenced by factors in the social and structural environment. For example, several norms prevent young women from taking up handwashing during their daily routines of food preparation and childcare.

We employed Participatory Theatre (PT) to explore the methodology’s potential in addressing some of the underlying norms and barriers of handwashing. PT is rooted in Augusto Boal’s (1979) Theatre of the Oppressed who used theatre to engage communities to build collective knowledge and try out different solutions to social issues (Boal, 2006). While PT has been frequently used to build consensus in conflict situations (e.g. Address stigma against people from the LGBT community (Logie et al., 2018) or after violence during elections in Kenya (Baú, 2018)), its application for health promotion has remained underexplored.

In collaboration with a local trainer for PT, a draft play revolving around two young women in an imaginary village was developed. Two villages in northern Sierra Leone were recruited to participate in the project in February 2019. After the initial project presentation, the communities each selected a group of five men and five women to participate in the theatre groups. In biweekly sessions over the course of three weeks, the plays were further developed in conjunction with the community actors and afterwards presented to the whole community. To enable participation of the audience, the freeze-frame technique (Jackson, 2011) was used: Three times during the play, the actors froze to wait for input or stories from the audience, e.g. When a young woman faced resistance from her step-mother as to why handwashing was necessary before feeding her child, the audience was asked what she could do to convince the older female. The actors then integrated some of the ideas suggested by the audience in the play. Breakout sessions in small groups were used after the plays for reflection and discussion of action points.

One week after the community intervention, two focus groups were held in each village with the actors and six members of the audience. The plays were perceived as funny and entertaining while showing “how things really are” (Male, audience). They allowed for trying different actions and observing the consequences of handwashing versus no handwashing. Last, the actors in both villages reported that the method had inspired them to tackle social issues without offending anyone while giving people “food for thought about their own role in things” (Female, actress). To conclude, PT is a promising intervention strategy to address socially shaped health behaviours, challenge power inequities in culturally appropriate ways, allow participants to become owners of the problem and develop locally...
apt solutions. It might also be suited for collective settings in the European context, e.g. With migrant populations from collective-oriented societies or adolescents, but requires further research.

Protective Gatekeeping: Parents’ Withholding of Information as a Measure of Health Promotion

Doreen Reifegerste, Claudia Riesmeyer and Claudia Wilhelm

In turbulent times of a pandemic lots of troublesome information are streaming in on emotionally vulnerable populations such as children, who might not be able to cope with it. Thus, parents not only have the task to explain risks and prevention measures to their children but they also are in the role of protective gatekeepers who try to actively filter out crisis information, instead of selecting specific information following journalistic criteria (which is the traditional interpretation of this term, Engelmann, 2016). Although withholding health information is often regarded as a problematic measure (Yang et al., 2020), we know from relatives of cancer patients and disaster communication research that these measures are done with the bests intention to keep the patients and children away from emotional harm (Dalton et al., 2020; Epstein et al., 2010). Furthermore, we also learnt from disaster communication that inappropriate crisis news selection can lead to panic and trauma (Eckert et al., 2018). However, theories of health information seeking are mostly either focused on the (surrogate) seeking on behalf of others (Cutrona et al., 2015) or only look at individuals trying to avoid health information for themselves; neglecting the avoidance of health information transmission on behalf of others. In contrast, parental mediation theory provides concepts of active and restrictive regulation strategies for children’s media use (Buijzen et al., 2007); neglecting the mediation of information transmission.

Thus, we still do know little about (1) the motives for protective gatekeeping, (2) the individuals for whom this is done, and (3) the strategies of protective gatekeeping.

To fill this research gap, a mixed-method design, which combined semi-structured interviews (n = 55) and an online survey (n = 145), was conducted with parents of children aged 3 to 18 years during the first lockdown in Germany. The recruitment of the interview participants followed a quota system based on the type of school and the age of the children. The interviews covered, among other things, parental information regulation, use of the media as well as their forms of crisis mediation.

Results indicate that most parents emphasize (1) the regulation of (perceived) emotional conditions of the children as motives for protective gatekeeping. One case additionally mentioned inoculation against conspiracy theories as his motive. However, some parents either actively or rather unintentionally decide against protective gatekeeping, because they think their children should get to know the crisis or because they are too busy to worry. Results show that (2) especially younger and presumed sensitive children are protected by withholding crisis information and that parents employ (3) active as well as restrictive mediation strategies. While some prefer to talk (regularly) in person with the children about COVID-19 or co-use media to control the media content and to filter out potentially harmful information (such as pictures of coffins or death statistics), others completely avoid to talk about the pandemic.
Implications for journalistic and parental responsibilities in disaster communication as well as for other health issues (with potential emotional harm) are discussed.

Disconnection as the key to digital wellbeing? A systematic review of the disconnection literature

Lise-Marie Nassen, Heidi Vandebosch and Karolien Poels

Introduction Studies suggest that many people are currently experiencing periods of digital “ill-being” (when the negative aspects of ICT seem to outweigh the positive ones), and are expressing a wish and effectively trying to “limit their use”, “disconnect”, “digitally detox”, “unplug”, or “abstain”... in an attempt to regain a digital balance.

The increasing number of publications on “disconnection” (particularly after the rise of mobile technologies that allow omnipresent connectivity), provides evidence for a current interest in limiting and managing smartphone and ICT use.

The aim of the current study is to systematically review the existing literature on disconnection as to disentangle the definitional and measurement issues, explore the empirical findings regarding its prevalence, people’s motives to disconnection, the strategies they use, and the outcomes of these strategies (do people succeed in disconnecting, and if so, what is its impact on their well-being?). In addition, we focus on interventions that help people in their attempts to disconnect.

Methods To ensure that this review would include all peer-reviewed scientific publications on disconnection, both a search with an exhaustive search protocol in seven databases (EBSCO, Proquest, WOS, Science Direct, Wiley, Scopus, Taylor & Francis) and snowball method sampling were initiated. A total of 122 articles passed the inclusion criteria and are currently undergoing data extraction so that the above mentioned topics can be covered in the systematic review.

Findings After extraction of almost 70% of the sample, we can already present some preliminary findings that emerged from the data. Firstly, the systematic review indicates that most studies on disconnection have been published in the period since 2015. This coincides with the growing popularity of smartphones, that allow for 24/7 connectivity. Furthermore it is clear that different labels are used to describe the same or similar phenomena and that there is no consensus on the definition and measurement of disconnection. The literature furthermore suggests that, especially in recent years, the number of people trying to disconnect is high (with prevalence rates between 61% (users who voluntarily take a break sometimes) and 74% (users who made adjustments to their use)). The most frequently cited motives for disconnection are (in order of frequency): mental health, constant connectedness, lack of control and productivity. The most common strategies for disconnecting are: developing rules for oneself (e.g. Self-control through physical distance or assisting detox apps), smartphone settings alterations and using mindfulness apps. Lastly, the most commonly described effects of taking a break from ICT are: increase of free time, feeling of serenity, control and agency and better reflection of one’s own (problematic) use. In addition, the review also indicates that studies
asking people to disconnect for a period of time, in exchange for incentives, could in turn produce negative effects such as feelings of loneliness and physical stress signals.

**Conclusion** This systematic review will present a state-of-the-art of the disconnection research, but also indicate directions for future research and interventions to promote digital well-being.

**PARALLEL SESSION 5 | THURSDAY 4 NOVEMBER, 15.30 – 16.30 CET**

**Red Room (Room 1) | COVID Communication: Psychology**

**Screen media use and well-being among adolescents and young adults during the Covid-19 pandemic: A systematic literature review**

*Laura Marciano, Michelle Ostroumova and Anne-Linda Camerini*

**Introduction** Adolescence and young adulthood are crucial developmental periods during which individuals enlarge their social sphere, establish a sense of autonomy, and learn to make important decisions to achieve long-term goals. The concomitant maturation of social and cognitive control areas of the brain supports the progress of these skills, together with appropriate contextual and social stimuli. Against this background, the physical distancing measures introduced during the Covid-19 pandemic may have had a detrimental effect on youth development. Past reviews concluded that screen media use have negative but small effects on adolescents’ health. This poses the question whether the augmented use of screen media due to the pandemic may have exacerbated adverse outcomes by increasing social comparison and envy, displacing time for health-promoting activities such as sleep and exercising, and fostering cognitive distraction. Yet, screen media use can also act as a buffer, e.g., by initiating and maintaining social connections in times of limited face-to-face interactions or providing a way to escape and get entertained. The present review aims to summarize the existing evidence on the association between screen media use and well-being in adolescents and young adults during the Covid-19 pandemic.

**Methods** On 16th April 2021, a systematic search was carried out in titles and abstracts of nine academic databases, including, among others, Medline and psycinfo. Key terms covered the population (e.g., “adolescent*”, “teen*”), activity (e.g., “social media*”, “screen time*”), outcome (e.g., “well-being*”, “psych*”), and setting (e.g., “covid*”) and were combined using Boolean operators. Only peer-reviewed articles with original data on a population aged 10 to 25 years, together with measures of digital media use and well-being in the context of the Covid-19 pandemic, were included. Studies focusing on education, Internet-based interventions, information-seeking behaviours, contact tracing, and clinical populations were excluded. Two authors screened all titles and abstracts according to predefined eligibility criteria. Cohen’s kappa was .80, indicating substantial agreement.

**Preliminary findings** From the initial search, 378 records were obtained, of which 189 were removed as duplicates. After title and abstract screening, 65 full-texts were inspected. Eventually, 39 articles were...
retained in the systematic review. The mean age of participants was 18.77 years (SD=4.29). Studies were conducted in Europe (n=15), Asia (n=12), America (n=9), Australia (n=1), and middle East (n=2). Studies assessed screen time (n=17; including television, video-gaming, and Internet use), social media use (n=17), and problematic media use (n=8). Two studies collected specific information on smartphone use, and one on the use of applications for physical activity. Well-being was measured in terms of lifestyle habits (e.g., physical activity, sleep, smoking, nutrition, and sedentary lifestyle in general), psychological well-being (e.g., general mental health, depression, anxiety, life satisfaction, emotion regulation, resilience), and social well-being (e.g., quality of interactions, social support, fear of missing out, and loneliness). Additionally, studies looked at pandemic-related factors such as distress, fear, and worries due to Covid-19. Further results and a summary framework will be presented during the conference.

Screen media use and life satisfaction in children and adolescents during the Covid-19 pandemic: A latent growth analysis

Laura Marciano, Emiliano Albanese and Anne-Linda Camerini

Introduction  Life Satisfaction (LS) promotes healthy behaviours and lifestyle, and it is inversely associated with psychological problems in youth, including depression, anxiety, and suicidal ideation. Additionally, LS has been found to correlate with less negative emotions evoked by the Covid-19 pandemic. Different habits can contribute to LS in young people, among others, social (e.g., instant messaging, social media use) and process (e.g., news consumption, entertainment, relaxation) use of screen media. Evidence from longitudinal studies suggests that while adolescents’ mental health declined, screen media consumption increased during the Covid-19 pandemic. However, evidence is inexistent on whether and how social and process media use differently impacted LS in children and adolescents during the pandemic. In the present paper, we aimed to explore temporal variations in LS in children and adolescents during the Covid-19 pandemic and to test the hypothesis that these variations were predicted by the type of screen media use.

Methods  The analytical sample included 764 children and adolescents (Mage=12.51, sdage=4.0; 52% females) from Corona Immunitas, a Swiss population-based, prospective cohort study. Starting from October 2020, we measured LS monthly up to eight times. We modelled changes in LS as a function of process- and social-oriented use of screen media at T1, gender, age group (5-13 vs 14-19 at time of enrolment), and study starting time (i.e., October, November, or December 2020).

Findings  We found that a latent growth model with a quadratic trend (depletion in this case) fit the data best (CFI=.994, RMSEA=.024, SRMR=.044). Being female (β=.206, p=.017), between 14 and 19 years of age (β=.468, p<.001), and reporting higher process media use (β=.205, p=.002) were all related to lower levels of LS at baseline (i.e. Intercept). Frequent social use was inversely associated with the decline in LS (β=-.156, p=.085), although not significant with p<.05.

Conclusion  We used repeated observations over eight months and found a progressive decline in LS in both children and adolescents during the COVID-19 pandemic in Switzerland. While process-
oriented screen media use was associated with lower starting levels of LS, building and maintaining social contacts through screen media during the pandemic seemed to buffer the decline in LS, however, the latter result showed only a marginally significant trend. Hence, the effect of social-oriented screen media was either very small or dissipated through the study period. Possible explanations will be discussed during the conference.

The Influence of Family Communication on Coping during the COVID-19 Pandemic in Germany

Miriam Jaspersen, Elena Link and Eva Baumann

Introduction
Far-reaching protection measures were implemented worldwide to combat the COVID-19 pandemic. Families in particular were severely affected by the constraints associated with these measures and were challenged to cope with manifold stressors (Andresen et al., 2020). Individuals’ and families’ crisis management can be distinguished according to functional (active problem solving) and dysfunctional (avoiding or ignoring the problem) coping styles (Seiffge-Krenke, 1995).

According to Maguieres’ Communication-Based Model of Family Coping (2012) communication is essential, but can trigger both functional and dysfunctional coping. Communication style as well as conversation content influence crisis management (Maguire, 2015; Theiss, 2018). Further, talking about the COVID-19 pandemic in the family may play an important role in this context. However, stress can negatively influence communication (Maguire, 2012).

Against this background, we aim to examine how the proportion of family communication about COVID-19, topics spoken about and communication styles mediate the influence of perceived stressors on functional and dysfunctional coping during the COVID-19 pandemic.

Method
To explore the role of family communication for functional and dysfunctional coping with perceived stress during the COVID-19 pandemic, we conducted an online survey of 1,057 parents (M = 44.93, SD = 7.49; 54.2 % female) of at least one child in the age between 10 to 18 via an Online Access Panel in Germany. Exploratory factor analyses (EFA) were conducted to identify relevant stressors (health-related stressors versus structure-related stressors), family communication styles (constructive vs. Destructive) and topics of family communication (protective behaviors, consequences of COVID-19, school duties).

Results and Discussion
The findings of two mediation analyses performed with Hayes (2013) PROCESS macro showed that health-and structure-related stress, the share of COVID-19 family communication, constructive and destructive communication styles and talking about protective behaviors, consequences of the COVID-19 pandemic and school duties explained a higher amount of variance for dysfunctional (R² = .49; p ≤ .001) than for functional coping (R² = .29; p ≤ .001). Across different types of stressors, we found topics of family communication to be relevant mediating variables between both types of perceived stress and functional and dysfunctional coping. However, only talking more about school duties decreased dysfunctional coping, whereas talking about the consequences of the COVID-19 pandemic increased functional and dysfunctional coping. The extent to which a
constructive or destructive communication style was found to have a mediating role for both types of coping was dependent on the type of perceived stress. Health-related stress (like fears of infection) was found to promote a constructive communication style, whereas structure-related stress (like fear of job loss) led to dysfunctional forms of communication, which also led to less functional and more dysfunctional coping. Moreover, structure-related stress also had a direct influence on dysfunctional coping. In contrast, the amount of family communication about COVID-19 played only a minor role for coping with stress.

The findings highlighted suggest that future research should consider more comprehensively what families communicate about, while also taking a more differentiated look at the perceived stressors to identify more health promoting factors in family communication and coping in crisis.

I can(not) handle this: the effect of portrayed coping self-efficacy in narratives on readers' emotions and coping self-efficacy

Sofie Mariën, Heidi Vandebosch and Karolien Poels

Research on social support websites warns that a negativity bias within the personal narratives that are exchanged on these websites may leave readers with more anxiety and stress in relation to the problems they experience (Batenburg & Das, 2014; Lawlor & Kirakowski, 2014; Rains & Wright, 2016). Limited research has studied the effect of portrayed self-efficacy in narratives on readers emotional responses and self-efficacy believes in the context of social support websites. Based on narrative persuasion theory, this study aimed to determine whether a narrative portraying a protagonist with high vs. Low coping self-efficacy may influence readers’ emotional responses and coping self-efficacy in relation to a disstressing event, in this case the COVID-19 pandemic. The results of this study have practical implications for the use of narratives for health intervention purposes. More specifically, we will apply the results to the context of social support websites for young people.

