Tidsskriftet
DEN NORSKE LEGEFORENING

Fear, information and control during a pandemic

KRONIKK

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When a threat is perceived as understandable and manageable, it is easier for people to adapt to the situation. That is why it is so important for the authorities to keep the public well-informed during the COVID-19 pandemic.

The objective of information issued by the authorities during a pandemic must be to make the population understand the two primary factors that influence attitudes and behaviour. First, that the threat is understood and second that effective protection is available. In order for the threat to be comprehended, the *gravity* of the pandemic must be understood and the individual must feel *sufficiently exposed* to risk. Manageability requires the population to be convinced that it can carry out the necessary measures (*positive response expectation*) and that these measures will protect them (*positive outcome expectation*).

Invisible danger

When human beings cannot see, hear, smell, taste or touch danger, it is impossible for them to assess the risk or to know *whether* they have been exposed, and it becomes difficult for them to protect themselves. This pandemic has turned many of our daily habits into possible sources of contagion. Only with appropriate awareness can the resulting risk be managed. Broadly speaking, only 15–20 % of our behaviour is conscious, whereas the remainder is simply automatic (1). Admittedly, it will require a persistent effort of will to remember to reject the hand that is extended in a friendly greeting.

Compared to other disasters where people are exposed to dangers they cannot sense, such as the ionising radiation from the fallout in Europe after the Chernobyl accident (2), it has been much easier during this pandemic to get the public to comprehend the risk implied by the disease. The exposure given to the virus and the massive and repeated images of it in the mass media have made it possible to create a clear and concrete picture of a common

enemy that must be brought down. The daily publishing of updated counts of hospitalisations and deaths has made the danger even more tangible. For this information to be conveyed and understood is a prerequisite, because, as models show (3), the patterns of the human psyche that stimulate action are best adapted to focus on threats that are specific and short-term.

Necessary fear of infection

During the H1 N1 swine flu pandemic in 2009, it transpired that fear of being infected, in addition to factual information about the risk, was needed in order for some people to change their behaviour. Fear of infection increased preventive actions such as hand-washing and physical distancing. Research and experience from pandemics show that some people place less emphasis on factual information than on other factors (4).

Rational fear is characterised as a fear that is reasonably proportional to the scope of the risk and that mobilises appropriate risk-mitigating behaviour. Like the sensation of pain, fear is a *phylogenetically* determined form of reaction, part of the organism's alarm system, which, in addition to sharpening our senses and drawing attention to danger signals, serves to remove us from risky situations. The ability to perceive threats accurately and to address them with an adequate response, is inherent to good mental health. Irrational fears, on the other hand, which about 20 % of the population are prone to, are either too strong or too weak in proportion to the risk in question, and trigger nervous symptoms and inappropriate behaviour, such as insufficient or exaggerated preventive measures (5).

A crystal clear instruction reduces the anguish of making a decision and serves as a driver of action

The young make up a segment of the population that is particularly prone to resisting the message of risk and efficient response. It is known that their lack of personal experience is likely to create illusions about their own personal invulnerability, known as personal bias; the notion entertained by someone that he is safe from the danger that causes a threat to anyone else (6).

The protests against banning the use of cabins and recreational boats may well be a further manifestation of the same *psychological reactance*, which is a reaction to someone trying to limit a person's freedom of action. This psychological reactance can in itself give rise to a need to demonstrate behaviour of independence and freedom, thereby weakening the fear of infection and increasing the appetite for risk.

On this score, an order is better suited to the task than mere advice; when there is no choice to be made, the role of fear in triggering withdrawal and escape from danger no longer applies. A crystal clear instruction reduces the anguish of making a decision and serves as a driver of action, as do the doctor's white coat and the nurse's uniform.

