

Health, Environment, and Education
in Challenging Times

Conference Abstracts



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Oral Presentation

Narrative environments – new settings for environmental education

Petra Maria Baettig-Frey, Monica Ursina Jaeger, Urs Mueller

University of Applied Science Zurich, Grrüental, Postfach 8820 Wädenswil,
bape@zhaw.ch, jaer@zhaw.ch, murr@zhaw.ch

ABSTRACT

Environmental education usually goes beyond the mere transfer of factual knowledge, especially in an informal setting, addressing a broad public: It motivates to reflect one's own lifestyle and to make more environment-friendly choices. In the research group Sustainability Communication and Environmental Education new methods for educating more effectively, efficiently, and sustainably are explored.

The starting point of each project is a precise impact orientation, defining the expected outcomes, the key messages, and -depending on the sought impact – recommendations for action. Based on the impact orientation, an analysis of the relevant target groups is conducted, before defining the means for education or public communication.

In addition, all educational projects are developed in an interdisciplinary team, where, natural and educational scientists, communication experts, artists, landscape architects and graphic designers work together. The team creates for example outdoor spaces with interactive exhibits and garden elements that invite visitors to immerse themselves in a landscape of visual impressions, sounds and stories. These "narrative environments" tell a story that convey scientific content in a playful way. Facts and complex correlations become meaningful and tangible. These gardens provide attractive settings for excursions and help create positive emotions that make students more receptive. They absorb information and are motivated to think about changes in their own lives, as could be shown in an evaluation asking students before, after and 6 months after their visit to the gardens.

The gardens also provide a setting for informal learning. For example, young adults who are not environmentally aware are invited to a 'Zombie Mission', a digital outdoor game. This scientainment approach takes advantage of the popularity of escape rooms, Pokemon go or other new outdoor group experiences. While immersed in an exciting race against time, students pick up some facts about sustainable nutrition– and might be motivated to explore the gardens afterwards.

Developing impact-oriented, target group-specific tools can help improve the transfer of knowledge from scientists to students or to the public and can foster an engaged, informed, and long-lasting relationship to complex environmental topics.

Keywords: target group, impact-orientation, narrative environment

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Oral Presentation

HIV research during COVID-19: responding to new challenges

Annie Lu Nguyen

University of Southern California, Keck School of Medicine, 1000 South Fremont Ave.,
Alhambra, CA 91803, annie.nguyen@med.usc.edu

ABSTRACT

Many states and local governments in the United States responded to the COVID-19 pandemic in early to mid-March by issuing “shelter-in-place” mandates for all but essential activities. These physical distancing policies are a necessary and vital tool for the prevention of COVID-19 transmission but the practical implementation of these measures caused many disruptions to day-to-day life. In this talk, I will describe the strategies that our research team utilized to ensure research continuity during the lockdown. Recognizing the potentially negative impacts of physical distancing on health and daily stress, our team sought to repurpose funds from an existing project to support data collection on the impact of COVID-19 on older adults living with HIV. By tapping into existing networks and resources, we quickly designed and pilot tested a survey, obtained approval from the Institutional Review Board, and requested reallocation of funds to support the research. 100 participants were recruited through email listservs and data were collected entirely online from April through June 2020. Participants’ mean age was 64.2, most were non-Hispanic white (88.0%), men (96.0%) and identified as gay or lesbian (93.0%). Respondents reported high compliance with physical distancing (96.0%) and mask wearing (98.0%). One-third of respondents experienced financial challenges. A quarter (24.0%) skipped a dose of their HIV medication during COVID-19 and many experienced disruptions to their healthcare as well as mental health care. Decreases in the quality of relationships with friends was reported by 40.7% of respondents although some increases in relationship quality were also reported. Although the sample size is limited, findings point to the different challenges that older adults living with HIV are experiencing during COVID-19. Data collection is currently being expanded for national and international comparisons.

Keywords: older adults; mental health; pandemic

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Oral Presentation

COVID-climate nexus and the application of human rights law: An African perspective

Ademola Jegede

Public and International Law Department, University of Venda, Thohoyandou, South Africa

ABSTRACT

COVID-19 presents humanity with one of the most devastating health crises in recent history. It emerged at a critical period when the international community struggles with no less an important global challenge in the form of climate change. Both challenges share delicate commonalities in terms of their underlying causes, the global nature of their spread and the negative economic consequences of their reach. More importantly, international human rights law has featured prominently as a legal and political response to both phenomena. For COVID-19, the concept of human rights has featured more controversially in the negative sense of its derogation with the view of combating the pandemic, while regarding climate change, international human right law has been a rallying concept in fighting its effects. Africa is an exemplary site where both phenomena have serious adverse impacts on vulnerable populations. At the regional level, it has a human rights architecture that is useful in addressing the phenomena. Whether gains exist for climate change in terms of the application of human rights as a regional response to COVID-19, and if so, how these gains may inform future response of regional human rights law to climate change are the main queries of this paper.