An online experimental survey was conducted among 302 students (18 to 25 years old). Participants were asked to read a narrative in which a person claims to feel either confident (high coping self-efficacy narrative) or unconfident (low coping self-efficacy narrative) in overcoming the difficulties resulting from the COVID-19 pandemic. The effectiveness of these two narratives are compared by analyzing readers’ change in emotions and coping self-efficacy in relation to the COVID-19 pandemic. Moderation analysis in PROCESS (version 3.4.1) was used to analyze the moderating effect of several narrative persuasion mechanisms, such as identification, transportation, self-referencing, and similarity. Gender was taken into account as a covariate.

The results showed that the high coping self-efficacy narrative had a direct positive effect on change in emotions compared to the low coping self-efficacy narrative. This effect was not moderated by any of the narrative persuasion mechanisms and was the same for men and women. This means that a narrative portraying a protagonist with high coping self-efficacy influenced readers’ emotional responses in relation to the COVID-19 pandemic in a positive way.
The high coping self-efficacy narrative did not have a direct effect on change in coping self-efficacy. However, a moderating effect of similarity was found. No moderating effect was found for the other narrative persuasion mechanisms. Compared to men, women experienced a higher change in coping self-efficacy after reading the high coping self-efficacy narrative. These results show that participants who read a narrative portraying a protagonist with high coping self-efficacy and experienced many similarities between one’s own experiences and the experiences of the protagonist, experienced a higher positive change in coping self-efficacy in relation to the COVID-19 pandemic.

**PARALLEL SESSION 5 | THURSDAY 4 NOVEMBER, 15.30 – 16.30 CET**

**Yellow Room (Room 2) | Patient Communication (1)**

**A roadmap to satisfaction, adherence, and well-being? Where we’re heading with patient-centered communication for cancer treatment decision-making in the Google era**

*Simone Jäger*

**Introduction**  Patients increasingly seek health information online prior to the consultation to better cope with diseases and treatments, even more so during the COVID-19 pandemic as a physical-distance-safe way to access medical knowledge. This gains special meaning for vulnerable patient groups and in particular, for treatment decision-making in chronic diseases with a high mortality rate, cancer among them. Considerable information needs and a pressure to act are mostly present while the Internet offers a flood of information on therapies, their side effects, and success rates. Many Internet-informed patients discuss their search results with their physicians, changing the health communication dynamic on the interpersonal level. Different studies indicate that good doctor-patient communication positively impacts patients’ outcomes (cf. Dean & Street, 2015; Epstein & Street, 2007; Roter, 2000; Roter & Hall, 2006; Street, Makoul, Arora, & Epstein, 2009; Street, 2013). This research looks into doctors’ effective patient-centered communication in the offline cancer treatment decision-making setting in the Google era. The main research questions of this selected part are: (1) Which are the key elements of ideal communication in these conversations with Internet-informed cancer patients? (2) Which effect do the identified best practice strategies (BPS) have on patient-reported satisfaction, adherence, and well-being? (3) Which BPS work best in which patient-specific scenarios?

**Methods**  The two main perspectives of the medical interaction for the three most prevalent cancer types, i.e. Breast, colon and prostate cancer, were explored with a mixed methods design in two steps, both online and nation-wide in Germany. A partly standardized, two-round Delphi survey (2018/19) with treatment-leading physicians and patients’ representatives identified the expert consensus on ideal BPS. A quantitative survey with cancer patients (2021) explored the effects of the BPS on the three patient-reported outcomes and the interplay with predispositional and situational factors and involvement/engagement.
**Findings**  
Doctor-patient relationship, information exchange, and dealing with emotions proved as main categories of the final catalogue with 43 BPS for ideal patient-centered communication whereas concrete uncertainty management appears less important in this specific context. The BPS explicitly focusing on patients’ Internet search for the treatment decision-making talk have a complementary function. The analysis of the effect of the BPS on the patient-reported outcomes and the interplay with patient-related characteristics on the three levels in the interaction model revealed significant correlations and diverse patient-specific scenarios.

**Conclusion**  
Effective doctor-patient communication considering cancer patients’ search for treatment decision-related health information on the Internet has been examined. Preparation appears to be key to the concrete decision-making talk, thus, doctors should invest in the whole communication process from the beginning of the encounter. The BPS with a specific focus on patients’ Internet search complete the basis of broader communicative strategies in this context. The identified BPS and their effects on the three patient-reported outcomes confirm the importance of a patient-centered communication style. There is a complex interplay between them and patients’ predisposition, situation and behavior at work, indicating directions of future research and practice for the face-to-face-interaction in the cancer care context in the course of the ongoing Internet age.

---

**Addressing Usability in Health Communication: Understanding the Cognitive Dynamics Affecting Health Communication Processes**

*Kirk St.Amant*

Usability studies explains that meeting the communication needs of individuals requires an understanding of the contexts where they use materials (Norman, 2002; Garrett, 2010). Certain scholars have thus advocated applying ideas from usability to the design of materials for patients in different healthcare contexts (see Meloncon, 2016). Addressing this objective is no simple task. It requires an understanding of the complex and shifting settings where patients use such materials (Meloncon, 2015). The challenge involves identifying the variables affecting how and when such materials are used in different settings. Individuals designing communication materials for patients can benefit from approaches that identify such context-related communication variables. A modified version of script theory can help to address such situations.

Proposed by Silvan Tomkins, script theory views communication contexts as sequences of standard processes – or scripts –humans use to move through different contexts in their daily lives (Tomkins, 1978). These scripts contain variables that influence how individuals expect to access and use communication materials in different settings. Later modifications of script theory have identified additional variables individuals can track to better understand how the context in which persons use informational or instructional material affects the uses of information (Shank & Abelson, 1977). More recently, this modified approach to script theory has been used to examine the contexts in which patients use health and medical information (St.Amant, 2015). These approaches note how one can apply script theory to produce patient-centered health communication that reflects the contexts in which patients use such materials.
This proposed presentation would examine how script theory can guide the design of more patient-centered health communication. In so doing, the presenter would

- Overview script theory and how it helps individuals understand contexts where materials are used
- Explain how script theory can guide the design of materials to enhance use by different audiences
- Describe uses of script theory to research the contexts where patients use health communication materials
- Discuss how the results of a script theory analysis of contexts can facilitate the design of materials for patients

Through this approach, attendees with gain a familiarity with script theory and learn how to use it to understand the contexts in which patients use information and then designing materials to meet those expectations.

References


*Coordinated cooperation or inappropriate intrusion? A quantitative analysis of the form and function of interruptions in general practice.*

Ilona Plug, Sandra Van Dulmen, Wyke Stommel, Tim Olde Hartman and Enny Das

**Introduction**

Interruptions are often negatively associated with the exertion of power and breaking into the other’s conversational turn, and as stereotypically done by male speakers. Although the nature of interruptions sometimes is indeed intrusive, linguistic studies have shown that interruptions often characterise interactions as a joint activity, and that interruptions are not exclusively made by men. In particular within the institutionalized context of medical interactions, physicians’ interruptions of patients’ talk are considered disadvantageous to the flow and outcomes of the interaction. In light of the idea that not all interruptions are attempts by a physician to take over the floor or to exert conversational power, some studies have differentiated between the use of cooperative and intrusive interruptions in medical interactions. It is yet unknown how and when physicians and patients in
different sex dyad compositions use these various functions of interruptions in interactions in general practice. Furthermore, the association between interruption patterns and important patient outcomes, such as anxiety and satisfaction, is still unexplored. The present study aims to examine these matters by means of a quantitative analysis of interruptions in general practice consultations with patients with common somatic symptoms.

Method By use of a codebook and a quantitative content analysis, we systematically analysed the form and function of interruptions in interactions in 80 naturalistic general practice consultations, involving four different sex dyad compositions (e.g., female general practitioner, male patient).

Findings The first tentative analyses demonstrate that more than 75% of the interruptions are cooperative, i.e., showing agreement/understanding, providing assistance or asking for clarification. The few intrusive interruptions, e.g., to show disagreement or to take over the floor, were more often made by patients than by general practitioners. As for the form of the interruption, questions or paraphrasing interruptions were most often made by general practitioners, whereas statement interruptions were most often made by patients. Regarding the moment of the interruptions, interruption patterns differed depending on medical role and consultation phase. During the phase of problem presentation, general practitioners used many interruptions to show agreement/understanding or to ask for clarification, whereas patients mainly interrupted to provide assistance (e.g., giving additional or more precise information). Contrarily, during the phase of diagnosis and discussing a treatment plan, patients started to use more cooperative interruptions to show agreement/understanding, whereas general practitioners often interrupted to provide assistance. Lastly, interruptions patterns did not remarkably differ between the four sex dyad compositions or depending on speaker’s gender, in contrast to the gendered association between interruptions and masculine speech. We have yet to analyse the relationship between interruption patterns and changes in relevant patient outcomes.

Conclusion gps and patients use various forms and functions of interruptions for particular interactional goals in different phases of the consultation. These initial findings suggest that we should no longer focus on interruptions as masculine acts to exert power or dominance in general practice interactions, but rather as acts that have the potential to facilitate and benefit the interaction.

Interdisciplinary learning in healthcare communication: Dare to change perspectives

Jessica Oudenampsen, Marjolein van de Pol and Enny Das

Introduction Healthcare is increasingly facing complex challenges. Many examples during the COVID19 pandemic show that problems in healthcare cannot be solved by healthcare professionals alone; our complex society inquiries collaboration and an interdisciplinary working environment. In healthcare communication, collaboration from medical professionals with professionals from other disciplines is necessary to meet society’s expectations.

To teach undergraduate students the importance of collaboration with professionals outside their own realm, and to specifically integrate the knowledge and skills related to communication in healthcare, we developed an interdisciplinary minor called ‘Healthcare communication, management and
organisation’. During this minor, communication and information sciences (CIS) and medicine students work together in interdisciplinary teams. They face real-world communication challenges, such as scientific-linguistic issues in the doctor’s office. In conversations with simulation patients they are for example challenged to share their knowledge about (healthcare) communication and practice their resistance- and persuasive communication techniques.

During interdisciplinary learning, students are expected to synthesize and integrate multiple elements of disciplines. In doing so, interdisciplinary learning may generate different learning outcomes. However, research about specific learning outcomes of interdisciplinary learning remains scarce. Moreover, to our knowledge no research has been conducted on interdisciplinary learning related to healthcare communication.

In our research, we investigate the learning outcomes of interdisciplinary learning. With regard to this minor, we investigated the effects of interdisciplinary learning on students’ knowledge about and perspectives on healthcare communication and the development of their communication skills.

**Methods**  By means of questionnaires with closed questions, both groups of students (medicine, CIS) were asked to reflect on the experiences with interdisciplinary learning. Subsequently, in-depth semi-structured individual interviews were conducted. Firstly, they were asked to reflect on the change of perspectives and learning outcomes concerning personal development. Secondly, they were asked to reflect on (change of) their communication styles and use of different linguistic elements. Results were analyzed using constant comparative analysis.

**Results**  Results show that interdisciplinary learning affects perspectives about, knowledge of and skills in healthcare communication for both groups of students. Medicine students report that they are better aware of the impact of communication and have a broader perspective of communication in healthcare. They learned new communication theories, and were able to apply new skills during communication practice. Communication students reported to have learned about (difficulties with) applying communication theories in practice. They were able to deepen their understanding about healthcare communication and to improve their own communication skills. Overall, students indicated that interdisciplinary learning contributed to better awareness about their own expertise and the expertise of others, as well as to more awareness about the importance of collaboration in solving complex (healthcare) problems.

**Conclusions**  Interdisciplinary learning is an innovative way to learn new perspectives, knowledge and skills related to communication in healthcare. In interdisciplinary minors students learn how to integrate knowledge and skills related to healthcare communication from different disciplines, in order to improve healthcare communication and tackle increasingly complex (real world) challenges.
Understanding patients' facilitators and barriers of the entire EHR usage process

Anna Griesser and Sonja Bidmon

The process of digitalization in health has led to new approaches for patient care and networking with and between health professionals and is accelerated by, e.g., challenges with regard to long-time care, demographic change, or multimorbidity. These challenges have dramatically changed the situation for health actors. This phenomenon captures more and more spheres of health care (e.g., online follow-up examinations, electronic prescription/medication plans, or wearable technology applications for support in chronic disease care). A promising endeavor at the early stages of digitalization was the connection of patient-related electronic health records (EHR) between health care providers during a treatment process. Grounded in patient individualization and shared-decision making, EHR guarantees transparent access and an interoperability network for the treatment process also from a longitudinal perspective.

Nevertheless, regardless of optimized health and digital opportunities, many patients lack acceptance of electronic health records, resulting in information asymmetries, and a ‘best-point-of-service’ is still far off. A holistic view of the entire process of EHR usage, initially beginning by awareness, proceeding to adaption, usage, and the final performance, however, has been lacking. Thus, the current approach aims to reduce knowledge gaps regarding the barriers and facilitators of patients' and health professionals' EHR usage in each phase.

A qualitative approach using focus group discussions and expert interviews is utilised to explore the facilitators and barriers of the entire EHR usage process, including awareness-raising, adaption configuration, actual usage, and final performance. In a first step, we have conducted four focus groups, outlined with an interview guideline, with patients to examine influencing aspects to the entire EHR usage process. The groups were divided into homogenous subgroups according to age and EHR usage experience. One group was composed of younger people (up to 45 years) with user experience and one without user experience. Another group was composed of older people (46 years and more) with user experience and one without user experience. This approach resulted in four groups with 28 interviewees in total. All of the interviews were transcribed in full verbatim and analysed using qualitative content analysis (Mayring, 2014). The main deductive categories that occurred as facilitators or barriers for multiple steps in EHR usage were current awareness, the existing experience of use, the willingness to use, and ideal conception. Other inductive categories were drawn out of the material.

Furthermore, the present study also aims to analyse transparent barriers and facilitators of EHR usage from the perspective of health professionals. We plan to conduct eight to twelve semi-structured interviews with experts from healthcare organizations (physicians). Also, the expert interviews will be transcribed in full verbatim and analysed using qualitative content analysis (Mayring, 2014). A targeted communication policy from a health-communication perspective might have to be set, highlighting needs and potential benefits in the long run. However, given adequate support and training,
users are willing to increase their role in the digital treatment process and develop further implications for the system, with potential medical, economic, and communicative benefits for patients, health professionals, and the rest of the health care system.

An autonomy-supportive web-based decision aid to assist smokers in choosing evidence-based cessation assistance: Short-term findings from a randomized controlled trial

Thomas Gültzow, Eline Suzanne Smit, Rik Crutzen, Shahab Jolani, Carmen Dirksen and Ciska Hoving

Background Smoking continues to be a major driver of global mortality. While various forms of effective evidence-based cessation assistance are available, their use is limited. Offering decision aids (das) to individuals motivated to quit smoking may be helpful in increasing use, but insights into the effective elements of das are currently lacking.

Objective This study's aim was to test the added value of an explicit value clarification method (VCM) paired with tailored advice to a web-based DA aimed at facilitating decision making around the use of cessation assistance. The primary outcome measure was 7-day point prevalence abstinence 6 months post baseline (T3). Secondary outcome measures were 7-day point prevalence abstinence 1 month post baseline (T2), evidence-based cessation assistance use (1- and 6-month(s) post baseline, T2 and T3) and decisional conflict (immediately post DA, T1). This presentation will focus on the short-term effects immediately post DA (T1; decisional conflict) and 1 month post baseline (T2; 7-day point prevalence abstinence and evidence-based cessation assistance use).

