

System for monitoring COVID-19 risk perceptions of the public in Finland to support the risk communication response

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Coordination, resourcing and strategies

- The Finnish Institute for Health and Welfare (THL) initiated a practical monitoring system to analyze COVID-19 related risk perceptions of the public.
- The process allows qualitative data collection and analysis in real time. The system utilizes an anthropological approach to explore the meanings of risk and the elements that steer the assessment of a risk situation. It uses a conceptual framework of subjective perception of risk, reflecting individual, societal and cultural contexts.
- Data sources are social media posts and emails from the public to THL.
- The recommendations are used to inform the risk communication efforts of THL on a bi-weekly basis.
- Knowledge co-creation methodology based on using multi-sectorial expertise is applied to the monitoring system to verify the recommendations and to discuss how to use them in the COVID-19 response by engaging various THL public health and risk communication experts in discussions.

Data retrieval System

- The first step in the process was to identify all data sources through which the public requests COVID-19 related information from THL or provides comments about the pandemic to THL. These included THL social media sites; Facebook, Twitter and Instagram as well as various information mailboxes and the mailboxes of THL public health experts. The team decided to select the most appropriate data sources to be used in the monitoring system based on their accessibility both practicality and feasibility. Therefore the final data sources included Facebook and general information and infectious disease doctors' mailboxes.
- The second step included establishing a robust system for data retrieval that would be practical and implementable in the context of pandemic when employees of the organization have limited time to support the data collection. Focal points from the THL communication team forwarded all COVID-19 related emails to the data analysts. In addition, data analysts had access to the THL Facebook page.

Integrated measurement, research and data analysis

- A rapid thematic analysis is carried out bi-weekly following the conceptual framework for risk that is used as a structure to analyze the narrative data including concepts such as Catastrophic potential, probability of dying, health impairments, harm to assets, future impacts, eco-centric worldview, safety culture, controllability beliefs reasons to exposure, affective associations
- The analysis starts by reading of the texts related to COVID-19 and coronavirus and searching for narratives that relate to risk perception domains.
- The relevant text is extracted and organized in a chart based on the risk domains. Qualitative data analysis software can be used to organize the data.

- Coding is conducted separately for each risk domain by searching for words or paragraphs that describe the risk domains.
- The process continuous by merging the codes into larger categories. In the final stage, the analyst interpretation based on the categories relates to concepts that explain the data.
- The concepts are used to draft risk communication messages following the evidence of behavioral sciences and best practices in risk communication.

Evidence-based interventions and implementation research

- The process produces risk communication messages recommendations based on the evidence of behavioral sciences and best practices in risk communication that are made available for those who communicate with the public in THL during the pandemic.

Reporting and integration into decision-making

- The operational risk communication recommendations are verified by various THL public health and risk communication experts in ad hoc meetings and discussions. This knowledge co-creation methodology ensures that the recommendations are practical and applicable in the epidemiological and cultural context of Finland.
- The findings and recommendations are emailed to a large number of public health and risk communication experts of THL through internal mailing lists. The findings are also included in a THL bi-weekly pandemic information package for national decision-making.

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- The graphic shows the impact of a risk perception monitoring system to risk communication response.
- Before the system, public health experts gathered, analyzed, and disseminated risk perception data individually. Risk communication messages and approaches were fragmented.
- The new system centralized the risk perception data collection and analysis to one place and integrated it with expertise in behavioral and anthropological insights leading to one package of operational recommendations that is available for all risk communicators.

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The table provides an example of how the findings of the risk perception monitoring system were used in the national risk communication response.

Data

Data highlights that the public has many questions and uncertainties how to avoid getting infected with coronavirus in everyday situation.

Data analysis concept

The data analysis and interpretation shows that people have lack of understanding how to apply the given guidance in their everyday life. They do not have skills and confidence to prevent the infection although they have information about the appropriate hygiene and social distancing measures.

Risk perception

The analysis indicates increased risk perception of the public which in that situation context does not feel ideal. Accordingly the recommendations must consider how to play down the perception risk.

Recommendations

The recommendation is to provide practical guidance to everyday life how to prevent the transmission of coronavirus

Intervention

The intervention include application of personal risk assessment methodology in everyday life situations, which has the potential to increase the self-confidence to manage risks

Dissemination

A capacity building webinar was conducted to introduce social media influencers to identify and mitigate the

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- This qualitative data collection provides evidence-based recommendations for risk communication purposes. It has proven to be a practical and participatory way to develop messages that can be used during the pandemic. This is critical as risk communication programs must produce trustworthy and relevant information during emergencies to inform people about risk, influence behavioral change, and encourage participation in decision making about emergency measures.
- The strengths of this exercise are its ability to produce culturally competent and context-specific risk communication messages that are readily available for risk communicators during the COVID-19 response and other epidemics in the future.
- People who contact health authorities during an emergency are often highly emotional and have strong opinions. The data sourced from the public is ideal for risk communication content development as generates a variety of fresh ideas and concepts. As this system focuses on context specific explanations of risk in which the subjective meaning of risk is central, the system is relevant to risk communication content development.
- The system requires time and resources: expertise in qualitative research, behavioral sciences and risk communication. It is also labor intensive

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- In the future, procedures can be improved by making them easier and faster to undertake. such as automated data retrieval system.
- In the future, expansion of the system will be considered to other target audiences such as healthcare workers whose infection prevention and control efforts can be improved by monitoring their risk perceptions.
- Likewise data dissemination channels should be reevaluated and new channels for data dissemination should be identified.
- To learn more, it will be essential to develop a monitoring system
- Capacity building trainings can be undertaken to scale up the use of the system for other entities engaged in risk communication to ensure they know how to use the system during the pandemic and future epidemics.