Control, real and perceived

While many disasters of comparable magnitude are unavoidable, pandemics can often be brought to a halt by the right intervention. In a threatening or real pandemic, the individual's behaviour in the social space is just as important for the development of the pandemic as the coronavirus's contagiousness and deadliness. This fact gives the individual and the groups he or she is a part of significant potential to reduce the risk of infection, but this requires good mental functioning. The information from infection experts emphasises that the willingness and ability of individuals to comply with the recommended and imposed measures is vital. Inability to change behaviour, or disruptive behaviour due to mental illness, can therefore cost lives (5).

The need for *physical distancing* in countering contagion is likely to have an adverse impact on the bonds of contact within families and other groups that otherwise provide security and are the pillars of resilience when everything around us is falling apart. This factor

distinguishes pandemics from other disasters. Referring to the desired modification in behaviour as 'social distancing' is an unfortunate choice of words; social interaction should indeed be maintained, albeit in adapted forms.

There are negative connotations associated with the term used to describe the recommended change in behaviour – *social distancing*. Social contact should be maintained

Having personal *control*, the opportunity and capability to act, is a vital coping mechanism for withstanding stress, and for that very reason is a key term in the nomenclature of stress medicine. If you also have a positive expectation that the health service and the authorities will be able to reduce the risk of infection and have confidence in them doing everything they can, a lot has been achieved. Control means being able to act in a way that can prevent, reduce or stop stress.

A prerequisite for being in actual control is that it is perceived, and *perceived control* is therefore the mediating factor (7). In research on disaster response workers, we find that even modest degrees of real control can translate to a high degree of perceived control. For example, the doctor's focus on and real possibility of helping the individual patient will shield him or her to some extent from overwhelming experiences in a disaster situation. Through our research, we have shown that personal experience of life-threatening situations leads to a more realistic assessment of risk, and to real and perceived control and optimal behaviour during disaster scenarios (8). Accordingly, the tentative conclusion was that experience influences more of individuals' risk assessments and crisis and disaster behaviour than knowledge alone. The challenge in the context of emergency preparedness was whether this competence could be achieved through other forms of experiential learning as opposed to real danger. Can accurate and reliable information on risk and action-oriented information on effective protective measures during a pandemic provide such competence?

We investigated the effect of *stress inoculation training* (SIT) on the ability to perform in demanding safety exercises. SIT works in the same way as a vaccination, in that it exposes recipients to low or moderate forms of stress by forcing them to imagine the situation they are going into, thereby triggering a stress response, a *fear signal*.

Even modest degrees of real control can translate to a high degree of perceived control

When the experimental groups perform better, particularly where physical action is required, the likely explanation is that SIT builds positive expectations of being able to act and thereby cope with the critical situation. The intervention had developed the aforementioned positive response and outcome expectations (9).

People who have built up positive response and outcome expectations of their possibilities of acting are more receptive to early information on risk and tolerance for the discomfort this risk creates. Thus, competent people are characterised by an ability to relate to future risk at an early stage. Conversely, the expectation of being helpless in a risk situation is likely to reduce the ability and willingness to imagine the threatening situation, and even lead to complete denial of risk, and to paralysis or inappropriate fear behaviour if the danger materialises.

Meaning and will

As Leo Eitinger and Viktor Frankl showed in their research, the will to live and the will to meaning are inextricably linked (10). The ability of an individual to protect his own life and health and that of his loved ones during the pandemic and to help save many lives is immediately and highly meaningful. By applying the concept of a national collective effort, each individual joins a common movement; an entire generation is put to the test. The participant identity increases the meaning of the effort, ensures social support from the community, increases the willingness to contribute and reduces the feeling of being an unlucky victim.

Some preliminary conclusions

During the Chernobyl crisis, a considerable information crisis developed in Europe, including in Norway (11). The retrospective view is that it became a powerful 'lesson' for the authorities' information service (12), which the current practice seems to confirm.