Methods A randomized controlled trial was conducted to reach this aim. The intervention group received a smoking cessation DA with an explicit VCM paired with tailored advice, the control group received the same DA without the explicit VCM paired with tailored advice. Participants were mainly recruited online. All data was self-assessed. Logistic and linear regression analyses (crude and adjusted for covariates selected a priori) were performed to assess effects on all outcome measures. To test the robustness of the results, analyses were conducted according to 2 (decisional conflict) and 3 (7-day point prevalence abstinence and evidence-based cessation assistance use) different scenarios: (1) Complete cases only, (2) worst-case scenario (dropout respondents are considered to still smoke), and (3) multiple imputations. According to an a priori sample size calculation (α=.05; β=.20), 796 participants were needed to test the effect on the primary outcome.

Results Initially, 2376 participants were randomized (n=1192 intervention group, 50.2%); 1164 completed the baseline questionnaire (n=599 intervention group, 51.5%); 599 completed the das (n=275 intervention group, 45.9%); 276 completed T1 (n=143 intervention group, 51.8%); and 97 completed T2 (n=54 intervention group, 55.7%). T3 is not yet completed. Effects in favor of the intervention group on the primary outcome were only observed in the worst-case scenario (crude model: OR=2.61, 95%CI 1.08-6.93, P=.04; adjusted model: OR=2.71, 95%CI 1.09-7.37, P=.04). Effects on the secondary outcomes were not observed in any scenario. In the group that completed the das, attrition was 26.8% higher in the intervention group, X2(1, N=1164) = 15.22, P<.001.
Conclusions  We cannot confidently recommend the inclusion of explicit vcms paired with tailored advice to smoking cessation das. In fact, they might result in higher attrition rates during DA completion, thereby limiting their potential reach and effectiveness. However, because a lack of statistical power and the short follow-up period may have influenced our findings, we recommend waiting for the long-term follow-up data before drawing any conclusions. At the time of the presentation, we will be able to present long-term findings.

From Start to Finish: Investigating Factors Related to Adoption and Discontinuance of Mobile Walking Apps

Anne L. Vos, Edith G. Smit, Michel C. A. Klein and Gert-Jan de Bruijn

Introduction  Walking apps can be practical tools for promoting walking behavior. However, the success of walking apps not only depends upon initial adoption but also, crucially, upon continual usage. Improving our understanding of the dynamics of walking app usage in terms of the occurrence of app adoption and discontinuance is thus essential to optimize their potential health benefits. Therefore, this study aims to understand: (1) the extent to which app use transitions occur over time, (2) which type of usage transition (i.e., adoption or discontinuance) is most prevalent, and (3) the sociodemographic, behavioral, and technology-based factors from the Technology Acceptance Model that are related to the adoption and discontinuance of walking apps.

Methods  Data were collected through a two-wave panel study. A stratified random sampling method was used. Walking app use status, perceived ease of use and usefulness, usage intention, and walking behavior were assessed at baseline (t1). Four weeks later, at follow-up (t2), walking app use status was assessed again. Complete responses were provided by 1,250 respondents. Frequencies and proportions were used to illustrate the occurrence of app use transitions and to describe which transition (i.e., adoption or discontinuance) was most prevalent. Two discriminant function analyses (dfas) were conducted between different user groups. The first DFA compared the respondents who continued to not use apps with the group who started app use at t2. Our second DFA compared the respondents who continued to use apps with the group who stopped app use at t2. These analyses identified the predictors that were important for the discrimination between user groups, indicated by their correlation with the discriminant function.

Findings  The majority did not use walking apps at t1 (n = 848, 67.8%). Most respondents (n = 1,065, 85.2%) did not change their (non-)use of walking apps over time. Changes in walking app use occurred among 185 respondents (14.8%). Of the 848 respondents who reported not using walking apps at t1, 95 (11.2%) had adopted one at t2. Of the 402 respondents who reported using walking apps at t1, 90 (22.4%) had discontinued use at t2. This proportion of discontinued users was significantly higher than the proportion of app adopters ($\chi^2[1] = 27.06, p < .001$). For the discrimination between continued non-users and app adopters, perceived ease of use ($r = .31, p = .027$) and usefulness ($r = .51, p < .001$) were significant predictors. For the discrimination between continued users and discontinued users, perceived ease of use ($r = .46, p = .001$) and usefulness ($r = .73, p < .001$) were also significant predictors.
**Conclusion**

This study confirms that low usage rates are a critical challenge for walking apps. Furthermore, our results indicate that walking app (non-)use was primarily stable over time. Among the respondents who changed their use of walking apps over the four weeks, our findings show that discontinuance was significantly more prevalent. Finally, our findings address the importance of technology perceptions in motivating both the adoption and the discontinuance of walking app use.

**PARALLEL SESSION 6 | FRIDAY 5 NOVEMBER, 9.00 – 10.00 CET**

**Red Room (Room 1) | COVID Communication: Measures**

**A Culture-Comparative Study on the Adoption of Contact Tracing Apps in Singapore and Switzerland**

*Sarah Geber and Shirley Ho*

Contact tracing apps have been introduced as part of the COVID-19 containment strategy worldwide. They are linked with the hope of controlling the pandemic while allowing the economic, political, and social system to recover. Simulation studies show, however, that an adoption rate of about 60% is necessary to allow tracing apps to reach their full potential (Hinch et al., 2020; see also Ferretti et al., 2020). This rate is far from being reached in most countries, including Singapore (Gardner, 2020), which was one of the first countries to deploy a national tracing app, and Switzerland (Federal Statistical Office, 2020).

Given the crucial role of widespread adoption in the population, the present study starts with the (potential) users and their perceptions about the app. More concretely, it examines how different forms of communication are associated with app-related perceptions and how these perceptions are correlated with app adoption. To get a differentiated understanding of the meaning of communication as correlate of app-related perceptions, the framework differentiates between attention to news media and social media. Further, to identify relevant app-related perceptions, the framework acknowledges that tracing apps are digital technologies as well as health protection measures. It therefore combines perceived usefulness and perceived ease of use as well as perceived social norms from the technology acceptance model (Davis, 1989) with perceived threat of COVID-19 and of data misuse borrowed from health protection research (Rogers, 1975; Rosenstock et al., 1988).

To examine to which extent this framework is culture-dependent, it is applied to app adoption in Singapore and Switzerland. Singapore and Switzerland are particularly suitable for a cross-cultural approach. While both countries have in common well-established technological infrastructures, they differ in their media systems and cultural values. The Singaporean media system can be characterized as an authoritarian and the Swiss system as a democratic one (Bonfadelli, 2008; Hallin & Mancini, 2006); further, Singapore is characteristic for collectivistic countries while Switzerland can be regarded as representative for rather individualistic countries (Hofstede, 2001).
To examine cross-cultural differences in the associations between media attention and app-related perceptions as well as between these perceptions and app adoption, we conducted cross-sectional surveys in Singapore (N = 998) and Switzerland (N = 1,022) in December 2020. Multigroup structural equation modeling demonstrated important differences in the study’s framework between both countries. First, concerning the role of media attention as a correlate of perceptions, the results reveal that attention to social media was associated with reduced positive perceptions of the app (i.e., perceived usefulness, perceived ease of use) in Singapore but not in Switzerland. Second, with regard to the behavioral relevance of perceptions, we find that perceived usefulness of the app was associated with app adoption in Switzerland but not in Singapore; conversely, perceived social norms towards app use were more strongly associated with app adoption in Singapore than in Switzerland. We will discuss these differences against the background of the countries’ media systems (authoritarian vs. Democratic media system) and cultural orientations (collectivism vs. Individualism) and outline the implications of our findings.

Flattening the curve: Unraveling the persuasive effects of webpage customization on users’ attitudes toward coronavirus health behavior measures

Sara Groos, Annemiek Linn, Nadine Bol and Minh Hao Nguyen

Introduction  Webpages have been an important avenue for communicating coronavirus-related health behavior information to the public. Yet, they often employ a one-size-fits-all approach – delivering the same information to each user, which can hinder their persuasive power. User-initiated mode tailoring (i.e., self-tailoring the mode of online health information) can enhance persuasion by inducing heightened perceptions of control among users, and such perceptions are expected to indirectly enhance persuasive outcomes. These indirect pathways to persuasion have yet to be explored for user-initiated customization (UIC; i.e., self-tailoring both the mode and content of online health information), and whether these hold in different health behavioral contexts. This study aimed to advance our theoretical understanding of UIC effects by unraveling the distinct pathways to persuasion and seeking novel insight on whether the strength of these pathways vary depending on the type of health behavior undergoing customization. To achieve the above, this study incorporated UIC in webpages about the coronavirus health behavior prevention (i.e., hand washing) and detection (i.e., viral testing) measures.

Methods  A 3 (webpage: UIC vs. Generic text-only vs. Generic text and illustrations) x 2 (health behavior: prevention vs. Detection) between-subjects experimental design (N = 178) was used to assess the effects of UIC on attitudes via the underlying pathways of (1) sense of control, (2a) attention, and (2b) elaboration, as well as the moderation effect of health behavior on UIC and sense of control. Participants were recruited from both European and non-European countries. We developed six different versions of a webpage that displayed information about the coronavirus health prevention or detection behaviors in the form of leaflets. The UIC webpages included a built-in filter that allowed users to self-tailor the delivery mode and content of their informational leaflets. This feature was not available in the generic webpages.
Findings  The results showed that the UIC versions of the webpage (vs. Generic versions) significantly enhanced users’ sense of control, which consequently led to greater attention and deeper elaboration of information among users. This, in turn, resulted in more positive attitudes toward the coronavirus health behavior measures. The strength of the aforementioned pathways did not depend on the type of health behavior (i.e., prevention vs. Detection). Moreover, the effects of UIC on attitudes could only be explained through the hypothesized underlying pathways (i.e., via sense of control, attention, and elaboration).

Conclusion  The opportunity to self-tailor both the content and mode of online health information positively strengthens users’ attitudes explained via the underlying mechanisms of sense of control, attention, and elaboration. While the results did not differ for detection versus prevention behaviors, they demonstrate that UIC can facilitate central route processing via sense of control for both types of health behavior information. The study highlights the importance of taking both users’ informational needs (i.e., by content tailoring) and learning preferences (i.e., by mode tailoring) into account when developing persuasive webpages in practice, such as for webpages about the coronavirus health behavior measures.

Predictors of contact tracing app adoption in the Netherlands: integrating the UTAUT, HBM and contextual factors

Nadine Elisa van der Waal, Jan de Wit, Nadine Bol and Nynke van der Laan

With the rapid spread of COVID-19, contact tracing apps (ctas) have been introduced as a means to identify and isolate possible infected cases. Since the adoption rate determines the effectiveness of ctas, it is important to examine what factors could contribute to a higher CTA uptake. We examined three types of factors, i.e., technology-related factors (derived from the Unified Theory of Acceptance and Use of Technology (UTAUT)), health-related factors (derived from the Health Belief Model (HBM)), and context-specific factors (related to the COVID-19 pandemic). Ctas distinguish themselves from most (health) apps, as the usage is passive (i.e., not actively used on a daily basis). This research contributes to the current literature by investigating whether UTAUT can predict app adoption of passive technologies. Furthermore, the HBM has never been adopted to predict preventive behaviour for other people’s health, which is characteristic for the COVID-19 situation. The overall aim of this study is to 1) assess whether extension of the UTAUT with the HBM and context-related factors leads to a better-predictive model, and 2) to identify predictors of app adoption.

A survey was administered among a large, representative sample of the Dutch population (N = 1865). The data were gathered 1.5 week after the launch of the Dutch COVID-19 CTA (i.e., the coronamelder). For data analysis, one hierarchical logistic regression analysis was performed, in which four models were compared. Each model tested an additional group of variables: 1) baseline only (demographics); 2) UTAUT; 3) HBM; and 4) context-related variables. When comparing these models, model 4 performed significantly better than model 1, model 2 and model 3, which was assessed by the likelihood ratio test (p < .001). The main findings of model 4 are discussed.
All UTAUT variables (i.e., performance expectancy, effort expectancy, social influence, facilitating conditions) significantly predicted CTA adoption in the expected directions, with social influence as the strongest predictor (odds ratios ranging from 1.57 to 2.01). Furthermore, almost all HBM variables (i.e., perceived severity, self-efficacy, perceived barriers, perceived benefits) significantly predicted CTA adoption, except for perceived susceptibility (odds ratios ranging from 0.77 to 1.28). Regarding the context-related variables, a stronger belief that the CTA monitors location and personal details led to lower CTA adoption, as well as the degree of fear towards a CTA and its notifications. The belief that installing the CTA contributes to being a good citizen led to higher CTA adoption.

Our findings demonstrate that extending the UTAUT with preventive health-behaviour factors and contextual factors contribute to better understanding of CTA adoption in the Netherlands. Specifically, our analysis revealed an interesting tension between perceived individual risks on the one hand (which hampered uptake of ctas) and expected societal benefits on the other hand (which facilitated uptake of ctas). Such beliefs should be considered simultaneously to nuance our understanding of CTA uptake and could be targeted in health campaigns to battle future pandemics. Further research is needed to examine the main contextual drivers for CTA adoption in order to establish a parsimonious model with high predictive value.

---

**Unexplained versus explained symptoms: the difference is not in patients’ language use. A quantitative analysis of linguistic markers**

**Inge Stortenbeker, Tim Olde Hartman, Anita Kwerreveld, Wyke Stommel, Sandra van Dulmen and Enny Das**

**Background** Patients with medically unexplained symptoms (MUS) are believed to have a specific way of talking about symptoms. Previous qualitative research demonstrated that patients exaggerate the severity of their complaints, present symptoms in a vague or unstructured manner, and use graphic words and negations to express their suffering. Although these analyses provide a fine-grained picture of possible communication patterns, additional quantitative evidence is needed to better understand distinguishing features of MUS consultations compared to consultations where patients have medically explained symptoms (MES). With this study, we aimed to capture and systematically compare relevant linguistic markers in patients’ symptom presentation during MUS and MES general practice (GP) consultations.

**Method** We quantitatively analyzed language use of patients in naturalistic GP consultations, using a codebook that described key linguistic elements in patients’ symptom presentation. We based our selection of linguistic markers on previous qualitative research and existing prejudices that surround MUS. We double-coded relevant patient utterances that described their biomedical or psychosocial
states. Linguistic markers included negations, language intensity, grammatical subject, subjectivity marker and concreteness. We further coded the valence and reference to mental or physical states of each utterance, and we explored the role of consultation phase in language use. Data were collected in 20 Dutch GP practices in 2015 in the context of the “CATMUS” project (see Houwen et al., 2017). We compared language use of 41 MUS consultations with 41 MES consultations. The data were analyzed using binary random intercepts models.

**Results**  
We selected and coded 2752 relevant utterances. Patients with MUS less often used diminishers compared to patients with MES, but this main effect disappeared when consultation phase was included as another predictor of diminishers. For all the other linguistic variables, we did not observe any variation in language use based on the type of symptoms patients presented (MUS or MES). Importantly, an utterance’s valence or reference to physical or mental state did predict the use of linguistic elements. For instance, negative utterances less often contained negations and diminishers as compared to positive utterances, and utterances referring to mental states more often contained subjectivity markers as compared to references to biomedical states.

**Discussion**  
Patients appear to systematically vary their language use based on an utterance’s valence or reference to body or mental states. This difference in language use may reflect the institutional setting of general practice consultations during which it is accepted to emphasize negative experiences (“this terrible fatigue”), while describing positive states more tentatively (“a little better”) or euphemistically (“it is not that bad”). Contrary to our expectations, we did not observe any difference in their patients’ language use in consultations about MUS compared to MES. These results underline the need for quantitative evidence in addition to fine-grained qualitative observations in medical interactions. Current ideas about patient communication may be based on stigmatized perceptions of how they would communicate, rather than actual differences in their language use.