In addressing the issues, on one hand, the paper focuses on COVID-19, an international public health crisis with the view of drawing a link to human rights in terms of the urgency of its derogation as a response measure. On the other hand, the paper engages with the link of climate change to human rights in terms of the urgency of the realisation of the latter as a response. In doing so, the paper argues that the derogation in one is an enabler and mitigation measure of the other. It analyses relevant regional response from human rights perspective with a view to argue that derogation of rights for COVID-19 mitigation purpose may be beneficial for the climate.

Keywords: Africa, Covid-19, climate change, human rights, derogation

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Oral Presentation

Are We Failing To Accommodate 20% Of Our Students / Trainees?

Robert S. Gold, Sandra Saperstein, Sacha St. Onge Ahmad

Department of Behavioral and Community Health, University of Maryland School of Public Health
College Park, MD 20742, rsgold@umd.edu, ssaperst@umd.edu, ssoa@umd.edu

ABSTRACT

Current estimates in the United States suggest that approximately 20% of students in higher education programs require educational accommodation in order to maximize their potential to thrive in these programs. And as their age increases, the percentage of students requiring accommodation for physical, social, emotional, and developmental disabilities increases among those in our training programs. These accommodations go far beyond providing more time for testing or completion of assignments – they require a thorough examination of the pedagogy we use in delivering learning opportunities. And we've found that these accommodations are even more critical in online, blended, and hybrid education and training programs. Finally, when we make our education / training programs more accessible, we find that the benefits accrue to all learners, not simply those requiring accommodations.

We will report on the results of a study to understand what accommodations may be needed by today's higher education and post graduate learners and how to adapt our pedagogy to address those needs with user-centered design. We will also provide specific illustrations on how to provide these adaptations.

Keywords: Educational Accommodation; Accessibility, User-Centered Design

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Oral Presentation

“Impact of COVID on service provision for vulnerable populations”

David Wyatt Seal

Department of Global Community Health and Behavioral Sciences
Tulane University School of Public Health and Tropical Medicine
1440 Canal Street, Ste 2200, MS 8319
New Orleans, LA 70116 USA
dseal@tulane.edu

ABSTRACT

The COVID-19 pandemic has had a devastating impact on the world. This presentation will focus on the unique impacts of the pandemic on two especially vulnerable populations in the United States: people who work or are confined in a correctional setting and people who inject drugs (PWID) in rural regions. People who are confined or work in correctional settings are at elevated risk for exposure to COVID-19. Correctional settings are confined spaces often with closely crowded cells and shared spaces (e.g., dining halls). Many people enter these facilities from a wide range of geographical locations each day. If COVID is introduced into a facility, the close proximity of people can accelerate disease spread and isolation may be difficult. Many lack recommended preventive measures (e.g., hand sanitizer, cleaning disinfectants) due to security concerns. Regarding people rural PWID, many are unable to obtain sufficient resources for daily living costs. But many homeless shelters have closed or reduced capacity to maintain spacing. They also may be at increased risk for purchase of “bad” drug batches due to reduced supply. Syringe exchange places are either closed or operating under limited hours making it difficult to access clean syringes and supplies, Narcan, and fentanyl test strips. Violations of shelter in place mandates can lead to incarceration. Stigmas may make PWID hesitant to access medical care if COVID symptoms are present. Moreover, both PWID and incarcerated people often lack access to internet and other modalities for accessing credible and actionable information. Both groups are at increased vulnerability for experiencing anxiety and depression from the multiplicative stressors they face each day. Indeed, increased overdose and domestic violence are observed among PWID. Increased suicide has been observed among both groups. Strategies to address these increased vulnerabilities will be discussed.

Keywords: COVID-19, Injection Drug Users, Correctional Facilities

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What knowledge gaps do students have concerning viruses? (And what should they know?)

