

Alice Calori Filisetti ¹
Isabela Maria Freitas Ferreira ²
Carmem Beatriz Neufeld ¹

The Relationship between Self-Efficacy and Self-Compassion: An Integrative Systematic Review of the Literature

A relação entre autoeficácia e autocompaixão: uma revisão sistemática integrativa da literatura

ABSTRACT

The literature demonstrates that both self-efficacy and self-compassion are constructs negatively related to the development of psychopathology and positively related to different spheres of mental health and well-being. The objective of this study was to carry out an integrative systematic literature review to investigate how the literature addresses the relationship between self-efficacy and self-compassion. Based on the search carried out in 7 databases, 45 scientific articles were included in this review, the main results of which confirm the association between the constructs, indicate a lack of Brazilian literature and the contemporary nature of the topic. Forty-three articles found a significant relationship between the two constructs, varying in terms of the degree and nature. The theoretical explanations behind the association found are, for the most part, unidirectional paths through which self-compassion influences self-efficacy. It is important to stress the need for future research to explore the bidirectionality of this relationship. Finally, it is possible to conclude that the literature demonstrates that these constructs are positively and significantly related. Furthermore, this review points to the need to encourage and diversify research in the area and suggests that future interventions consider the relationship between both constructs.

Keywords: Self Efficacy, Self-Compassion, Review.

RESUMO

A literatura demonstra que tanto a autoeficácia quanto a autocompaixão são construtos relacionados negativamente com o desenvolvimento de psicopatologias e positivamente com diferentes esferas de saúde mental e bem-estar. O objetivo deste estudo foi realizar uma pesquisa baseada no método de revisão bibliográfica sistemática integrativa para investigar como a literatura aborda a relação entre autoeficácia e autocompaixão. A partir da busca realizada em sete bases de dados, foram incluídos 45 artigos científicos cujos principais resultados confirmam a associação entre os construtos, indicam a escassez de literatura nacional e o caráter contemporâneo do tema. Um total de 43 artigos encontraram relação significativa entre os dois construtos, variando quanto ao grau e a natureza dessa relação. As explicações teóricas por trás da associação encontrada se dão, em sua maioria, por caminhos unidirecionais, nos quais a autocompaixão influi sobre autoeficácia, sendo importante que futuras pesquisas explorem a bidirecionalidade dessa relação. Por fim, é possível concluir que a literatura demonstra que esses construtos estão positiva e significativamente relacionados. Além disso, esta revisão aponta para a necessidade de incentivar e diversificar as pesquisas na área e sugere que futuras intervenções levem em consideração a relação entre os dois construtos.

Palavras-chave: Autoeficácia, Autocompaixão, Revisão.

¹ Universidade de São Paulo, Faculdade de Filosofia Ciências e Letras de Ribeirão Preto, Departamento de Psicologia - Ribeirão Preto - SP - Brazil.

² Universidade de São Paulo, Programa de Pós-graduação em Psicologia - Ribeirão Preto - SP - Brazil.

Correspondence:

Alice Calori Filisetti.
E-mail: alice.calori.silva@alumni.usp.br

Funding source: Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) – Bolsa regular a nível de iniciação científica para a primeira autora (processo nº 2020/09368-4) e bolsa produtividade do Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPQ) para a terceira autora (processo nº 307703/2020-7).

Responsible publisher:

Angela Donato Oliva.
Trabalho vencedor na categoria Monografia de Graduação do Prêmio Monográfico Bernard Rangé do ano de 2022

This paper was submitted to the RBTC SGP (Management Publications System) on October 3, 2023. cod. 431.
Article accepted on November 16, 2023.

DOI: 10.5935/1808-5687.20230044-en

INTRODUCTION

According to Bandura (1986, p. 391), “the perception of self-efficacy refers to an individual’s belief in their capacity to organize and execute the courses of action required to produce certain achievements.” In other words, the self-efficacy belief is related to an individual’s perception/judgment of their own capabilities, that is, their competence to act in a certain way in a particular situation (Pervin & Jonh, 2004).

For Social Cognitive Theory, the foundation of the effects of self-efficacy lies in the fact that people are guided by their beliefs (what they believe) in their relationship with the world; through these beliefs, they make choices, define their actions and express emotions, among other things (Pajares & Olaz, 2008). Therefore, an individual’s level of conviction in their own efficacy is likely to affect how they deal with certain situations (Bandura, 1977).

There is substantial empirical evidence from various fields of knowledge on how self-efficacy beliefs influence human functioning. Self-efficacy has been linked to health behaviors (Sugiharto, 2023; Gangwani et al., 2022), learning (Klassen & Klassen, 2018), motivation (Gangwani et al., 2022; Williams & Rhodes, 2016), athletic performance (Machado et al., 2014), academic achievement (Honicke & Broadbent, 2016), among others. In the field of mental health, self-efficacy has been shown to be negatively related with anxiety and depression (Yeo et al., 2023; Bassi et al., 2023; Soysa & Wilcomb, 2015).