Patient-centered development: online intervention based on Acceptance and Commitment Therapy for improving quality of life in cancer survivors with chronic chemotherapy-induced neuropathic pain

Daniëlle L. Van de Graaf, Floortje Mols, Tom Smeets and Hester R. Trompetter

**Introduction**  
As the number of cancer survivors continues to grow, long-term side effects of cancer and its treatment become more important. On average, 30% of adult cancer survivors suffer from chronic chemotherapy-induced peripheral neuropathy (CIPN) (i.e., lasts ≥6 months after completion of chemotherapy). It is becoming one of the most common long-term side effects for cancer survivors. Especially painful chronic CIPN is related to lower quality of life (qol). Unfortunately, treatment options to remove CIPN are limited. Cognitive behavioral interventions, such as Acceptance & Commitment Therapy (ACT), are increasingly used to improved qol and daily limitations. ACT helps patients to shift focus towards the performance of personally valuable activities by increasing pain acceptance and has been shown to be effective for other forms of chronic pain. The aim of this study was to develop an online ACT intervention to improve qol in cancer survivors with painful chronic CIPN. Given the Technology Acceptance Model and Task Technology Fit model, a further aim was to match the user,
task, and technology when designing the intervention, wherefore a patient-centered design process has been used. In the long term, this will likely result in higher adherence and effectiveness.

Methods Using an iterative design process, the intervention has been developed with several stakeholders. Interviews to examine patient needs and requirements were conducted with patients (N=12), healthcare professionals (e.g., oncologists and psychologists) (N=8), and ehealth experts (N=4). It concerned a diverse group of patients, including males (N=4) and females (N=8), from a broad age range (25-77 years) and varying cancer diagnoses, treatments, and flexibility (i.e., the expected working mechanisms of intervention). Thematic Analysis was used for analyzing interviews. Content was written by two experts in ACT and was based on the Psychological Flexibility model. Stakeholders were involved in usability testing relating layout and information. To assure privacy and security issues, we collaborated with a well-regarded, experienced ehealth platform in psycho-oncology.

Findings 10 themes were identified in patient and expert interviews, which have been converted into concrete tips for designing the intervention. Most important was that patients appreciated and agreed with the elements of ACT, had varying guidance needs, and wanted to have autonomy (e.g., moment and duration of use). Additionally, it was important to include the context of cancer (i.e., naming ‘cancer’, acknowledging comorbidities that the intervention can also help with, acknowledging they have had a life-threatening disease). Regarding the design of the intervention, patients preferred a user-friendly and accessible intervention. This also emerged in the expert interviews. Personas were created to visualize fictional representations of patients.

Conclusion This study showed how a patient-centered design process can be used. In addition, theory-driven content, namely ACT, was used. This resulted in an online ACT intervention that is designed especially for cancer survivors with painful chronic CIPN, which consists of 6 session that contain all ACT processes.

Patient values in discussions about potential participation in phase I clinical cancer trials: a qualitative analysis

Liza van Lent, Mirte van der Ham, Maja de Jonge, Eelke Gort, Marjolein van Mil, Carin van der Rijt, Jelle van Gurp and Julia van Weert

Background When standard treatment options are not available (anymore), patients with advanced cancer can face the complex decision whether or not to participate in phase I clinical trials (i.e. Trials on experimental treatments for which no evidence is available yet). In the decision-making process for participating in such trials, discussing patient values and preferences is essential, especially because evidence on the effectiveness is not available yet. However, previous research indicated that, due to the complexity of the trials, the discussion on patient values is limited. To gain more insight into such discussions of values, we aimed to answer: Which patient values are discussed, and how, during consultations about potential participation in phase I clinical trials?

Methods From February 18, 2019 up to December 18, 2020, 177 video and/or audio recordings of oncologist-patient consultations were collected in three hospitals with major early phase clinical
research units. Patients were called before their consultation to ask for first interest and preliminary consent for participation in this study, written informed consent was signed and collected immediately before the consultation. Two independent coders thematically analysed the transcripts of a selection of consultations from all oncologists (n=9). Steps of continuous evaluation and revision were repeated until data saturation was reached after 18 recordings (i.e. Two per oncologist).

Findings Several values were found to be mentioned or discussed during the consultations: altruism, autonomy, accepting one’s fate, hope, humanity, corporeality, perseverance, quality or quantity of life, risk tolerance, and social adherence. Most of these values were found in short, implicit expressions of patients, for instance in response to the information from the oncologist. Oncologists occasionally tried to explicitly ask patients what (values) they considered important in their lives. Often, oncologists described two ‘opposite’ examples for patients who accepted or declined trial participation based on different values, and then asked patients to think about it at home. Patients rarely spontaneously indicated how their personal values related to those the oncologist described.

Conclusion Nowadays, the importance of incorporating patient values in patient-physician communication has been recognized worldwide. This analysis has indicated that patients regularly (shortly) express diverse values that are important to them, but these are rarely discussed in further detail. Based on our findings, a preparatory Online Value Clarification Tool (onvact) has been developed that may support patients in discussing their values. As the onvact aims to assist patients in clarifying their values around their decision, we expect that the sharing of values between patients and oncologists becomes more extensive and/or explicit after implementation of the tool. We are currently assessing how the implementation of the onvact is reflected in the discussion of patient values during consultations about potential participation in phase I clinical trials. The onvact and pilot-findings will be available upon the conference.

The third party in shared decision making. The role of extra participants in discussions between health professionals and patients

Lotte van Poppel and Roosmaryn Pilgram

Introduction In medical consultations, patients often bring along a companion, such as a partner or family member (Bracher et al., 2020). The presence of a companion is likely to affect the way in which the consultation proceeds, especially the decision making process. In the past decades, shared decision-making (SDM) has increasingly become the ideal decision-making process in consultations (Stiggelbout et al., 2015). The way in which SDM proceeds in consultations with three parties has, nonetheless, so far received little attention. Yet, decision-making in a triadic consultation could be much more complex (e.g. Laidsaar-Powell, 2013). Moreover, the inherent argumentative dimension of SDM, reflected in the weighing and discussing of options, could make the decision-making even more complex, as the third party can adopt a stance opposite the healthcare professional or even opposite the patient (Coe & Prendergast, 1985; Huber et al., 2016). In order to gain more insight into the course of SDM with three parties, this exploratory study examines the influence third parties can have on the medical decision-
making process. To what extent can a third party contribute to SDM in medical consultation? We limit ourselves here to informal companions in face-to-face interactions.

**Method** Based on a literature review, we describe which roles a third party can fulfil in a consultation. We subsequently elucidate the argumentative dimension of SDM, using the pragma-dialectical argumentation theory (van Eemeren & Grootendorst, 1992). From this perspective, consultations involving argumentation can be described as argumentative discussions. Based on this framework, the roles that the parties can fulfil in a consultation are translated into roles within a discussion. Finally, we use a selection of cases from a corpus of argumentative consultations to illustrate different discussion situations with different decision-making outcomes.

**Findings** This study shows that, from an argumentation-theoretical perspective, twelve complex discussion situations could arise from the presence of three parties in consultations. The discussion situation depends on the nature of the disagreement, possible coalition building between parties, and the roles that the parties fulfil. In a number of discussion situations, the third party can play an active role and thus take part in the decision making process itself. All three parties could additionally invite others to participate in the discussion (for instance, by asking for their opinion) or suggest that a coalition has been formed (for instance, by using inclusive ‘we’).

**Conclusion** This study shows that SDM can, on the one hand, be enhanced if a third party suggests that a coalition exists, as the companion could thereby support the patient in the decision making process. On the other hand, this could also hinder the decision making process if the third party (consciously or unconsciously) unjustifiably speaks on behalf of the patient. In a similar vein, a third party could contribute in a more constructive or less constructive manner to the decision-making process by basing standpoints or arguments on their own (supposed) expertise. All in all, this study lays bare the communicative complexities that can occur due to extra participants in consultations.

---

**PARALLEL SESSION 6 | FRIDAY 5 NOVEMBER, 9.00 – 10.00 CET**

**Blue Room (Room 3) | WiP: COVID**

Willingness of young people in Slovenia to vaccinate against COVID-19: How should public health authorities address them to reduce their vaccine hesitancy?

*Tanja Kamin and Sara Atanasova*

**Introduction** Vaccination against COVID-19 is at the moment the most promising measure to achieve community protection against COVID-19 pandemic. Yet, in order to achieve herd immunity, a high percentage of people should be vaccinated. Several studies found decreased intention to get vaccinated against COVID-19 particularly among younger people (Sherman et al, 2021). In Slovenia the most hesitant against COVID-19 vaccination are those younger than 37 (Valicon, 2021) and the lowest levels of vaccinated individuals with both doses are in the age groups of 18-24 years (8.8%) and 25-30 years
Young people are predominantly the ones who question “the effectiveness of the recommended infection control measures” and believe that pandemic outbreaks cannot be controlled (Morrison & Yardley, 2009). Another study (Kamin et al., 2020) suggests that younger people are aware of the need for the recommended protective measures (cognitive level), yet they are more affectively burdened by them (affective level). Taking account only of cognitive level (perception of the virus, illness and of the risk) is insufficient to effectively predict one’s acceptance of vaccination against COVID-19. Accordingly, cognitive, affective and existent behavioural level should be taken into account when planning, communicating and exercising measures, including vaccination against COVID-19.

The main aim of this paper is to integrate constructs of two health behavior theories (health belief model (HBM) and theory of planned behavior (TPB)) in order to identify socio-psychological factors that influence Slovene youth’s COVID-19 vaccination intention. The influence of the main constructs on vaccination intention will be controlled by several cognitive, affective and behavioural contextual factors (e.g. Trust in science, vaccine hesitancy, health status, previous vaccinations) and demographic characteristics of the studied population.

Methods Data collection will be conducted by using an online survey panel jazvem among Slovene youth aged between 15 and 30 years in summer 2021. Online survey panel will be administered by data consumers company Valicon. Its jazvem online survey panel database is a quasi-representative sample of the Slovene population. The online survey includes questions related to HBM and TPB dimensions, health-related questions, control variables and sociodemographic questions. Data will be analysed with univariate and multivariate analyses.

Findings Data collection process is still in progress and at this point we are not able to report on the main findings. However, based on the findings of previous studies among adult population (Petravić et al., 2021) and HBM and TPB theories (Shmueli, 2021) we expect that respondents who will report higher levels of perceived susceptibility, severity, perceived benefits and lower levels of perceived barriers of Covid-19 vaccination (according to HBM) will more likely receive Covid-19 vaccination. According to TPB, higher levels of self-efficacy and subjective norms will be the main predictors of youth Covid-19 vaccination intention.

Conclusion Motivated to overcome COVID-19 vaccine hesitancy among Slovene youth, we aim to detect, diagnose and develop recommendations for shaping tailored health communication interventions. An in-depth understanding of the root causes of COVID-19 vaccine hesitancy among young people will allow public health authorities to better influence vaccine-hesitant views.

A chatbot as an intervention to foster public engagement with the COVID-19 vaccines

Karolien Poels, Toni Claessens, Jeska Buhmann, Maxime De Bruyn, Heidi Vandebosch, Pierre Van Damme and Walter Daelemans

A globally implemented vaccination program is seen as the most important long-term strategy to combat the COVID-19 pandemic. Parallel to the approval of the COVID-19 vaccines and the rollout of the vaccination programs worldwide, there is another hurdle to take: vaccine hesitancy, referring to the
delay in acceptance or refusal of vaccination despite availability of vaccination services (Larson et al., 2014). To overcome vaccine hesitancy, academics and public health experts, have called for additional efforts to actively engage diverse stakeholders and communities in COVID-19 vaccination and to provide open and transparent platforms for the public to voice their concerns and to provide access to reliable and understandable sources. Now that the vaccination programs are in full force, it is of crucial importance that governments have appropriate communication strategies at their disposal that can quickly address questions and concerns voiced by the public about the COVID-19 vaccines and the vaccination program. Using a chatbot could be promising to this end. A recent study showed that interacting with a chatbot for a few minutes had a positive impact on attitudes towards the COVID-19 vaccines and intentions to get vaccinated (Altay et al., 2021). Although very promising, the chatbot discussed used in this study was still very static and user experience was not considered. From studies on chatbots in other domains, we know it is crucial to consider user experience, such as assessing perceived interactivity, helpfulness, and usefulness (Zarouali, Van den Broeck, Walrave & Poels, 2018).

Moreover, with the concerns around the vaccines evolving and changing daily in unpredictable ways, a chatbot needs to be ‘fed’ with the most recent information on a very regular basis. An interdisciplinary team at the University of Antwerp developed a chatbot in Dutch for the COVID-19 vaccines and the related vaccination program in Flanders and Belgium (see www.vaccinchat.be with chatbot Vaxy, in Dutch). We performed user tests focusing on design and conversational features that are informed by the latest scientific insights on human-chatbot interactions. We tested whether a conversation with the chatbot was, next to informative, also engaging and whether the conversation with the chatbot was related to COVID-19 vaccination attitudes and intentions. Results from an online user test (n=200) will be available at the time of the conference.

The use of digital posters in health communication during COVID-19 pandemic case: Macedonia

Marijana Markovikj, Eleonora Serafimovska and Tea Koneska Vasilevska

Introduction The current COVID-19 pandemic becomes a public health crisis unknown to modern society. COVID-19, besides human suffering, evolved expansion of information in communication ecosystem. The communication environment becomes saturated with truths, half-truths, lies, verified and unverified information. An overwhelming amount of information makes people confused and anxious. Like never before, humanity has faced the need for true, verified and critical messages. In a time of expansion of unknown disease, it becomes necessary to quickly and efficiently distribute verified information. The most effective way for message distribution so far is visual communication; visually shaped messages have emerged as instrument for information dissemination. In health communication, posters are used as effective way to spread information to large audience and to make influence on behavior. Posters are combination of words and images into a figure which communicate with wider audience and have influence on understanding and memorizing messages. According to the communication–persuasion model, public health communication using mass media is more effective than other health communication models that are focused on small, at-risk populations. This model is particularly effective for wider public health issues, as recent pandemic with COVID-19 is.
Methods

The focus of this research interest is on the analysis of digital posters promoted by domestic official institutions – Ministry of Health, as when faced with global health danger, citizens rely on official sources.

Researches provided evidence that social media have impact on health knowledge and behavior. In particular interest of this research is the Facebook profile of the Minister of Health. His Facebook profile was the main source of information regarding latest information on disease prevention, number of infected and deaths, as well as the latest measures.

The method of content analysis will be used, where a unit of observation are digital posters posted on the Facebook profile of the Minister of Health. The unit of analyze are: images and text. The content analysis is based on deductive coding as defined categories are created based on previous surveys. Coding sheet consists following categories: general indicators (time of posting, who produced it, which population is targeted etc.), type of poster – is it informative or persuasive; analyses of illustration, analyze of text, linguistic analyze (syntax, semantics), semiotic analysis and psychological impact (provoked emotions and motives).

Pilot study will be conducted to check the coding process to detect potentially problems and to obtain intercoder reliability which is necessary criterion for valid research when human coding is employed, as it is case in this research.

Expected findings

It is expected that this research will provide an overview of the structure of the posters that were shared with the citizens by the official institution – Ministry of Health. Then, what was dominant type of posters (educative or persuasive), interconnectedness between visual elements and text and which emotion and motive can be predominantly provoked by the content of the message contained in the poster.

