

Social context of pain. The effect of social information concerning pain on pain experience and pain memory

Pain is a complex phenomenon. The experience of pain is the effect of both sensory and psychological factors, including anxiety, distress, expectancy etc. Among many factors influencing pain experience, memories of previous pain experiences seem to play an important role. It has been proved that the memory of pain rather than initial pain experience affects subsequent pain experiences. Memory of pain influences also future decisions concerning pain, including the willingness of patients to undergo future painful medical procedures. Moreover, memory of pain may contribute to development of chronic pain. Thus, the way we remember pain seems to determine the way we experience pain in the future.

What if the memory of pain is inaccurate? Many previous studies have found that recalled pain might be either underestimated or overestimated. When remembered pain is underestimated, less pain would be experienced in the future and one would be more eager to undergo future painful medical procedures. On the other hand, when remembered pain is overestimated, more pain would be experienced in the future and one would be less eager to undergo future painful medical procedures. Thus, future pain might become worse or better depending on the direction of the distortions of the pain memory. Unfortunately, little work has been done so far to investigate the possibility of modifying intentionally the memory of pain and the effects of such modification on future pain experiences. These are the aims of the current research project.

Human is a social animal. We learn not only from direct experience, but also from observation of other people's experiences. There is a growing body of evidence that the observation of other people experiencing pain influences the pain experience of the observer. Moreover, the results of the three recent studies have proved that the observation of other people experiencing pain is not needed for the influence of other people's pain experience on our pain experience. It was found that so called vicarious social information, i.e. information supposed to come from other people, affected pain experience. The current research project is aimed to extend these results by studying the effects of social information coming from people with whom participants identify more or less on pain experience. However, the main aim of the research project is to investigate whether social information can modify the memory of pain and – in consequence – has an effect on subsequent pain experiences.

The results of the research project may have relevance in clinical practice. In daily life people acquire both direct and vicarious social information concerning pain from different sources, i.e. physicians, other patients, relatives, acquaintances, social media and so on. This project can contribute to a better understanding of how the vicarious information shapes pain experience and the memory of pain. In consequence, the results of the project may help to develop strategies for modification of pain experience and pain memories, which may be used for prevention and management of clinical pain.