According to Kristin Neff, self-compassion is a way of relating to oneself that involves treating oneself with the same kindness, understanding, and support one would give to a good friend (Neff et al., 2014; Neff, 2010). The self-compassionate attitude involves cultivating feelings of care, understanding, and kindness toward oneself and using them to respond to personal suffering and negative aspects of oneself (Neff, 2003; Castilho & Gouveia, 2011). In this sense, it is possible to disassociate from unrealistic expectations of perfection and accept mistakes as a human condition (Neff, 2010).

According to Neff (2010), self-compassion involves three positive components that interact with one another to create a self-compassionate state, as well as three opposing negative elements: 1-self-kindness versus self-judgment, 2-a sense of common humanity versus isolation, 3-mindfulness versus over-identification (Neff et al., 2014; Neff, 2003). Self-kindness involves being gentle, understanding, and caring toward oneself, as opposed to displaying a harsh and self-critical posture that is based on judgment (Neff et al., 2014). A sense of common humanity involves seeing one’s own experiences (including personal difficulties and deficiencies) as part of the broader human experience, thus creating a sense of connection with others, as opposed to isolation, alienation, and tendencies of suffering (Neff et al., 2014; Neff, 2010). Mindfulness concerns the ability to maintain a balanced awareness of the present moment, without ignoring suffering but also without exaggera-

ting it. Through mindfulness, one also avoids over-identifying with the negative aspects of oneself or one’s life, a tendency of many individuals facing negative personal experiences (Neff et al., 2014; Neff, 2010).

Self-compassion leads individuals to exhibit proactive behaviors of exploration, affiliation, engagement, and self-care. Furthermore, it promotes positive mental states related to optimism and joy (Neff, 2010) and is positively associated with well-being and inversely associated with psychopathologies such as anxiety and depression (Yeo et al., 2023; Bassi et al., 2023; Soysa & Wilcomb, 2015; Bernard and Curry, 2011). Additionally, a variety of studies have demonstrated that self-compassion is related to resilience (Bluth, Mullarkey & Lather 2018; Trompeter et al., 2017), as it plays a mediating role in reactions to difficult situations.

Self-efficacy and self-compassion are constructs that have been studied academically due to their impact and influence on various domains of human functioning and mental health. Since both are negatively associated with the development of psychopathologies and positively associated with different aspects of mental health and well-being, a better understanding of how they relate with each other has positive implications to disease prevention and health promotion.

In recent decades, literature has shown associations between self-efficacy and self-compassion (Liao et al., 2021). However, given the preliminary and diverse nature of these publications, an integrative systematic review on the relationship between the two constructs is needed to systematize the results found so far. This integrative systematic review aims to facilitate access to a to a summarization of the findings already published in the field, for use by the scientific community, future researchers seeking gaps in knowledge and for professionals from different areas looking for foundation for their work. The aim of this study was to conduct an integrative systematic literature review to investigate how the literature addresses the relationship between self-efficacy and self-compassion.

METHOD

This study follows the method of an integrative systematic literature review. According to Botelho et al. (2011), this research method can be divided into 6 stages: 1- identification of the theme and selection of the research question; 2- establishment of inclusion and exclusion criteria; 3- identification of pre-selected and selected studies; 4- categorization of selected studies; 5- analysis and interpretation of results; 6- presentation of the review/summary of knowledge.

The research question was defined based on the PICO strategy, an acronym that stands for Population, Intervention, Comparison of interventions, and Outcomes, with these components being important in constructing a well-formulated research question for bibliographic evidence search (Santos et al., 2007). The research question defined was: “how does

the literature address the relationship between self-efficacy and self-compassion?" The established search strategy included a bibliographic search of studies published in seven databases, namely: PsycINFO, Portal de Periódicos Capes, LILACS, SciELO, PubMed, PEPsic, and Web of Science. Data collection was conducted from pairs of descriptors combined through the Boolean operator "AND" in three different languages (Portuguese, English, and Spanish), as follows: "self-efficacy" AND "self-compassion"; "autoeficácia" AND "autocompaixão"; "autoeficacia" AND "autocompasión." These pairs of descriptors were searched for in the abstract, keywords, or subject categories, depending on the specifics of each database. The search was conducted on a computer connected to the Virtual Private Network [VPN] of the University of São Paulo, as this allows greater accessibility to databases.

To answer the research question as comprehensively as possible, no limits were placed on the publication dates, and the inclusion and exclusion criteria sought to be as inclusive as possible. This led to the inclusion of scientific articles of any type of design in three languages (Portuguese, English, and Spanish), published until September 2023, with no established start date. In order to ensure coherence and focus on the pre-established research question, articles with abstracts that did not mention one or either of the descriptors or that did not address the relationship between self-efficacy and self-compassion were excluded.