Mis- and Disinformation during Pandemics: Attributions of Causal Responsibility in Turbulent Times

Doreen Reifegerste and Anna Wagner

Information about the causes of infectious diseases play and have played an essential role in pandemic times like during the Black Death, Cholera, the Spanish Flu, Ebola or HIV/AIDS. Such attributions of causal responsibility (i.e., responsibility framing) can affect public opinion and individual health behaviors, as they draw attention to (or away) from certain populations, institutions or entities as being responsible for the problem (e.g., Iyengar, 1989). Throughout the history of pandemics, causal responsibility has intentionally or unintentionally been falsely attributed – be it for the lack of knowledge, for political propaganda or for the purpose of discrimination against social groups. Such mis- and disinformation about these causes can deliberately or accidentally influence not only who is blamed for the disease, but also who is the target of the anger about the consequences of the disease and is potentially stigmatized or mistrusted (mccauley et al., 2013; Thomas et al., 2020). This can be especially problematic, when such (false) attributions undermine trust in (prevention) institutions, decrease the motivation for prevention measures, or even result in aggressive behavior towards this entity. Mis- and
disinformation therefore pose major challenges for health communication in turbulent times. To master these challenges and prepare for future public health crises, we aim to identify historically consistent patterns of (1) the content, (2) the dissemination, and (3) the consequences of mis- and disinformation surrounding pandemics. Starting from a perspective of the recent COVID-19 pandemic, we analyze these dynamics during former pandemics and ask:

(RQ1) What kind of mis- and disinformation about causes of the pandemics were disseminated?
(RQ2) How were these mis- and disinformation disseminated?
(RQ3) What impact do/did these have on public opinions, health behavior, and attitudes towards these entities?

To answer these research questions, we analyzed historical documents and reports of pandemics around the globe and throughout history (i.e., Black Death, Cholera, the Spanish Flu, Ebola, HIV/AIDS, SARS, H1N1, COVID-19). First results indicate, that with regard to RQ1, certain ethnic and religious groups (such as the Jews during the Plague or Latinos during H1N1) but also experts (such as medical doctors during a cholera outbreak in Liverpool in 1832) are specifically susceptible to being depicted as scapegoats (i.e. Victims of mis- and disinformation about causal attributions). For RQ2, we see that mis- and disinformation were transmitted via similar communication channels as the valid information.

Although dis- and misinformation spread more in interpersonal channels and, more recently, social media, there have also been cases (for instance with HIV/AIDS) where the governmental sources intentionally used official mass media. With regard to RQ3, we see that mis- and disinformation can lead to denial or omission of prevention measures (e.g., in the Ebola or SARS pandemic). One implication of such a historical perspective was already drawn by the WHO, who refused to name the COVID-19 mutations by country (to prevent stigmatization), but instead has given them consecutive letters. For successful prebunking and debunking strategies, further implications to combat mis- and disinformation surrounding pandemics can be drawn.

PARALLEL SESSION 7 | FRIDAY 5 NOVEMBER, 10.00 – 11.00 CET

Red Room (Room 1) | COVID Communication: Vaccination

Evaluation of a text-based debunking intervention for countering misinformation on COVID-19 mrna vaccines

Philipp Schmid and Cornelia Betsch

Introduction Debunking fake news is an effective approach to mitigate the impact of misinformation on individuals’ judgements and health decision-making.
However, practitioners often struggle to design debunking interventions because of missing evidence-based practical guidance and fear of backfire-effects. A recent expert review entitled ‘Debunking Handbook2020’ provides practical guidance on how to design debunking texts that take the cognitive architecture of the receiver into account and minimize the likelihood of backfire-effects. In this study we aimed to test the effectiveness of a text-based debunking intervention that follows the handbooks guidance and aims at countering the misinformation that ‘COVID-19 mrna vaccines can alter human DNA’.

**Method**

The study consists of two preregistered online experiments (N = 2,443). In Experiment 1 we tested the effect of a text-based debunking intervention on individuals’ reliability judgements of fake-news headlines compared to an informational text. Participants of Experiment 1 rated the reliability immediately after the debunking and after a two-month delay to test the long-term effectiveness of debunking and to detect a potential familiarity backfire-effect. Participants of Experiment 2 read a misleading social media post after the debunking intervention. Thus, Experiment 2 tested whether the debunking text can also serve as an inoculation against misleading persuasive attempts. Furthermore, we measured individuals’ confidence in mrna vaccines and their intention to vaccinate as additional dependent variables and analysed whether characteristics of the receiver moderate the effectiveness of the debunking (Experiment 1: religiosity, Experiment 2: spirituality).

**Findings**

Participants in the debunking condition in Experiment 1 judged the fake news about human DNA as less reliable as participants in the control condition immediately after receiving the debunking text, $B = -.42$, $p < .001$. We did not observe any difference between groups after the two-month delay, which was due to a decrease of perceived reliability of the fake news in the control group rather than a backfire effect within the debunking group. However, we found an unintended effect as individuals in the debunking group rated the fake news that ‘mrna vaccines cause no side effect at all’ as more reliable than the control, $B = .23$, $p = .003$. After adding an explanation about potential side-effects to the debunking text in Experiment 2, we found no evidence of this unintended effect.

Moreover, Experiment 2 reveals that the debunking text mitigated the impact of a misleading social media post on individual’s reliability judgements of fake news, $B = -.18$, $p = .026$. We found no evidence that the debunking impacted individuals’ confidence in the mrna vaccine or the intention to get vaccinated. Moreover, we found no evidence of moderator effects of religiosity or spirituality.

**Conclusion**

Debunking and prebunking texts that adhere to the guidelines of the ‘Debunking Handbook2020’ can reduce the perceived reliability of Covid-19 fake news. In addition, we found no evidence of backfire-effects when using debunking texts to correct fake news. However, the observed and neutralized unintended effect underlines the importance of communicating the existence of potential side-effects following vaccination when aiming to support an informed decision-making with debunking.
Communicating about vaccines in a complex information environment: Exploring the influence of attitudes, organisational credibility, and vaccination information before and after COVID-19

Audra Diers-Lawson

Introduction The public are not simply pro or anti vaccine. There is a full spectrum of attitudes about vaccination that affects vaccination behaviours. While complete anti-vaccination attitudes represent a small proportion of the population, vaccine hesitancy encompasses a meaningful proportion of the British population. For example, on 7 July, 2020 a UK-based poll demonstrated 30% of people are unlikely to get a COVID-19 vaccination (Barr, 2020). Despite widespread vaccination uptake, there remain critical populations who may choose not to be vaccinated, like the Black, Asian, and Middle Eastern (BAME) communities.

However, the UK has a vaccination problem beyond COVID-19. In 2019 it lost its ‘measles free’ status as the number of vaccinations reduced, causing pockets of measles outbreaks (New Scientist, 2019). Additionally, inequalities in vaccination across the UK based on socioeconomics, gender, ethnicity and religion creates risk to any vaccination success (NHS Digital, 2020; PHE, 2020) – an issue exacerbated by the disproportionate impact of COVID-19 on some of these groups.

Existing Research Summary Research on UK vaccination attitudes is often descriptive focusing on trends in vaccination decline (Adekola, 2019), is England centric (Edelstein et al., 2020), and in the last two years have been dominated by social media analysis (Schalkwyk, et al, 2020). However, some studies have explored factors like trust in experts, especially healthcare professionals (RSPH, 2019; Stecula, et al., 2020), political ideology (Pennycook, et al., 2020), and vaccine confidence (Hammond, 2020) especially likely to affect Covid-19 vaccination uptake. Yet, there is little UK-based research connecting these factors cohesively.

Previous research finds that attitudes of organisations mediate the relationships between people’s attitudes and how they interpret information (see, e.g., Diers-Lawson, 2020).

Methods in Brief An experiment was designed to introduce participants to information for and against vaccines taken from the NHS and an anti-vaccination organisation. Data were collected in February, 2020 – before the COVID-19 outbreak began to affect the UK and then again in May, 2021 after the introduction of the vaccination and broad uptake of it in a repeated measures design.

Results and Discussion At present data are still being collected on the post-COVID-19 collection; however, preliminary analysis of the pre-COVID-19 collection suggest critical differences with implications to campaign development for people who are already pro-vaccine and those who are vaccine hesitant or anti-vaccine based on information source, the importance of personal power or influence over their own circumstances, and previous vaccination experience.

However, no matter the disposition to vaccines, participants are able to identify the most likely source of the information, even when identifying credit is removed. In fact, when asked to rank the likely sources correctly identify the sources, even when multiple sources (e.g., online influencers, friends and family, and the media) are added in. Moreover, the reputation of the organisation communicating is inherently tied to evaluations of the credibility of the information presented.
The relationship between vaccines media coverage and uptake rates: learning from COVID-19 pre-pandemic to tackle vaccine hesitancy

Daniel Catalan-Matamoros, Andrea Langbecker and Carmen Peñafiel-Saiz

Background Given the present COVID-19 epidemic, vaccination is considered the most effective strategy to tackle the spread of the virus. In the pre-pandemic period, Europe had the largest rates of vaccination hesitancy in the World. Despite the fact that the effectiveness of vaccination programs has been thoroughly proved and supported by the whole scientific community, eleven European nations had to establish mandatory childhood vaccination programs during the last decade. Some key reasons were a lack of knowledge and mis/disinformation about vaccines. Despite this, the media communication is an effective way for spreading vaccine-related information. Therefore, the influence of the media on vaccination uptake was investigated.

Objective The aim of this study was to explore whether there is a relationship between childhood vaccination rates in Spain and vaccine-related coverage in the print media during the pre-pandemic period.

Methods A content analysis of vaccine coverage in newspapers was carried out during five years (2012 - 2017). National vaccination rates, article publication dates, tone, and major themes of the articles were the study variables. A correlation analysis was conducted to explore if there was any relationship between media coverage and vaccination uptake among children.

Results During the study period, while vaccination media coverage with positive and neutral tones significantly increased (p < .001), the number of articles with a negative tone remained unchanged (p = .306). We found that negative-tone media coverage about vaccines had a significant and negative impact on children’s vaccine uptake through a significant and inverse correlation (r = −.771, p < .05). The most frequent themes were about the development of the Ebola vaccine, and the chickenpox and meningitis vaccine crises.

Conclusions In the context of the current COVID-19 pandemic, our findings contribute to a better understanding of the role of the media in vaccination efforts and imply that the media should be considered a key player during vaccination efforts. The study emphasizes the media’s vital educational role in public health.

Mapping vaccine readiness and testing effective communication strategies among youngsters (16-25 years) in Belgium.

Toni Claessens, Karolien Poels, Romain Marchant, Heidi Vandebosch and Pierre Van Damme

A globally implemented vaccination program is seen as the most important long-term strategy to combat the COVID-19 crisis. Parallel to the global race for a safe and effective COVID-19 vaccine, governments face another hurdle: vaccine hesitancy, referring to the delay in acceptance or refusal of vaccination despite availability of vaccination services (macdonald, 2015). In 2019, the WHO already
identified vaccine hesitancy as one of ten main global health threats. With respect to the current COVID-19 vaccination programs, scientists have expressed the urgent need for pro-active action (Schaffer De Roo, Pudalov & Fu, 2020).

Now that in Belgium it is almost the younger population’s turn to get their first vaccine shot, it is crucial to understand what is going on in that target group when it comes to vaccine readiness. Although the risk of them getting ill, ending up in hospital or in the worst case dying of COVID-19 is smaller than it is for people in an older age range, it is still key to reach herd immunity. Therefore, adequately managing and responding to vaccine hesitancy will have a significant impact on public health. This study aims to establish this, by first making sure to get very close to what’s going on in terms of vaccine attitude among youngsters aged 16-25 years old who are currently invited to get a free COVID-19 vaccine in Belgium. Apart from previous experiences with COVID-19 and opinions on vaccination, media channels where youngsters selectively or incidentally come across information on the COVID-19 vaccines as well as the reasons that make them choose for a vaccine or not were first assessed through an online survey (N=1000 Belgian youngsters).

In the second part an online experiment is designed in which potential campaign material is tested on effectiveness in terms of vaccination attitudes and intentions. A 2 (personal vs collective benefits of vaccination) X 2 (gains or loses framed benefits of vaccination) between-subject design will be conducted. Here we take the next step of developing strategies to adequately respond to vaccine hesitancy and make more people have a positive intention when it comes to taking a COVID-19 vaccine. This is work in progress. Results will be available at the time of the conference.

PARALLEL SESSION 7 | FRIDAY 5 NOVEMBER, 10.00 – 11.00 CET

Yellow Room (Room 2) | Alcohol Use (I)

#Drinkstagram? An Experimental Study Disentangling the Impact of Different Types of Alcohol-Related Instagram Posts on Alcohol Cognitions

Sofie Vranken and Kathleen Beullens

Introduction Building on the Prototype Willingness Model (PWM), this study presents the results of two online experiments investigating the impact of exposure to differential alcohol-related social media posts on rational (i.e., attitudes, descriptive and injunctive norms, intentions) and more heuristic alcohol determinants (i.e., prototypes, willingness). Although research has shown that exposure to alcohol references is associated with adolescents’ alcohol-related cognitions and behaviors, this study adds to this line of research in three ways. First, it uses an experimental design. Second, it focuses on alcohol references on Instagram as this platform is currently the most popular one to memorialize alcohol experiences. Lastly, this study is the first to distinguish between different types of alcohol references.
We examine the impact of alcohol posts in which moderate or more extreme alcohol behaviors are shown (study 1) and in which more positive (e.g., friendship) or negative outcomes (e.g., vomiting, black-out) of alcohol are portrayed (study 2). The outcomes under investigation are willingness, intentions to consume alcohol, attitudes, prototype perceptions, descriptive and injunctive norms.

**Method** Two online between-subject experiments were launched. Adolescents (N=390; Mage=15.69; SD=1.31) in the first study were assigned to Instagram stories in which moderate, more extreme forms of drinking or no alcohol was shown. In the second study, adolescents (N=387; Mage=16.06;SD=1.34) were allocated to a condition in which they encountered Instagram stories showing no consequences, positive consequences or negative consequences upon consuming alcohol. These materials were pretested and the experiments were preregistered on OSF. After exposure to the stimulus materials, adolescents filled out a questionnaire containing items related to intentions to consume alcohol, willingness, attitudes, social norms, prototypes and control variables (Instagram and alcohol use). ANCOVA analyses were conducted.

**Results** Experiment 1. The manipulation check indicated that participants perceived moderate posts to consist of moderate behaviors (M=3.00;SD=1.40) and extreme ones to consist of excessive behaviors (M=5.98;SD=.98; F(1,262)=389.06; p<.001). However, no significant differences between individuals exposed to moderate or extreme posts with regard to willingness (F(2,385)=1.65; p>.05), intention (F(2,385)=.24;p>.05), attitudes (F(2,385)=.23;p>.05), descriptive (F(2,385)=2.61;p>.05) and injunctive norms (F(2,385)=.13;p>.05), and prototypes (F(2,385)=.43;p>.05) were found.

Experiment 2. The manipulation check indicated that participants perceived the positive references as positive (M=4.52;SD=1.44) and the negative ones as slightly negative (M=3.00;SD=1.35; F(1,255)=73.52; p<.001). Yet, the results show that the valence of the alcohol post did not influence the willingness (F(2,382)=1.57; p>.05), intentions (F(2,382)=.20,p>.05), attitudes (F(2,382)=.20;p>.05), descriptive norms (F(2,382)=.81; p>.05), injunctive norms (F(2,382)=.23; p>.05), prototypes (F(2,382)=.48; p>.05).

**Discussion** Our study did not reveal that the type of alcohol-related Instagram posts influenced alcohol-related determinants. One potential explanation may lie in the fact that the alcohol posts stemmed from fake peers. According to prior research, the proximity of one’s peers on social media impacts alcohol determinants. Secondly, it is reasonable to assume that the components of the PWM are influenced by repeated exposure to alcohol use over time, rather than short-time exposure. Lastly, the data collection took place during the 2nd lockdown period in xxxcountry. Given that bars and restaurants were closed, self-reports regarding intentions and willingness to consume alcohol may be biased.