The risk information issued by the authorities about the pandemic so far can be described as characterised by accessibility, honesty and transparency. It is provided by individuals and institutions who 1) are perceived as qualified to give the information, 2) are seen as open, reliable and sufficiently independent, and 3) have been able to convey the information in an empathetic manner. The impression so far is that people trust the politicians and the health authorities, that they in turn trust the public, and that the information about the infection and the measures implemented is understandable. This trust is an important factor for ensuring that people actually change their behaviour (13).

Norway's experience to date in the pandemic confirms that adaptability to life-threatening situations increases significantly when the threat is perceived as *understandable, manageable and meaningful* (14). The information campaign appears to have succeeded in getting the public to understand the gravity of the situation and to accept that anyone and everyone can be affected. It has also managed to build the trust in the population necessary to get them to take the steps that are required to protect themselves.

It also appears that, through developing self-efficacy and the perception of personal control and predictability, the information has produced an adequate fear signal and had the same effect as stress inoculation.

REFERENCES:

1. Wheatley T, Wegner DM. Psychology of automaticity of action. I: Smelser NJ, Baltes PB, red. International Encyclopedia of the Social and Behavioral Sciences. Elsevier, 2001: 991–3.

2. Tønnessen A, Mårdberg B, Weisaeth L. Silent disaster: a European perspective on threat perception from Chernobyl far field fallout. J Trauma Stress 2002; 15: 453–9. [PubMed][CrossRef]

3. Blanchard C, Hebert M, Blanchard RJ. Defensive Behaviors. I: Fink G, red. Encyclopedia of Stress. Volume 1. New York, NY: Academic Press, 2000: 652–6.

4. Morganstein JC, Fullerton CS, Ursano RJ et al. Pandemics: Health care emergencies. I: Ursano RJ, Fullerton CS, Weisæth L et al, red. Textbook of Disaster Psychiatry. Cambridge: Cambridge University Press, 2017: 270–84.

5. Malt UF, Malt EA, Angstlidelser I et al. red. Lærebok i psykiatri. 4. utg. Oslo: Gyldendal akademisk, 2018: 265–319.

6. Rolison JJ, Hanoch Y, Wood S et al. Risk-taking differences across the adult life span: a question of age and domain. J Gerontol B Psychol Sci Soc Sci 2014; 69: 870–80. [PubMed][CrossRef]

7. Steptoe A. Control and stress. I: Fink G, red. Encyclopedia of Stress. Volume 1. New York, NY: Academic Press, 2000: 526–32.

8. Weisaeth L. En industrikatastrofe. Katastrofeadferden og de posttraumatiske stressforstyrrelsene. Tidsskr Nor Lægeforen 1986; 106: 2220–4. [PubMed]

9. Hytten K. Studies on stress and coping: Psychosocial and physical dangers: Establishment and manifestations of positive response outcome expectancies. Doktoravhandling. Universitetet i Oslo, 1989.

10. Frankl VE. Vilje til mening. Arneberg, 2007.

11. Norges Offentlige Utredninger. Informasjonskriser. NOU 1986:19. https://www.regjeringen.no/globalassets/upload/kilde/odn/tmp/2002/0034/ddd/pdfv/154617-nou1986-19.pdf Accessed 12.5.2020.

12. Larsen Ø, Evensen SA, Gradmann C. Tsjernobylulykken og Norge – katastrofe eller lærepenge? Michael 2011; 8: 5–18.

13. Dodgen D, Herbert W, Kaul RE. Risk communication in disasters. Promoting resilience. I: Ursano RJ, Fullerton CS, Weisæth L et al, red. Textbook of Disaster Psychiatry. Cambridge: Cambridge University Press, 2017: 162–80.

14. Antonovsky A. Health, stress and coping. New perspectives on mental and physical well-being. San Fransisco, CA: Jossey-Bass, 1979.

Published: 29 June 2020. Tidsskr Nor Legeforen. DOI: 10.4045/tidsskr.20.0346
Received 20.4.2020, first revision submitted 27.4.2020, accepted 12.5.2020.
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