

FIGHTING AGAINST CANCER DOESN'T STOP WITH BEATING THE CANCER ALONE

The struggle with perceived injustice

EVA ROOSE

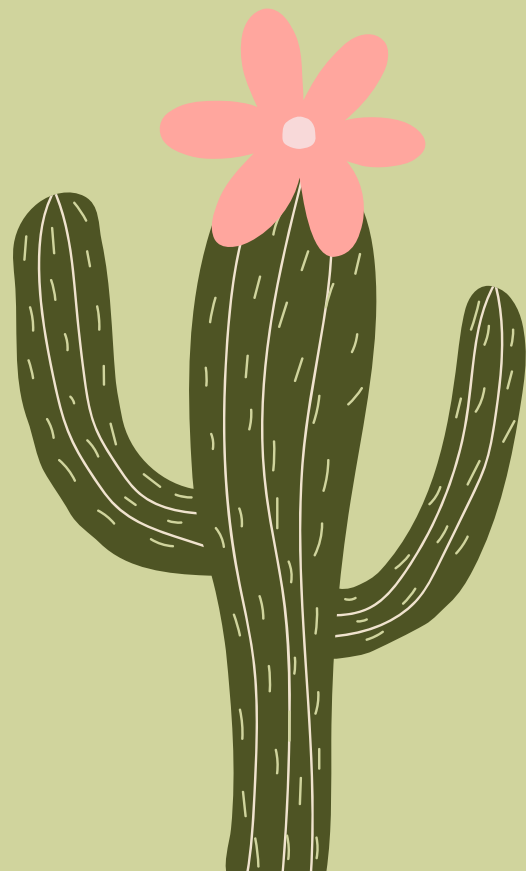
Public PhD defence for the degree of Doctor in
Rehabilitation Sciences and Physiotherapy

2nd October 2025 at 17:30

VUB, Campus Jette, Auditorium 3

Please use [this online form](#) to indicate your online or physical presence for the defence and/or reception afterwards by Thursday 25/09/2025.

The public defence is organized in collaboration with the oncology symposium and will be held in Dutch. It will serve as the closing lecture of the symposium, with the jury members presenting earlier in the program. All information about the symposium can be found [here](#).



ABSTRACT OF THE RESEARCH

Cancer survivorship is rising due to improved treatments, but many survivors face side effects, particularly chronic pain, which significantly reduces quality of life and increases healthcare use. Perceived injustice (PI), feelings of unfairness, irreparable loss, and blame, has been linked to negative outcomes such as higher pain intensity, disability, depression, and opioid use in other pain populations, but has been scarcely studied in cancer survivors.

This thesis aims to advance cancer survivor care by examining the role of perceived injustice (PI) among survivors, particularly breast cancer survivors experiencing pain, and by exploring potential interventions to improve pain management after cancer.

Part I provides a comprehensive overview of the prevalence and correlates of PI in pain populations. A systematic review and meta-analyses (**Chapter 1**) revealed that PI is prevalent in 23–77% of people with pain and is significantly associated with psychological factors, pain intensity, quality of life, personal characteristics, injury-related factors, and recovery outcomes. These findings informed the subsequent investigation of PI in cancer survivors.

Part II focuses on PI in cancer survivors. **Chapter 2** establishes a population-specific cut-off (≥ 20 on the Injustice Experience Questionnaire) to identify relevant levels of PI in cancer survivors and explores its associations with personal factors, pain, fatigue, and quality of life. **Chapter 3** investigates the relationship between PI and pain severity in BCS with pain, revealing that PI indirectly influences pain mainly through pain catastrophizing. **Chapter 4** examines psychological factors, including PI, related to healthcare use, demonstrating that higher levels of PI, pain catastrophizing, and psychological distress are linked to increased healthcare utilization, particularly provider visits, whereas positive illness perceptions reduce healthcare use.

Part III explores interventions targeting PI. **Chapter 5** highlights the importance of two-way communication while providing pain science education to shift the focus from feelings of injustice toward meaningful life goals and promote behavioral change. **Chapter 6** presents the protocol for the BCS-PI trial, a multicenter randomized controlled trial comparing PI-targeted pain science education with biomedically-focused pain education in BCS with pain and PI.

Overall, this thesis provides new insights into the role of PI in (breast) cancer survivorship, identifying it as a relevant factor influencing pain outcomes and healthcare use. Targeting PI through evidence-based behavioral interventions may offer a promising approach to improve pain management and quality of life in among cancer survivors.

CURRICULUM VITAE



Eva Roose (born March 28, 1997) obtained her master's degree in 2020 in Rehabilitation Sciences and Physiotherapy at the Vrije Universiteit Brussel (VUB). In the same year, she began her PhD research at VUB and Universiteit Hasselt (UH), funded by Belgium's largest cancer charity, Stand up to Cancer (Kom op Tegen Kanker). Eva has (co-)authored over 18 peer-reviewed publications and currently presented her work at 14 national and international conferences. She has actively mentored 15 master's theses, 4 Honours College students, and is supervising the PhD of an international researcher. During her PhD, she contributed extensively to science communication and patient involvement. Clinically, she treats adults and children with chronic pain at the University Hospital Brussels (UZ Brussel) and worked as a therapist in the clinical trial she was running during her PhD. She also co-coordinates the oncology research line of Pain in Motion, is part of the Pain in Motion management team, and has organized and contributed to multiple international scientific congresses, masterclasses, and (social) events.

Eva is dedicated to advancing research and clinical care within oncology settings through innovative research, evidence-based clinical care, and active engagement with patients and the wider scientific community.

*"From a resilient cactus to a blooming flower:
helping patients truly flourish in cancer care."*

PROMOTORS

Prof. dr. Jo Nijs (VUB)

Prof. dr. Annick Timmermans (UH)

CO-PROMOTORS

Prof. dr. David Beckwée (VUB)

Prof. dr. Eva Huysmans (VUB)

Prof. dr. Paul van Wilgen (VUB)

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