---

**Like to Drink: Dynamics of Liking Alcohol Posts and Effects on Alcohol Use**

*Sebastian Kurten, Robyn Vanherle, Kathleen Beullens, Winnie Gebhardt, Bas Van den Putte and Hanneke Hendriks*

**Purpose** Previous research has indicated that emerging adults frequently seem to share alcohol posts on various social media platforms (Beullens & Schepers, 2013). These posts, in turn, can often
count on positive feedback from others in the form of comments or likes (Hendriks, van den Putte, & Gebhardt, 2018). Research further indicates that this type of feedback can be perceived as a sign of implicit peer approval (Boyle, Labrie, Froidevaux, & Witkovic, 2016). Still, little research so far has further looked into the complex dynamics of likes on alcohol posts. Building on Gift-Giving theory (Mauss, 2002), our daily diary study will contribute to the current literature in three ways: First, this study investigates whether social media posts depicting alcohol receive more likes than non-alcohol posts. Second, this study will examine whether gender differences might exist in receiving and giving likes on alcohol posts. Third, we will investigate whether the liking of alcohol posts is associated with young adults’ real-life drinking behavior.

**Method**

271 college students participated in the daily diary study over 21 days. They answered daily questionnaires about their alcohol use and their online activity (posting and liking of alcohol posts) was monitored via an app. First, Exponential Random Graph Models were deployed to predict the probability to receive a like on a post. Second; Generalized Linear Mixed Effect Models were used to estimate the likelihood of a participant to drink alcohol. We controlled for gender, age, and day of the week in the models.

**Results**

The results of this study first indicate that alcohol posts received on average more likes than non-alcohol posts (29 vs. 14 likes). Second, women, who seemed to post more frequently, also received more likes for alcohol posts than men (31 vs. 21 likes). Third, a daily association between the liking of alcohol posts and real-life alcohol consumption was found.

**Conclusion**

The current study contributes to a better understanding of the dynamics of likes on alcohol posts and how these likes, in turn, affect young adults’ actual alcohol use. Two important insights for interventions are proposed: first, the fact that not only the posting of alcohol but also the liking of alcohol posts seems to be gendered shows that future research and preventions should focus more thoroughly on females and their reciprocal reinforcement of alcohol posts. Second, given that liking an alcohol post is associated with real-life drinking behavior, future interventions should try to tackle young adults’ liking behavior, which often occurs unconsciously and rapidly in the moment. More specifically, social media platforms could consider implementing automated warning messages whenever an individual is about to like an alcohol post.

---

**Dynamics of Alcohol Use and Online Display among Adolescents. Investigating Selection Processes, Exposure Effects, and Self-effects**

*Tobias Frey and Thomas Friemel*

**Introduction**

Numerous studies investigated the relationship between exposure to alcohol related content online and alcohol use among adolescents (Curtis et al., 2018). Only recently, scholars addressed processes beyond exposure effects and recognized the role of selective exposure and self-effects (e.g. Geusens, Bigman-Galimore, & Beullens, 2020; Valkenburg, 2017). In this study we advance the latest state of research and apply an actor-oriented network perspective that facilitates the investigation of such dynamics. Building on studies that predict homophily regarding alcohol...
consumption among friends with both selection and influence processes (e.g., Long, Barrett, & Lockhart, 2017), we examine the relation between mutual perception online and offline behaviour among adolescents with the following two research questions. RQ1: How does alcohol related posting behaviour impact online visibility of adolescents among their peers? RQ2: How does alcohol related posting behaviour of individuals and their perceived peers online impact adolescents' alcohol consumption?

**Methods**

We conducted a two-wave network survey among first grade students (N=277, M=15.5; SD=0.66) at a high school in [ANONYMIZATION]. Participants could name up to 10 students of whom they see most frequently online, how they spend their leisure time. In addition, alcohol consumption and related posting behaviour were surveyed. To investigate selection and influence processes, we applied longitudinal network analysis and performed stochastic actor-oriented models for network change (saoms).

**Findings**

Alcohol consumption increased from T1 (never = 31.2%, irregularly = 31.1%, regularly = 36.6%) to T2 (never = 27.8%, irregularly = 31.2%, regularly = 40.1%) and participants at T2 named on average 2.4 fellow students, from whom they see most frequently online, how they spend their leisure time. Saoms were performed and structural as well as actor-relation effects taken into account, to explain both mutual perception online and alcohol consumption at T2. Students reciprocally see each other online and tend to perceive their friends and others from the same gender and school class. Regarding RQ1, we found that students that post content more frequently are more often nominated by others as visible peers. The amount of posted alcohol related content, on the other hand, does not predict visibility. However, the inclusion of an interaction effect demonstrates a selection process: With increasing alcohol consumption, adolescents tend to perceive more peers online that post alcohol related content. In regard to RQ2, the average amount of posted content among perceived others did not predict offline behaviour, thus no evidence for exposure effects were found. However, the amount of individually posted content displaying alcohol is positively related to offline behaviour, indicating a self-effect.

**Conclusion**

Although posting of alcohol related content does not predict visibility among adolescents, the present study found evidence for a selection process. While no exposure effects could be demonstrated, our results indicate a self-effect, entailing that posting of alcohol related content predicts alcohol consumption. These findings demonstrate the complexity of the relationship between alcohol related content online and alcohol use, that could be misunderstood if selection processes, and self-effects were neglected. Implications for future research will be discussed in the presentation.
Responses to Comics in Mental Health Communication on Instagram: Insights from a Quantitative Survey

Isabell Koinig

Increasing public awareness for health issues is often a difficult endeavor. For this reason, scholars have encouraged for the presentation of health information in a more entertaining form. Comics present one “natural and capable” medium of involving individuals more strongly in health-related decision making (Kearns & Kearns 2020), and have a long history with driving children to adopt recommended health behaviors. They are usually characterized by a simple composition and schematic representation, which can aid individual comprehension and evoke positive emotions in recipients (Kearns et al. 2020). In recent years, comics have also increasingly been featured on social media in general and Instagram in particular, where more than 1 billion users worldwide post 500 million stories and images per day (Future Biz, 2020). In terms of topics, health and health-related aspects rank amongst the most prominently discussed areas on Instagram. During COVID-19, increasing mental health incidents have been reported throughout the world, and individuals have increasingly started to turn to social media for mental health support (Naslund et al. 2020).

The present contribution seeks to investigate how Instagram helps in fighting the stigmatization associated with mental health issues. The proposed study will be based on a quantitative survey. The focus of the analysis will thereby be put on the affordances of social media content presentation (as compared to traditional forms of media), which can involve recipients more actively in health issues and fight the stigmatization associated with mental health. To this end, we present Instagram users’ responses to three content formats (motivational quote, comics or influencer posts), which award them different forms of support (emotional, informational, or network support; Chang, 2009). In order to test how different content (e.g. Comics) is evaluated by Instagram users, a quantitative online survey was conducted in April 2021. In total, 532 respondents between 16 and 34 years of age (M= 23.9 years) participated in the survey. The target group’s average age and gender distribution correspond with that of the average Instagram user (Statista 2021).

As Instagram is based predominantly on visuals, respondents’ affective evaluations of content will be inquired. Responses varied, depending on which format was used. The content that received the most favorable evaluations was, interestingly, either the motivational quote (emotional support) or the influencer post (network support). Informational support – as offered by the comic – was seen as secondary. Preference of content suggests that individuals seek out content that boosts their esteem or content with a “human touch”. Nonetheless, a more thorough investigation into what influences individuals’ content selection is needed, in order to offer implications on how to drive the acceptance of comics as part of entertainment education.
Systematic review of determinants and consequences of bystander interventions in online hate and cyberbullying among adults

Konrad Rudnicki, Heidi Vandebosch and Karolien Poels

Despite the substantial amount of literature concerning adolescent bystanders of online hate and cyberbullying, relatively little attention has been devoted to studying the same issue in adults. Similarly, the determinants of the effectiveness of different messages to support the victims or counter hate have also been understudied. This is a problem, since several countries have already officially declared bullying and hate as a public health concern. The ongoing COVID-19 pandemic has only exacerbated this problem by moving a significant portion of people’s life to online environment. By making the online space a larger portion of many people’s lives, it gave more weight to any violence that these people may experience there. The existing pieces of empirical research on this topic remain scattered and no systematic review was performed to check if there are any patterns with regard to determinants and consequences of adult bystanders intervening against hate online. To fill these gaps we performed a literature review in accordance with the guidelines of the Cochrane Collaboration Handbook for Systematic Reviews. The results of the literature search and analysis yielded three important findings.

First, personal and contextual factors determining bystander action in adults largely overlap with the factors identified in adolescent populations: empathy, prior victimization, feelings of responsibility, severity, social norms, relationship with the victim and number of bystanders. Second, personal factors promoting bystander action seem to be interconnected via empathy and social norms, both of which can be facilitated through psycho-education. Third, there is a critical lack of studies on the effectiveness of different bystander interventions. Therefore, the main result of our analysis with regard to the effectiveness of bystander interventions is a dire call to action for scientific research on the issue, since evidence-based policymaking and psycho-education cannot proceed without evidence. This is especially worrying, since the international community recognizes online hate as a public health concern and recommends action. The Security Council of the United Nations has issued a resolution (UN Security Council Resolution 2357-2017) in which it highlights the necessity of countering online hate speech. It is possible to do that, since our results with regard to the personal factors influencing bystander action in adults suggest that psycho-education and training programs may have excellent effects if they address the issue in a complex way. Trait empathy and expressions of empathic concern seem to be the most reliable predictor of bystanders taking action against online hate. The intention behind countering online hate and cyberbullying is to reinforce the social norm of civil language in the cyberspace as well as promote dialogue and cooperation. However, that also means that it is important to try preventing online hate from occurring in the first place. It is easier to prevent prejudice from sprouting before it happens rather than deconstructing norms and beliefs that people already have. The best type of bystander intervention is one that never had to happen, because the people who would want to harass others stop themselves in the fear of being subjected to social ostracism.

Linn Julia Temmann, Doreen Reifegerste, Annemarie Wiedicke and Sebastian Scherr

Introduction Responsibility frames are media frames presenting an issue “in such a way as to attribute responsibility for its cause or solution to either the government or to an individual or group” (Semetko & Valkenburg, 2000, p. 96). In media coverage about health, responsibility is disproportionately attributed to individuals (Gounder & Ameer, 2018; Kim & Willis, 2007; Stefanik-Sidener, 2013; Zhang et al., 2016), which raises several issues. First, individual causal attributions are closely related to stigmatization of various health issues, e.g., diabetes, psychological diseases, and high body weight (Browne et al., 2013; Corrigan et al., 2003; Frederick et al., 2016). Second, it is possible that relevant causes and treatment options at the social and societal level (see social-ecological models of health, Sallis et al., 2008) might be overlooked when individual responsibility is overly emphasized. Moreover, several experiments have shown that the reception of individual responsibility frames inhibits intentions of social and political support (Coleman et al., 2011; Gollust & Lynch, 2011; Sun et al., 2016).

Framing scholars assert that through media exposure, recipients’ cognitive frames are gradually changing in the direction of media frames (transformation effect, Scheufele, 2004, p. 40). For responsibility frames, this would mean that individual responsibility frames enhance individual attributions, and frames emphasizing social and societal responsibility increase these attributions, respectively. However, previous studies have yielded unclear results on attributions (Authors, 2021) and do not account for baseline attributions, making it impossible to draw any conclusions about potential transformation effects.

Methods To close these gaps, we conducted the present study. With an explanatory mixed-methods design (Creswell, 2014) including a representative 2×4 online experiment (N = 1,088) and qualitative interviews (N = 22), we investigated 1) pre-existing attributions and 2) the transformation of attributions through exposure to responsibility frames. Both studies focused on diabetes and depression, which represent highly prevalent non-communicable diseases (Ettman et al., 2020; Saeedi et al., 2019).

Findings MANCOVA results show small significant changes of recipients’ attributions in the direction of media frames, i.e., the individual frame increased individual attributions, while the social network and societal frame enhanced attributions to these levels, respectively (Table 1). Unexpectedly, individual attributions were higher in all experimental groups compared to baseline. The interviews revealed that this might be related to the individual exemplar within the stimulus article (Figures 1 and 2). Instead of stigmatization, however, it was perceived as positive that the person in the stimulus acknowledged her health problem and took care of possible treatments. This indicates that responsibility frames are not the only message element that might transform recipients’ attributions, and that treatment attributions might be less stigmatizing than causal attributions. Moreover, participants attributed significantly more responsibility to individuals with diabetes than with depression at baseline (Figure 3).
Tables and Figures

Table 1
Means of Individual, Social Network and Societal Attributions (Baseline & Posttest)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Responsibility Frame</th>
<th>Baseline</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Individual Attributions</td>
<td></td>
<td>4.50</td>
<td>1.17</td>
</tr>
<tr>
<td>Individual</td>
<td></td>
<td>5.38</td>
<td>1.32</td>
</tr>
<tr>
<td>Social Network</td>
<td></td>
<td>4.80</td>
<td>1.14</td>
</tr>
<tr>
<td>Society</td>
<td></td>
<td>4.74</td>
<td>1.29</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td>4.59</td>
<td>1.19</td>
</tr>
<tr>
<td>Social Network Attributions</td>
<td></td>
<td>4.09</td>
<td>1.16</td>
</tr>
<tr>
<td>Individual</td>
<td></td>
<td>4.25</td>
<td>1.21</td>
</tr>
<tr>
<td>Social Network</td>
<td></td>
<td>4.68</td>
<td>1.20</td>
</tr>
<tr>
<td>Society</td>
<td></td>
<td>4.49</td>
<td>1.19</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td>4.21</td>
<td>1.20</td>
</tr>
<tr>
<td>Societal Attributions</td>
<td></td>
<td>4.09</td>
<td>1.19</td>
</tr>
<tr>
<td>Individual</td>
<td></td>
<td>4.29</td>
<td>1.30</td>
</tr>
<tr>
<td>Social Network</td>
<td></td>
<td>4.50</td>
<td>1.26</td>
</tr>
<tr>
<td>Society</td>
<td></td>
<td>4.85</td>
<td>1.31</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td>4.21</td>
<td>1.31</td>
</tr>
</tbody>
</table>

Notes.

A MANCOVA showed that participants in the individual frame condition had significantly higher individual attributions than participants in all other groups (F(3, 1079) = 42.45, p < .001, \( \eta^2_p = .11 \)). Recipients of the social network frame showed significantly higher social network attributions than participants in the individual and control group, but not as compared to participants in the societal frame group F(3, 1079) = 20.00, p < .001, \( \eta^2_p = .05 \). The societal responsibility frame caused significantly higher societal attributions than all other frames F(3, 1079) = 26.41, p < .001, \( \eta^2_p = .07 \).
Leben mit chronischer Krankheit

„Frau Ludwig hat Diabetes“


Von Alex Winkler

5. Januar 2020, 11:47 Uhr / 19 Kommentare

Christina Ludwig (50) arbeitet als Lehrerin und erzählt über ihr Leben mit Diabetes Typ 2. Foto: Priscilla Du Preez
**Was tun gegen Diabetes?**

Entscheidend für die Bekämpfung von Diabetes ist, dass Betroffene von ihrem sozialen Umfeld unterstützt werden.

Als die wichtigsten Therapiemaßnahmen gelten körperliche Aktivität, gesunde Ernährung und verbesserte Stressbewältigung.

Diese können jedoch nur nachhaltig wirken, wenn Betroffene damit nicht allein gelassen werden.

Der Deutsche Diabetes-Dienst (DDD) nimmt vor allem Familien, Freunde und Kollegen in die Verantwortung, Betroffene bei ihrer Erkrankung zu unterstützen.

---

**Figure 3**

*Differences in Baseline Attributions by Health Issue*

![Diagram](image)

**Notes.**
1 = fully disagree, 7 = fully agree.

$N_{Diabetes} = 546$, $N_{Depression} = 542$.

