

Breast cancer is the most common type of cancer in the world. Although it can be diagnosed quickly and treated effectively thanks to the development of medicine, it leaves a huge mark on patients' mental health. They are prone to depression and anxiety disorders, and almost all of them experience great sadness and stress at least at some stage of illness. Many studies show that in a moment of crisis, people who can notice and appreciate even small positive things in their lives and the world around them recover faster and get over this crisis better. It can be said that this is a skill that protects our psychological well-being and makes us more satisfied with our lives, healthier, less anxious, and functioning better on daily basis. The worse our well-being is, the more benefits we can derive from focusing on appreciating what we have in life - thus, practicing gratitude. Therefore, it is worthwhile to study how gratitude can be practiced to gain the most health benefits - especially in those who need it most, for example cancer patients.

The main goal of the proposed research is to expand existing knowledge and understanding of how gratitude enhances the psychological well-being of breast cancer patients. Although studies have shown a link between gratitude and well-being, it was mainly through correlational studies that did not explain how gratitude is related to well-being, what mechanisms may be involved in this relationship, and how patients can train gratitude to get most out of it. An in-depth investigation of these issues requires an experiment of several weeks in which effective gratitude training is applied.

Unfortunately, most researchers studying the effects of practicing gratitude on health use a single, repetitive activity (such as writing out daily reasons to be grateful). It turns out that the power of such gratitude training is not as great as expected - repeating one exercise over a long period can be too monotonous, too intensive, and sometimes even boring. Recent literature shows that much better results come from training a variety of positive skills in a way that is tailored to the trainee (their preferences, characteristics, circumstances) and varied enough to keep engagement and motivation high. Therefore, the proposed study will use an original, complex gratitude intervention with various tasks tailored to each participant. This will be the first intervention of its kind in a study with cancer patients. We will test its efficiency with multiple measurements throughout the study, including two follow-up measurements to see how long the effects last.

We predict that patients who practice gratitude for six weeks will function better after the study than before the study (e.g., in terms of well-being, levels of depression, anxiety, acceptance of illness, and stress coping). We also predict that the higher the motivation, commitment, and effort put in gratitude practice, the better the effect. In addition, we hypothesize that practicing gratitude through the proposed intervention affects patients' well-being comparable to a well-known and studied intervention, i.e. mindfulness training. We expect that participants in both the gratitude and mindfulness practices will function better than participants in the control group, as measured on a weekly basis and after the study.

The project is innovative on both Polish and international grounds, as little research has been devoted to the mental processes of oncological patients in the light of positive psychology - especially with the approach used in the project, which combines several research methods. The proposed project will provide a deeper understanding of the mental processes involved in feeling gratitude in illness. The results will form the basis for several papers on the effect of gratitude in breast cancer patients, the effectiveness of the original gratitude intervention, and the nature of the causal relationship between gratitude and well-being. These papers may contribute to a greater understanding of how gratitude can work to benefit cancer patients. Moreover, comparing the proposed gratitude intervention to a widely studied, well-established positive training (here, mindfulness training) would be a significant addition to the literature, as no previous study has demonstrated this in a clinical sample.

Given that the incidence of breast cancer is steadily increasing, it is essential to keep gaining new knowledge about what factors can promote patients' mental health and how to effectively enhance these factors. Protecting the well-being of cancer patients, especially during a stressful time of illness, is a fundamental goal of modern science. It is crucial to study the effectiveness of various forms of interventions and resources that promote good functioning for those affected by these diseases - and gratitude has the potential to be such a resource. We believe that the project will contribute to showing cancer patients that their lives, full of tragedy, abound in areas, people, and things for which they can feel gratitude- despite everything.