The articles included in this review were examined in relation to specific analysis categories: 1) year of publication; 2) place where it was developed; 3) sample population; 4) subcategory of the self-efficacy or self-compassion constructs; 5) level of evidence; 6) whether or not the main objective was to find the relationship between self-efficacy and self-compassion; 7) to have found, or not, results on a direct or indirect relationship between the constructs; 8) theoretical discussion presented on the relationship between the constructs.

Two instruments were developed to ensure greater precision and methodological rigor in data extraction: a filing table and a summary matrix. The filing table was used upon selecting the corpus of analysis and applying the inclusion and exclusion criteria, making it possible to ensure clear criteria and assisting in minimizing errors during this stage. The summary matrix was developed during the process of extracting, analyzing, and summarizing results, serving as a categorization system, according to analytical categories defined by the researcher (Botelho et al., 2011; *Ânima Educação*, 2014). From the summary matrix, the main results were analyzed, summarized, and discussed descriptively and interpretatively, dialoguing with the literature already published on the subject. To critically evaluate the evidence of the selected studies, this study used the classification adopted by Souza, Silva, and Carvalho (2010), which describes 6 levels of evidence.

RESULTS

CHARACTERIZATION OF INCLUDED STUDIES

The initial search returned 314 articles across the seven databases. After identification of duplicates, 124 articles were excluded, with 190 moving on to the screening stage. Based on the filing table and the inclusion and exclusion criteria, 145 articles were excluded at this stage, with 45 articles remaining. The stages of the search strategy and the selection process leading to the corpus of the integrative systematic review can be seen in Figure 1, developed from the Preferred Reporting Items for Systematic Review and Meta-analysis method (PRISMA) (Page et al., 2021). The last search was conducted in September 2023. The screened studies included a correction to a previously published article; as such, the correction was considered to be the updated version of the article and was included instead of the original version (Jang, Smith & Duys, 2021a; Jang, Smith & Duys, 2021b).

Some of the main information from the 45 articles included in this review was extracted and summarized in Table 1 and Table 2. Furthermore, the second table summarizes the most notable results found in the studies on the relationship between self-efficacy and self-compassion. It should be noted that the table was created by the authors to summarize the main results concisely; as such, the individual studies should be read in full for more in-depth and additional results.

Some features of the articles included in the analysis can be highlighted. Most articles were published over the last decade, with the exception of two (Iskender, 2009; Pinto-Gouveia et al., 2012). Furthermore, the majority of them were published in the last 5 years ($n=36$). Only three articles are from South America, specifically from Brazil (Pereira & Silva, 2022; Souza & Hutz, 2016a; Souza & Hutz, 2016b). The remaining 42 come from other continents, with a prevalence of studies from North America ($n=19$). Some patterns can be identified upon analyzing the sample of the studies that included a sample population. Thirty studies had a predominantly female sample composition; in some cases, the sample was 100% composed of women, as in the articles by Chasson and Ben-Ari (2022) and Abdoli et al. (2020). Sixteen articles have a very specific sample population, university students, as in the case of studies conducted by Jang et al. (2021) and Chow and Hui (2020).

In relation to the concepts of self-efficacy and self-compassion, definitions were primarily identified based on two authors: Kristin Neff (self-compassion) and Albert Bandura (self-efficacy). In certain studies, both constructs appeared with different "forms" or "subcategories." Self-efficacy was subcategorized in 27 articles, including academic self-efficacy, social self-efficacy, and self-efficacy for personal growth. Self-compassion was subcategorized in 7 studies, including academic self-compassion, social self-compassion, and the state of self-compassion. Additionally, a variety of instruments were used to measure self-efficacy and self-compassion.