Uwe K. Simon

University of Graz, Schubertstraße 51a, 8010 Graz, Austria, uwe.simon@uni-graz.at

ABSTRACT

There is a plethora of myths and a lot of uncertainty concerning COVID-19: e.g. from where it originated, how it spreads, how its spreading may be prevented, how people having fallen ill might be treated, whether a future vaccination should be enforced by law, or whether indeed the virus causing the disease really exists. The controversial debates about these topics indicate, how little many people know about viruses. For example, many people believe that viruses are something similar to bacteria and may thus be killed by antibiotics. Yet viruses have no metabolism antibiotics could interfere with. Additionally, antibiotic misuse contributes to the evolution of antibiotic-resistant bacterial strains – a strong public health issue nowadays. Here, results from a study showing the knowledge of Austrian high school and university students with respect to virus biology, virus structure and health-education issues are presented based on a comprehensive questionnaire with a variety of items such as drawing and labelling a virus, naming viral diseases, etc. Participants comprised 133 grade 7 and 199 grade 10 high school students as well as 133 first-year biology and 181 first-year nonbiology university students. Their answers were analyzed both quantitatively and qualitatively. A highly significant group effect was found for total knowledge relating to virus biology and health issues ($F(3, 642) = 44.17, p < 0.01, \eta^2_p = 0.17$). Specific post-hoc tests (Tukey test) showed significant differences between all groups ($p < .01$) with the exception of 1st year non-biology students and grade 10 high school students. Biology freshmen achieved better results than all other groups, even though they had not yet encountered this topic at their courses. However, even amongst them a high number of misconceptions was discovered. For example, a virus was drawn as a pro- or eukaryotic cell, or diphtheria was named as a viral disease. Consequences of such misconceptions and where they may stem from will be discussed and some ideas of how school (and school book authors) could tackle this problem are presented.

Keywords: virus, education, school

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Oral Presentation

Application of a Health-Related Conceptual Model Map to COVID-19

Sandra Vamos¹, Kirsten Schlüter²

¹Western Michigan University, School of Interdisciplinary Health Programs, 1903 W Michigan Ave,
Kalamazoo MI 49008-5382 USA, sandra.vamos@wmich.edu,

² University of Cologne, Institute of Biology Education, Herbert-Lewin-Str. 2, 50858 Cologne (Köln),
Germany, kirsten.schlueter@uni-koeln.de

ABSTRACT

COVID-19 is still spreading at an undiminished rate. It influences our lives more than we could have predicted. Science provides new findings and is intended to serve as a basis for well-informed political, public, and individual decisions. However, the COVID-19 infodemic has required individuals across the world to access information to educate themselves and others, apply health information, and change daily behavior. Health literacy skills are required to sift through heaps of complex, changing, and often contradictory and/or false information, while adhering to updated well-founded COVID-19 recommendations and guidelines for action. The need to be 'health literate' has never been so important. The reasons why people partly circumvent COVID-19 recommendations are manifold. They are reflected by a variety of health and education theories and models that can be applied to different topics. The numerous theoretical concepts suggest that each of them alone do not fully capture human behavior in all its complexity. By looking for areas of overlap between the various theoretical concepts and by merging them, we developed a Conceptual Model Map (CMM) which should provide a more complete view on factors influencing human health behavior. Next to health literacy, an individual's attitude strongly influences one's health behavior. We expect attitude to be the product of a multitude of (decision) motives, which are weighted against each other. These motives also include the basic variables of common behavioral change theories. However, the motives do not only refer to health preservation, but may also be based on quite different goals. Even if the latter is not the case, a person will sometimes act against his or her intentions. A possible reason for this is based on the situatedness of every action and thus the discrepancy between theoretical considerations and reality. This presentation will apply the CMM to a practical COVID-19 situation. Specifically, this is intended to illustrate that our attention should turn to interventions that focus beyond just information (e.g., infodemic) and better prepare individuals and societies for positive behavior change and social responsibility.

Keywords: health behavior, health literacy, conceptual model map

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Student Presentations

Video Presentation

Research Frustrations in the time of COVID-19

Kristen Brewer

Teaching assistant for the School of Human Sciences, Southern Illinois University Carbondale, 475
Clocktower Drive, Carbondale, IL 62901, Kristen.brewer@siu.edu

ABSTRACT

This past year has been a lesson in how connectedness and personal interaction has been taken for granted by many. And while this has become abundantly clear to those wishing to eat in restaurants, go to concerts or shows, or even visit with extended, elderly, and ill family members, it has also impacted public health educators and researchers.

For those of us who are actively working on research projects, many of which were conceptualized and approved prior to the COVID-19 pandemic, the restrictions and risk of infection has impacted our ability to conduct research projects as originally envisioned. The social distancing guidelines, limits to gatherings, and increase in technological means of communication has affected how we as researchers continue to conduct research in a mindful and safe way.

This presentation will discuss some of the limitations highlighted over the past few months. While researchers and doctoral students work to adjust their methods, participant recruitment, and possibly even research questions and aims, there looms the possibility of even more changes and uncertainty in the field. Each day could bring new restrictions and limitations, as well as open up new possibilities for novel information and insights on a historical event in our field. How can we best continue to approach our research in a safe way? How can we highlight the potential insights a pandemic could add to our original research projects? How can we reach participants in a meaningful way during shutdowns and restrictions when they are already inundated with health information and requests? This presentation will address these questions and hopefully help open or continue a dialogue around this issue.

