

Press Release

No. 19 of April 3, 2020

The perception of risks in the coronavirus crisis

Survey by TH Köln

Numbers of infections, doubling times, amounts of government rescue packages: the coronavirus crisis confronts the population with probabilities, exponential growth, and large numbers. But are people capable of thinking in such contexts? Prof Horst Müller-Peters of the Institute for Insurance Studies of TH Köln – University of Applied Sciences has attempted to answer that question by means of an online survey of a nearly representative sample of 2,000 participants in Germany. His study also provides information on concerns and risk perceptions in the COVID-19 crisis as well as how the population is complying with imposed restrictions and bans.

“To be able to assess and understand the coronavirus crisis and the countermeasures, people need to be able to deal with probabilities, large numbers, and exponential trends. The study shows, however, that this is largely beyond human imagination,” says Müller-Peters. For example, respondents were asked to estimate the number of users of an app which increased by 20 percent per month for two years. Some 39 percent of the respondents did not answer this question at all. Most of the others highly underestimated the correct value. It was found that the longer the period of the example and the higher the monthly increase, the more the results were underestimated, until the estimates were no longer related to the actual development. A similarly designed study by Müller-Peters from 2016 also shows that most people in Germany are overstrained with the imagination of figures above one billion. “It turns out that most people dramatically underestimate the dynamics of exponential developments and thus can hardly grasp the extent of the economic aid currently under discussion. Both politicians and the media are called on to use clear, comprehensible examples to make the discussed facts more understandable for the whole of society,” says Müller-Peters.

Concerns and risks

The coronavirus is currently strongly present in the minds of the population. Many respondents indicated concern about becoming infected with COVID-19 (over 60%), getting into economic difficulties (about 50%), and dying from the infection (over 40%). “However, the study also found that the pandemic is not replacing other fears of the respondents. As such, concerns about having a heart attack or getting cancer have decreased only very slightly compared to 2016,” says Müller-Peters. If we look at the individual’s risk perception, a COVID-19 infection is regarded as the highest risk (over 50%). Just like the risk of a heart attack and cancer, the COVID-19 infection and economic distress are seen as a realistic threat by more than a third of the participants. “An exception is the perception of the probability of dying due to the virus. This is present in the everyday fears of 40 percent of those surveyed, but only 20 percent of those perceived it to be a medium to high probability,” said Müller-Peters.

Conformity to regulations

The COVID-19 pandemic has led to severe restrictions to everyday life. More than 60 percent of the respondents indicated that they fully comply with the rules. Another 30 percent stated to be rather likely to follow them. Only five percent admitted to only somewhat following the imposed rules or not at all. “The question of who is most likely to break the rules cannot be answered beyond doubt based on socio-demographic data.

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Although the proportion of those who ‘follow the rules completely’ rises slightly among participants aged above 45, all age groups are largely compliant with the rules. The differences by income, education, or federal state are even smaller. The differences are most likely to be found according to gender. Men have a slightly more ‘relaxed’ interpretation of the rules,” says Müller-Peters.

Study design

For the study, a total of 2,028 people over the age of 18 living in Germany were surveyed with the online panel of YouGov Germany between March 31 and April 2, 2020. The results were weighted and are approximately representative of the population.

The complete results (in German) are available at: https://www.th-koeln.de/mam/downloads/deutsch/hochschule/fakultaeten/wirtschafts_und_rechtswissenschaften/muller-peters_risikowahrnehmung_corona_covid19.pdf

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