*Individual attributions: $t(1,069) = 12.72, p < .001$*

*Social network attributions: $t(1,056) = -18.87, p < .001$*

*Societal attributions: $t(1,080) = -10.89, p < .001$*
Conclusion  Our study highlights 1) a significant transformation of recipients’ attributions even after single exposure to responsibility frames, 2) an ambiguous role of individual exemplars and treatment attributions, and 3) issue-specific differences in pre-existing attributions. We are looking forward to discussing further implications for health communication at the conference.

Stigmatization of People with Depression or Burn-out: An Experimental Investigation

**Cosima Nellen, Alexander Röhm, Michéle Möhring and Matthias R. Hastall**

Depression is among the most stigmatized and prevalent mental illnesses, with severe consequences for affected individuals such as limited access to healthcare, housing, or employment (e.g., Angermeyer et al., 2009; Jorm & Reavley, 2013). Depression is often labeled as “burn-out” by lay persons and research shows that this label reduces social stigma, but also reduces recommendations to seek professional help (Bahlmann et al., 2013). Health-related information about a person’s coping with an illness (recovery perspective; c.f. Ralph et al., 2002) as well as factual information related to the illness (e.g., symptoms, prevalence, causes) are considered to be potentially destigmatizing (e.g., mcginty et al., 2015). Since mass media and social media are a major source for such information, the current study examines if the labels “depression” or “burn-out” affect recipients’ perceptions, attitudes, and behavioral intentions towards individuals with a mental illness differently when the illness is portrayed in a comic strip instead of a factual article. Additionally, we test whether (a) exemplar’s sex, (b) recovery perspective, and (c) the provision of factual information moderate the proposed labelling effects on stigma-related outcomes. Hypotheses are derived from exemplification theory (Zillmann, 2002), contact hypothesis (Allport, 1954), and social comparison theory (Festinger, 1954).

In a $2 \times 2 \times 2 \times 2$ online experiment, $N = 1201$ respondents ($M = 28.40$ years; $SD = 11.76; 78.4\%$ female) were presented a comic strip about a person with a mental illness which was manipulated regarding the depicted label of mental illness (depression vs. Burn-out), sex (male vs. Female), recovery perspective (positive vs. Negative), and factual information about the illness (info box vs. No info box). After the stimulus presentation, internalized stigmatizing attitudes, illness perception, perceived treatability of depression or burn-out, and positive behavioral intentions were measured as dependent variables with the attitudes towards mental health problems scale (ATMHP; Gilbert et al., 2007), the illness perception questionnaire (IPQ; Moss-Morris et al., 2002), and the reported and intended behavior scale (RIBS; Evans-Lacko et al., 2011).

Univariate analyses of variance (anovas) showed that the labelling “depression” yielded significantly more stigmatizing attitudes and fewer positive behavioral intentions than the label “burn-out”. However, the presentation of factual information decreased the illness perception and treatability for both, depression and burn-out. Moreover, male recipients indicated a higher illness perception and less internalized stigmatization, but also less positive behavioral intentions towards affected individuals than female recipients.

The results reveal that recipients perceive depression and burn-out differently in terms of stigmatization and illness perception. However, the presentation of factual information did not show destigmatizing
effects but rather led to the illness being perceived as less controllable and treatable. The results are discussed, in particular regarding their implications for destigmatizing mental illnesses, unintended effects of anti-stigma messages, and journalistic depictions of people with depression or burn-out.

**PARALLEL SESSION 8 | FRIDAY 5 NOVEMBER, 11.15 – 12.15 CET**

**Red Room (Room 1) | COVID Communication: Risk Perceptions**

**COVID-19 Risk Perceptions Across Adjacent Regions in the Netherlands and Belgium: A Cross-Sectional Survey**

*Ruben Vromans, Annemiek Linn, Nirvi Maru, Sara Pabian, Emiel Krahmer, Jeanine Guidry Guidry and Nadine Bol*

**Introduction** People’s risk perception of COVID-19 is an important predictor for adopting protective behaviour. However, risk perceptions are subjective by nature, and can be influenced by various factors, such as experiential (e.g., personal experience with a threat or hazard), socio-cultural (e.g., caring about others), cognitive (e.g., knowledge about a threat or hazard), and/or sociodemographic factors (e.g., gender, political orientation). Although risk perceptions, and factors influencing these, vary between countries, less attention has been paid to differences between adjacent regions from neighbouring countries. Here, we asked two questions; (1) to what extent do peoples’ risk perceptions of COVID-19 differ between three adjacent regions in the Netherlands and Belgium? And (2) what factors determine their level of concern in those regions?

**Methods** In the midst of the first-wave of the corona outbreak in Europe (March-April-May 2020), we measured COVID-19 risk perceptions among university students (N=668) in three closely related and connected regions: the (1) central and (2) southern region of the Netherlands, and the (3) Antwerp region of Belgium. Risk perception consisted of three distinct yet related aspects: perceived severity (i.e., people’s beliefs about the seriousness of COVID-19), perceived susceptibility (i.e., people’s beliefs about their chances of experiencing COVID-19) and estimated risk (people’s estimated likelihood of contracting the coronavirus in the upcoming month). Theory-based predictor variables included experiential (i.e., direct and indirect experience), efficacy-related (i.e., personal and collective efficacy), socio-cultural (i.e., trust in situation being handled), cognitive (i.e., knowledge), and demographic factors (i.e., gender).

**Findings** Across all regions, students’ risk perception of COVID-19 were moderate. Despite substantial differences in terms of the number of positive tests and regional measures, risk perceptions of students from the two Dutch regions did not differ. Furthermore, compared to the Dutch regions, students in the Antwerp region believed that the coronavirus was more severe but their perceived susceptibility and estimated risk of contracting the virus were lower. Across all regions, perceived susceptibility and estimated risk of contracting the virus were primarily predicted by personal experience with the virus, whereas perceived severity was predicted by higher levels of personal efficacy.
and lower levels of trust in the government. Moreover, the various factors that explained COVID-19 risk perceptions did so differently across regions. For instance, people who have had indirect experience with COVID-19 and had less confidence in how people handled the situation reported higher risk estimates, but these associations only emerged in the southern region of the Netherlands.

**Conclusion** Our cross-sectional survey showed that COVID-19 risk perceptions are moderate among university students in three adjacent European regions. Compared to the central and southern region of the Netherlands, the Antwerp region showed slightly higher perceptions of severity but lower perceptions of susceptibility and estimated risks. Although some predictors of COVID-19 risk perceptions were consistent across all regions, some predictors were region-specific. Further research is needed on suitable (regional) risk communication strategies for students and young adults to increase their COVID-19 risk perceptions.

Identifying Subgroups at Risk for Non-Adherence to COVID-19 Preventive Measures Based on Risk Perceptions and Media Use: A Latent Profile Analysis

*Nadine Bol, Ruben Vromans, Marloes van Wezel, Julia van Weert and Emiel Krahmer*

**Introduction** The COVID-19 pandemic called for drastic measures to prevent an unmanageable spread of the virus. To develop an effective communication strategy, it is important to know which groups of people are more or less inclined to adhere to particular preventive measures. Based on existing health communication theories (e.g., health belief model), this pre-registered study (https://osf.io/r4fe5/?View_only=67ab47b4cc554971a35e215f030d9f42) seeks to identify groups of people at risk for non-adherence to the COVID-19 preventive measures, based on their risk perceptions and media use.

**Methods** In the midst of the COVID-19 breakout in the Netherlands (May 2020), we asked a representative sample of the Dutch population (N = 1,465) to what extent they adhered to the preventive measures of the National Institute for Public Health and the Environment (e.g., “stay 1.5 metres away from other people”) in the past 7 days (1=‘never’, 5=‘always’). Risk perception was determined by measuring peoples’ perceived severity of the coronavirus and susceptibility of getting the virus. Media use was measured by asking people how often, in an average week, they used different types of media sources (i.e., traditional media, online news, health-related, and social media sources) to receive information about the coronavirus. We applied Latent Profile Analysis to identify subgroups at risk for non-adherence to the COVID-19 preventive measures.

**Results** On average, people followed the corona preventive measures pretty well, perceived the coronavirus to be very severe, but rated their own susceptibility to getting the virus around the midpoint of the scale. Traditional media sources (e.g., TV news) were most often used to receive information about the coronavirus. We identified three profiles: average citizens (80%), unconfident citizens (12%), and involved citizens (8%). Although average citizens often and involved citizens almost always adhered to the preventive measures and reported high levels of perceived risk, the involved citizens were characterized by a significantly higher media use. The unconfident citizens partially adhered to the
preventive measures, and were characterized by lower risk perceptions and less frequent media use compared to the other two groups.

Conclusions  Adherence to preventive measures is crucial during the COVID-19 pandemic. However, merely communicating these measures does not imply that all people will follow all measures. The identification of different subgroups paves the way for developing tailored risk communication strategies for preventive measures for both this and future pandemic health crises.

Dancing on thin ice: the importance of respectful, coordinated and trustworthy health communication during the pandemic

Tanja Kamin and Nina Perger

Introduction  One of the key elements of a pandemic control strategy concerns public health communication (Antwi-Boasiako and Nyarkoh, 2020). This is supposed to improve awareness of the disease and protective measures, and to enable coordinated action to manage the spread of infection and consequences of the epidemic (Henry, 2018; Ataguba and Ataguba, 2020). Because pandemics can only be won with the cooperation of all people (Choi and Powers, 2020), the success of the public health communication strategy depends on behaviour change, namely, people behaving according to recommended or prescribed protective measures (Nan and Thompson, 2021). A complex web of cognitive, affective and behavioural responses to protective measures (Kamin et al., 2021) has important implications for communication strategies aimed at promoting behaviour change and/or maintenance in relation to COVID-19 protective measures, and should be given greater consideration when designing communication strategies to address the pandemic (Williams and Evans, 2014). We will present the results of a study on reception of official (governmentally led) communication about COVID-19-related measures during the first lockdown in Slovenia and expose the main failures of crisis health communication for managing COVID-19 in Slovenia.

Methods  During the third and fourth weeks of the first COVID-19-related lockdown in Slovenia, we conducted in-depth, semi-structured, face-to-face interviews (via online platforms) with 23 women who were living alone at the time of the lockdown. We analysed the collected data using maxqda2020 (VERBI Software, 2019), combining inductive and deductive data analysis approaches.

Findings  We identified three distinct categories of participant responses to COVID-19-related official communication: 1) communication frame, 2) perceived credibility of the communication source and 3) overwhelming risk communication and communicated measures. Analysis of the relationships between the identified categories demonstrates the importance of communicating about the measures in a respectful, trustworthy, sensible, and encouraging manner. There is no excuse for some of the poor communicative approaches taken by the official crisis communication group for managing the pandemic in Slovenia. These approaches included treating the public (citizens of Slovenia) in a way that was perceived as disrespectful; (non)cooperation with experts in a way that was perceived as exclusionary and politicized; and a lack of explanation for introduced measures, which gave the impression that the pandemic was being exploited for political interests. All of these communication mistakes deteriorated
trust in public institutions and could significantly interfere with effective handling of the current and future waves of the pandemic. There were other problematic issues concerning officials’ communication approaches that could have been avoided by following health risk communication protocols and better knowledge of behaviour change theory, including the use of a rhetoric of fear that did not achieve a mobilizing but a paralyzing effect.

**Conclusion** The findings reveal crucial communication failures that affected trust in official communicators and failed to motivate and encourage respondents to behave in accordance with recommended and prescribed protective measures.

**How social and news media relate to health-related risk perceptions: An ecological momentary assessment**

*Sebastian Kurten, Ann Rousseau and Robyn Vanherle*

**Introduction** The emergence and spread of viral diseases such as Covid-19 challenges governments to seek for ways to reduce virus transmission and protect health care systems from being overwhelmed. One way to decrease virus transmission and prevent health care systems to collapse is by setting rules that assist in inhibiting virus spread (e.g., social distancing). However, whether or not rules are being followed and translated into actual behavior depends on citizens’ willingness to follow government guidelines. Therefore, this study sought to examine factors that may impact young adults’ willingness to get vaccinated and follow social distancing rules. As our theoretical frame, we expanded on the social amplification of risk framework [SARF] which states that individuals’ processing of and behavioral response to risk is shaped by social and cultural factors. Both factors can either heighten or attenuate the extent to which an event is perceived as threatening and elicits preventive behavior. Expanding on the SARF we hypothesized that media coverage of Covid-19 would increase the perceived salience and severity of Covid-19 as a health risk and that higher risk perceptions would motivate willingness to follow Covid-19 measurements. We thereby distinguished between perceived severity and susceptibility, as personal-level risk perception (i.e., susceptibility) may directly trigger preventive behavior, while societal-level risk perception (i.e., severity) may not operate in a direct way. Moreover, relying on the differential impact hypothesis –stating that news media are more likely to influence cognitive risk processing, while entertainment media are more likely to influence the emotional dimension of risk judgements, we hypothesized that social media coverage of Covid-19 would be most strongly related to perceptions of individual susceptibility, while exposure to news media would show the strongest association with perceived severity.

**Method** An online 10-day diary study with early adults (ages 18-25) was conducted between March and April 2021. The study consisted of a pre-survey (assessing baseline levels of (trait)variables), a 10-day diary period, and a post assessment. During the 10-day diary period, each day (20h–21h) participants received a mobile text message reminding them to complete the survey. Participants were instructed to complete the survey before they went to bed. The sample included 208 participants (M = 21.63, SD = 1.15), 90% completed at least seven daily surveys.
Results On the between level, exposure to news-media on Covid-19 was weakly related to perceived severity (\(\tau = .12^{**}\)) and willingness to follow Covid-rules (\(\tau = .06^{*}\)). Perceived severity and susceptibility were positively associated with willingness to follow Covid-rules (\(\tau = .15^{**}\) \(\tau = .27^{**}\)). The relationships with social media were less substantial; Covid-related social media exposure was not related to willingness to follow Covid-rules (\(\tau = .02\)) and weakly related to perceived severity (\(\tau = .09^{**}\)). However, on the within level the average correlation between Covid-news exposure (\(\bar{r} = 0\)) and social media (\(\bar{r} = -.04\)), and willingness to follow Covid-rules vanished. The results disclose a spurious correlation indicating that there might be no causal effect of Covid-media exposure on the willingness to follow rules within respondents.

PARALLEL SESSION 8 | FRIDAY 5 NOVEMBER, 11.15 – 12.15 CET

Yellow Room (Room 2) | Alcohol & health food

The Role of Proximal and Distal Norms in Exposure to Alcohol on Private and Public Social Media Features and Emerging Adults’ Alcohol Use

Robyn Vanherle and Kathleen Beullens

Introduction Previous studies have indicated that exposure to alcohol-related content on Social Network Sites (SNS) increases emerging adults’ alcohol consumption. An important mechanism through which this association seems to occur are social norms. More specifically, building on the social norms theory, research has indicated that alcohol posts play a role in individuals’ perceptions of how often others are drinking (descriptive norms) as well as how approving others are of drinking (injunctive norms). This, in turn, impacts their own drinking. Additionally, these perceived norms seem to be even more influential when the referential others are friends (i.e., proximal norms) instead of peers (i.e., distal norms). However, this distinction has not been studied frequently in alcohol-related SNS research. Moreover, most studies examining the mediating effect of both groups mainly focused on SNS use as a homogenous construct (e.g., overall SNS use). Nevertheless, in today’s increasingly connected digital era, SNS platforms (e.g., Snapchat, Instagram) can be divided into features (e.g., story, feed) which are even further divided into private and public features (e.g., closed stories, chat). Specifically, this division between private and public features might be relevant when examining norms. That is, whereas both distal and proximal friends have access to public features, only proximal friends are allowed in more private features. As follows, we expect that (1) proximal norms will mediate the relationship between exposure to alcohol posts in private features and alcohol use, while (2) distal norms will be more important in public features. Our research will, thus, be one of the first to differentiate between proximal and distal norms while simultaneously accounting for the private and public media outlets through which these norms might have been constructed.