Keywords: research methods, research participants, COVID-19

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Video Presentation

Bridging Power: New Paths for Collaboration

Carmel Farzaneh¹, Kimberly Wu²

¹University of California San Diego, 837 Ava ct. Lafayette CA 94549, Cfarzane@ucsd.edu

²Tulane University- School of Public Health and Tropical Medicine, 987 Taft Place, New Orleans, LA 70119, kwu6@tulane.edu

ABSTRACT

As two doctoral scholars entering our fields during a period of great uncertainty marked by the rapid social changes in the face of the global pandemic, we are seeing more clearly the need for deep, meaningful, and interdisciplinary collaboration. We represent different fields, public health and communication studies, and key to our own recent reflections is the idea of bridging and consciously creating connections as scholars. This idea of bridging is illustrated in the work of sociologist Georg Simmel, who reminds us that it is human nature to create separateness between individual concepts and objects of learning, and also that we have the ability to create connections that mirrors the essential oneness of what is, “that is why we must first conceive intellectually of the merely indifferent existence of two river banks as something separated in order to connect them by means of a bridge.”

In our talk, we draw from our own experiences in identifying, participating, and creating bridges between our personal experiences with that of the theoretical world of academia. We plan to present emerging questions and potential implications regarding the pursuit of true collaboration, many raised from our recent reflections around the purpose, approach, attitude, and assumptions from our own studies. Adopting a praxis of study, reflection, discussion, and action, we suggest that more possibilities for crafting sustainable solutions to meet the needs during these times require the collective act of laying down stepping stones that bridge between fields as well as within. We will briefly share insights about how rethinking collaboration in academia can be the basis for advancing justice and equity in the global arena.

Keywords: Interdisciplinary, Collaboration, Education

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Video Presentation

Could the Quarantine 15 Be Our Next Pandemic?

Ashley Moss

SIU Carbondale, School of Human Sciences
2510 S. Park Ln, Carbondale, IL 62903
amoss@siu.edu

ABSTRACT

While social distancing is deemed the safest for all in the prevention of contracting COVID-19, it is not the healthiest. Many reported weight gains since the pandemic began. This is most commonly being referred to as the Quarantine 15. Much like the Freshman 15, this weight gain can be rapid and is certainly unwanted. There are several outlets that play a role on dietary consumption: access to food- both perishable and non-perishable, financial means, social networks, among others. Similarly, food plays many roles in peoples' lives. It can be one way an individual nourishes the body, copes with hardship, and more. This presentation reflects on the practice of social distancing, highlighting the interconnectedness of weight status using the Social Ecological Model (SEM). Additionally, it discusses implications for future survival of practicing social distancing as we continue to move through the COVID-19 pandemic. It uses current and relevant literature to collect, organize, and disseminate data into the various constructs of the SEM. Like the COVID-19 virus, the Quarantine 15 does not discriminate. It is best that individuals practice social distancing to help ensure prevention of contracting the virus. However, it is important for individuals to practice social distancing healthfully. Ultimately, this presentation calls for awareness from those within the SEM constructs to help create, implement, and adhere to interventions- both current and new, in hopes of lessening exacerbated obesity rates due to COVID-19. Otherwise, the Quarantine 15 could very well be our next pandemic.

Keywords: COVID-19, Quarantine 15, nutrition

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Video Presentation

Extreme Weather Events and the Impact on Public Mental Health: A Social Ecological Perspective

Mary York

School of Human Sciences
Southern Illinois University Carbondale
475 Clocktower Drive, Carbondale, IL 62901
mary.york@siu.edu

ABSTRACT

The world has recently experienced five of the warmest years on record, with the year 2020 bearing witness to one of the worst wildfire seasons in U.S. history and nearly half of the nation encountering significant drought conditions. At the same time, the high prevalence of mental health disorders in the U.S. is also a major public health concern. Although exposure to extreme weather events such as wildfires, droughts, and floods is most commonly associated with economic loss, mental health consequences have also emerged as a prominent public health challenge with a growing literature linking extreme weather with adverse mental health outcomes. Because of the cumulative health threats posed by the direct effects of climate change and corresponding psychological distress, there is an ever-pressing need to identify and address the psychosocial determinants of at-risk populations. Using individual, organizational, and community level factors consistent with the social ecological model, this presentation highlights key factors that influence mental health vulnerabilities and resilience in response to extreme weather events.

Keywords: climate change, mental health

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