Methods An online survey study among 787 XXXX emerging adults (\(M_{age} = 21.66, sd_{age} = 1.90, 56.4\% \text{ female}\)) was used to assess our hypotheses. Participants were questioned about their alcohol-
related SNS use, their alcohol use, and their normative perceptions (injunctive and descriptive) of this use. Particularly, the focus was on the popular SNS platforms Instagram (private and public features) and Snapchat (private). Hayes PROCESS macro was used to test the mediation model.

Findings Our findings first show that descriptive and injunctive proximal norms significantly mediated the relationship between exposure to alcohol on private media outlets (i.e., Instagram private features, Snapchat) and alcohol use. More specifically, the relation between Snapchat and alcohol use was fully mediated, whereas the relation between private Instagram features and alcohol was only partially mediated. Second, although there was a significant relation between both Instagram public and private features and descriptive distal norms, distal norms (both injunctive and descriptive) did, contrary to the expectations, not mediate any relationship.

Conclusion Based on our findings we advise future research and interventions to focus on the combination between private media outlets and proximal norms in tackling risky drinking behaviors among emerging adults. Specifically, because private media outlets have been proven to be ideal environments for the circulation of (risky) alcohol portrayals because they are only visible to proximal friends.

Let’s share our drinks! Applying the Prototype Willingness Model to Self-Sharing of Alcohol-Related Social Media References

Sofie Vranken

Introduction Social networking sites (SNS) are fraud with alcohol references (Hendriks et al., 2018). Following the self-generated media effects hypothesis (Valkenburg, 2017), self-sharing of alcohol references impacts subsequent alcohol cognitions and behaviors (Geusens & Beullens, 2017). So far, it remains unclear which mechanisms determine the sharing of these references. To address this gap, we will employ the Prototype Willingness Model (PWM) (Gibbons et al., 2020). While the PWM was developed to explain offline risk behaviors (e.g., substance use), scholars suggest that this model may also be used to understand risky online self-presentations (Van Gool et al., 2015). Extending this line of research, this study will explore the predictive power of the reasoned and social reaction pathway of the PWM. Within the reasoned pathway, the likelihood to disclose alcohol references would depend on attitudes, subjective norms and intentions towards the sharing of these references. As for the reasoned pathway, self-sharing of alcohol references may also be predicted by prototype perceptions (i.e., similarity and favorability judgements of individuals who share alcohol references) and the willingness to share alcohol-related references. Figure 1 provides an overview of our model.

Method Cross-sectional data was collected among 289 young adults (Mage=22.55; SD=2.24). The questionnaire contained items regarding attitudes, subjective norms of peers, prototype perceptions (similarity/favorability), willingness, intentions towards and sharing of alcohol references on SNS (Ajzen, 2019; Branley & Covey, 2018); and control variables (alcohol use, gender). Structural equation modeling (AMOS, bootstrapped 1000 samples) was used to test the model.
Results The model fitted the data acceptably ($X^2=399.85; \text{df}=181; \chi^2/\text{df}=2.21; p<.001; \text{GFI}=.89; \text{AGFI}=.85; \text{CFI}=.94; \text{TLI}=.93; \text{RMSEA}=.06; \text{SRMR}=.05$). The results show that, prototype similarity predict the individuals’ willingness to share alcohol references on SNS. In line with the reasoned pathway, individuals who show positive attitudes towards sharing of alcohol references, believe that peers would approve of this self-disclosure behavior and are more willing to engage in this behavior themselves, have a higher intention and likelihood to share alcohol references on their SNS profiles.

Discussion Scholars uttered their concern regarding the omnipresence of alcohol-related SNS references (Curtis et al., 2018) as exposure to and self-sharing of these references influences alcohol-related determinants (norms, alcohol use) (Geusens & Beullens, 2017). This study is the first to apply the PWM (Gibbons et al., 2020) to explore why individuals engage in these particular self-disclosure practices. Our results showed that attitudes, norms, prototype similarity, willingness and intention towards the sharing of alcohol-related SNS references appear to be crucial mechanisms determining the subsequent sharing of these references. This thus implies that individuals who memorialize their drinking experiences online not only rely on rational (attitudes, norms) but also more unintentional (prototype similarity, willingness) decision-making processes. This aligns with Hendriks et al. (2017) who showed that individuals are not conscious about the presence of alcohol in their SNS posts. Specifically, alcohol use tends to be portrayed in the background ‘by chance’ (Hendriks et al., 2017). Notwithstanding, media literacy interventions could increase awareness regarding the ubiquity and effects of alcohol-related SNS references (influence on attitudes and behaviors).

Primed motivationally-relevant pro-nutritional images in cafeteria can double children’s selection of healthy foods for consumption

Lelia Samson

Publications suggest that promoting fruit and vegetables improves long-term nutritional patterns, reduces, and prevents obesity (Epstein et al., 2001; WHO, 2005, 2016, 2018). This research aims to improve the effectiveness of public health campaigns promoting fruit and vegetables through motivationally-relevant appeals – for example, appeals displaying healthy foods as enjoyable and ripe (through hedonic and palatability cues), as well as social (through social eating contexts of shared meals). Exposure to motivationally-relevant appeals has been found to activate the appetitive processing of pro-nutritional images, attracting attention, memory, arousal and positive affect for them and for the healthy foods promoted (Samson & Buijzen, 2020; Samson et al., 2020; Spielvogel et al., 2018). Drawing on the dimensional theory of emotion and motivational system activation, which regulate the automatic responses to motivationally-relevant cues, those with adaptive significance to the organism (Cacioppo et al., 1999; Ito et al., 1998), exposure to motivationally-relevant pro-nutritional images is expected to also activate the appetitive motivational system to stimulate the selection of healthy foods for consumption. Beyond a single exposure, media priming theory predicts that exposure to a media stimulus, previously seen by audiences will further increase their reactions, like in this case, their healthy food choice for consumption (Roskos-Ewoldsen et al., 2007).
This research presents two between-subjects field experiments: Study 1 (N=179) investigated how priming motivationally-relevant pro-nutritional images on-site influenced the healthy and unhealthy food choices for consumption in cafeteria, made by youngsters who have seen the image in the context of a laboratory experiment. Study 2 explored the effects of displaying a motivationally-relevant pro-nutritional image in the cafeteria on all food sales.

The priming manipulation was accomplished through a prominent display in the participating cafeteria for two weeks. No image was displayed in the participating cafeteria for two weeks in the Nonpriming condition. The food choices of participants were collected unobtrusively through coupons rewarded for experimental participation tracking their food choices, made from a wide selection of healthy (e.g., vegetables, fruits, freshly-squeezed fruit drinks without added sugar) and unhealthy foods (e.g., energy-dense snacks, sodas). Food consumption choice has been coded and categorized in healthy and unhealthy choices. Stringent definitions have been used to only include fresh vegetables (such as a cup of fresh cherry tomatoes, baby carrots, baby cucumbers, etc.), fruits, water, and freshly-squeezed fruit drinks without added sugar as healthy items. Sugary drinks, salty and sweet snacks have been classified as unhealthy food choices, in a similarly stringent categorization. Only drinks and non-meal snacks were considered and compared, in order to avoid arguable debates about the nutritious content of meals and complex foods.

Priming motivationally-relevant pro-nutritional images more than doubled children’ selection of healthy foods for consumption, while the unhealthy food consumption remained unaffected. Study 2 evidenced that a single exposure to the motivationally-relevant pro-nutritional image increased all healthy food purchases in the cafeteria by over 35%.

**PARALLEL SESSION 8 | FRIDAY 5 NOVEMBER, 11.15 – 12.15 CET**

**Blue Room (Room 3) | WiP: Health Communication**

The role of critical nutrition literacy in the effect of contradictory information on nutrition confusion and nutrition backlash in young adults: an experimental study

*Jules Vrinten, Kathleen Van Royen, Sara Pabian, Charlotte De Backer and Christophe Matthys*

**Background** Young adulthood is an important formative period in which lifelong health-related habits are established. However, research examining nutrition-related confusion and nutrition backlash among young adults is scarce. One of the key determinants of nutrition confusion and nutrition backlash is thought to be contradictory information. Nevertheless, this has been empirically investigated in a limited number of mainly cross-sectional studies. Theoretically, it can be predicted that the ability to critically evaluate nutrition information, termed critical nutrition literacy, could mitigate negative consequences of contradictory information. Yet there are currently no studies that have investigated the role of critical nutrition literacy in the context of contradictory nutrition information.
Aim  The aim of this study was to examine the moderating role of young adults’ critical nutrition literacy in the known effect of contradictory nutrition information on nutrition confusion, and nutrition backlash.

Method  In an online experimental setup, participants were randomly distributed to one of four conditions. The participants were subsequently presented with six positive, negative, or contradictory Instagram messages on nutrition. In a control condition, participants viewed six neutral Instagram messages unrelated to nutrition. Nutrition confusion, nutrition backlash and critical nutrition literacy were measured using validated instruments. Structural equation modelling will be applied for data analysis.

Results  The final sample consisted of 181 young adults. As this research is ongoing, we have yet to analyse the data and formulate outcomes.

Conclusion  It is expected that insights from this study can contribute to a deepened understanding of the associations between contradictory information, nutrition confusion, nutrition backlash and critical nutrition literacy. Health communication professionals can potentially apply findings from this study in the development of intervention campaigns aimed at reducing nutrition confusion and nutrition backlash. Future intervention campaigns can focus on enhancing consumers’ critical nutrition literacy to function as a protective tool against contradictory nutrition information.

Individual empowerment from a health communication lens: Negotiating meaning between health and disease

Sara Atanasova and Isabell Koinig

Introduction  In the field of health communication, individual empowerment is frequently described as individuals’ enhanced perceived ability to control and manage their respective health conditions, apply self-care and become more involved in health-related decisions (Nutbeam, 2000). Accordingly, it is usually addressed as patient empowerment or self-empowerment and the concepts are often used interchangeably. However, patient empowerment is more specifically related to individuals who receive medical treatment (i.e. Patients), while in self-empowerment, the individual is not necessarily considered as a patient but as a healthcare consumer (Koinig, 2016). Hence, individual empowerment extends to wellness, fitness and nutrition.

Empowerment is context-specific concept and can be applied to different health situations, ranging from health maintenance, healthy lifestyles and health condition management. Despite conceptual distinctions between patient and self-empowerment and the association of empowerment with beneficial processes and health-related outcomes, research has paid little attention to whether the relation between health and disease (or absence of health) is conceptualized differently in patient and self-empowerment (by adopting a salutogenic view of health). Rather, empowerment research has had a strong focus on an individual’s achievement of control over his/her life and health in the past and has failed to address what it actually means to achieve positive health outcomes. Our research proposal is driven by two main questions:
1) What are the main conceptual differences and similarities in definitions and dimensions of patient empowerment and self-empowerment?

2) How are the concepts of health and well-being addressed and understood in conceptualizations of patient and self-empowerment?

**Main argument** Empowerment has become one of the central concepts of the current paradigm shift, moving from the traditional model of care to a more patient-centered approach to healthcare (Palumbo, 2017). Moreover, empowerment is often addressed as part of Antonovsky’s (1979) salutogenic model of health, which emphasizes that the development of health is subject to various (environmental and social) aspects. The salutogenic model claims that health is a dynamic process, developed through interactions between people and their everyday context; it thus requires an individual’s active involvement and participation in the ongoing pursuit of health (Lindström & Eriksson, 2010). To this end, we will conduct a review of existing definitions and conceptualizations of (patient and self-) empowerment in the health communication context to answer the previously introduced research questions. This corpus will help us to derive at a more current perspective of empowerment that moves toward the changing (salutogenic and more holistic) notion of health.

**Conclusion** Through our review, we want to contest the notion of empowerment being used as a buzzword and intend to strengthen the role of empowerment in achieving health, for instance, e.g., by focusing on an individual’s, pro-active decision making in the contexts of fitness, nutrition and well-being. In conclusion, we will derive implications for health promotion and education.

---

**Effective Strategies for Crisis Communication on Social Media by Clinics in Austria, Germany and Switzerland. Goals, Theory and Methods**

*Isabell Koinig, Doreen Reifegerste, Nicole Rosenberger, Colette Schneider Stingelin and Julia Grundisch*

Social media (e.g. Twitter, Facebook, youtube) are widely used in health communication and are increasingly also used strategically by organisations in the health sector (Schneckenleitner, 2019; Tuffs, 2014). Already in 2017, more than 95% of clinics used social media, although the communication effort varied by depending on the country, clinic size and type of services offered (Smith, 2017). In crises clinic representatives in healthcare organisations, as well as staff, patients, and other stakeholders participate in public discourses both through mass media and social media. Not only the COVID-19 pandemic, but also everyday hospital life has a high potential for crisis communication dynamics, which can concern hygiene requirements, misconduct or even deaths (Töpfer & Leffler, 2017). Although there are many studies of crisis communication, little is known about how clinics, as the largest player in the healthcare market, can strategically use dialogical forms of communication on social media for crisis communication within their country-specific structures (macro-level) and how different organisational structures can influence such strategies (meso level). With the exception of a few academic articles and studies (e.g. Fisher Liu et al., 2018; Lombardi et al., 2020), we have little knowledge about the activities, digital literacy and empowerment of clinic representatives communicating on social media (micro level).
The aim of the research project presented herein is to identify the factors and strategies of effective crisis communication by clinics on social media. In order to gain a comprehensive picture, we want to focus on the micro, meso and macro levels of organisational communication: (1) the social media activities of clinics during past crisis situations with a particular focus on dialogic features (macro-level); (2) the clinics’ readiness to deal with crises and use social media as part of crisis communication (meso-level); and (3) the empowerment of individuals to post social media content on behalf of the clinic in a crisis situation (micro-level).

We plan to analyse the three levels for four clinics each in Austria, Germany and Switzerland (n= 12) with a mixed method design: a content analysis of crisis communication on social media to gain information about the state of the art of crisis communication by clinics (macro level); interviews with and content analyses of documents to get insights into the organisational context (meso level), and interviews with employees to uncover the extent to which individuals are enabled to communicate on social media (micro level).

We would like to present and discuss our research questions, theory and methods at the ECHC. By studying crisis communication on social media by clinics in three different countries, we aim to identify success factors and strategies on how to empower organisational members and ultimately organisations to proactively deal with crises, as only by investing in crisis preparation and training effective crisis communication can be achieved (Renner & Gamp, 2014). The findings from our study will not only provide insights into adequate crisis management clinics in the three countries, but also broaden our understanding of communication in turbulent times in other health organisations in other European countries.

Implicit measure of health goal facilitation and interference

*Sara Kassas, Catherine Culot and Ann desmet*

Health behaviour change programs that target several healthy lifestyles have a greater likelihood to create a public health impact than single-behaviour programs but are not always effective in changing all targeted health behaviours. Interference (e.g. Competition for scarce resources of time and energy) and facilitation (e.g. Achieving one goal can help the achievement of another goal) between different behavioural goals are hypothesized to cause heterogeneity in the effectiveness of multiple health behaviour change programs. Another hypothesis is that compensatory health beliefs (e.g. Rewarding oneself for a healthy behaviour with an unhealthy behaviour) can explain a lack of multiple health behaviour change. Goal interference and facilitation is often studied at lower levels, such as concrete actions that people take (e.g. Preparing a healthy meal and driving children to their leisure activities, which may compete for time resources), whereas healthy lifestyles can also facilitate or interfere at higher levels of personal values (value of being a caring parent). Current methods to assess how actions map onto personal values represent high participant burden (e.g. Matrix methods, Personal Project Analysis). In my phd project, I will investigate the potential of using implicit measurement methods, based on reaction times and combined stimuli, to investigate interference and facilitation of health goals at higher levels. This could present a method with lower burden, that can be conducted online, and
would aid in designing multi-behavioural health interventions that can increase facilitation between healthy behaviours based on personal values, and reduce health goal conflicts. In this work in progress, I will present the detailed study protocol, and if available, preliminary results.