PRISMA FLOW OF THE PROCESS OF IDENTIFICATION, SCREENING AND INCLUSION OF ARTICLES

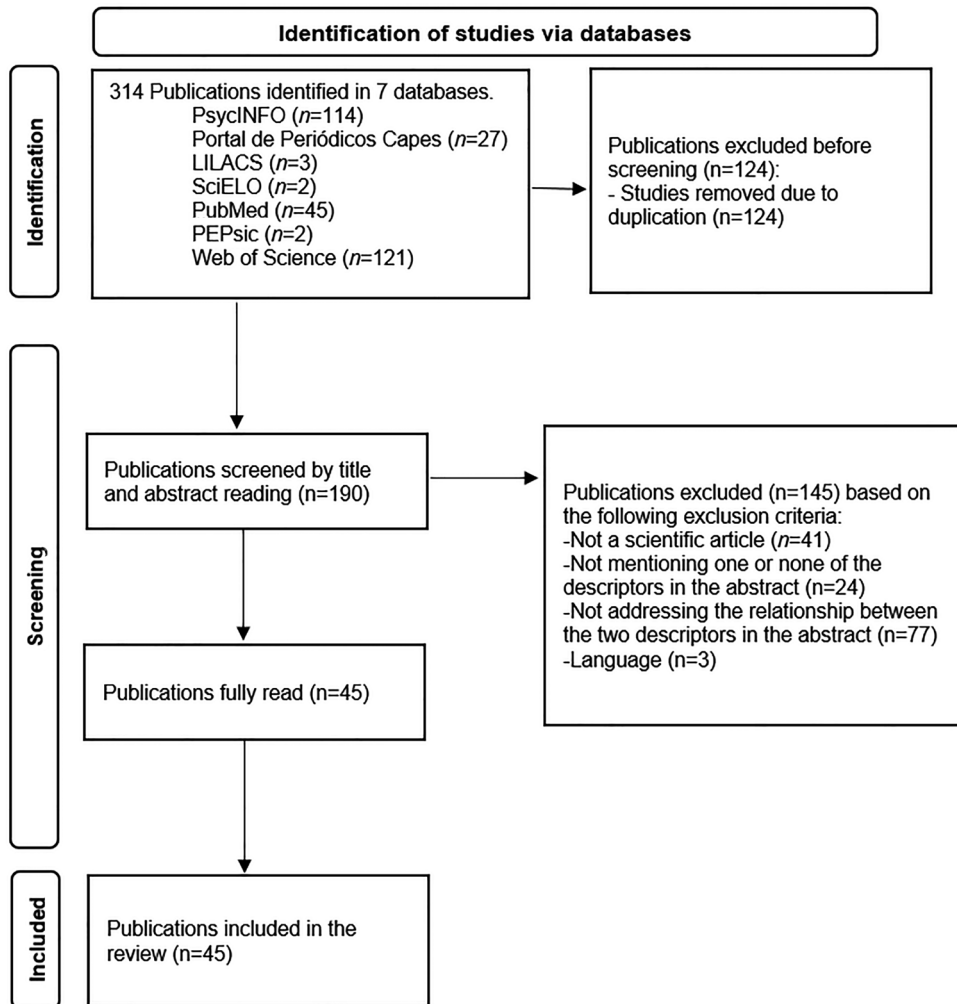


Figure 1. PRISMA flowchart of the processes of identification, eligibility and inclusion of articles in the review.

Evidence from the majority of the studies in the analysis (n=30) is categorized as level 4: evidence from descriptive (non-experimental) or qualitative studies. Only 12 articles were intervention-based, divided between two levels of evidence: quasi-experimental studies (level 3) and individual studies with experimental designs (level 2). Two articles were literature reviews, and one was a theoretical study on the topic.

RESULTS REGARDING THE RELATIONSHIP BETWEEN SE AND SC IN THE INCLUDED STUDIES

The objectives varied across the studies, with only 15 articles aiming to explore the relationship between SE and SC as their primary objective. The remaining articles (n=30) had other primary objectives, with the relationship between self-efficacy and self-compassion investigated secondarily. Nevertheless, 95.5% of the studies (n=43) found a positive

relationship between self-efficacy and self-compassion, while only 2 did not find a significant relationship between the constructs. The relationship was mainly direct, but 3 studies found, in addition to a direct relationship, an indirect relationship between SE and SC (mediated by another variable), and one study found only an indirect relationship between the constructs. The relationships identified varied in terms of nature and degree. Relationships of correlation, prediction, and mediation were identified with different degrees and specificities, as can be seen in Table 2.

Despite 43 studies finding a relationship between SE and SC, not all of them discuss the relationship found, elucidating its nature, foundation, and the pathways through which the two constructs relate. Different approaches to discussing the relationship between SE and SC can be observed across the studies, and some similarities can be highlighted.

Table 1. Characterization of included studies.

| N° | Nome | Authors | Year | Population (general) |
|------|--|--|------|--|
| I | How does trait self-compassion benefit self-control in daily life? An experience sampling study. | Tak Sang Chow & Chin Ming Hui | 2020 | University students |
| II | Self-compassion as an intrapersonal resource of perceived positive mental health outcomes: A thematic analysis. | Gyanesh Kumar Tiwari, Rakesh Pandey, Pramod Kumar Rai, Ruchi Pandey, Yogendra Verma, Priyanka Parihar, Geeta Ahirwar, Ari Sudan Tiwari & Satchit Prasun Mandal | 2020 | University students |
| III | Impact of mindfulness-based cognitive therapy on counseling self-efficacy: A randomized controlled crossover trial. | Sunny H. W. Chan, Calvin Kai-Ching Yu & Alex W. O. Li | 2021 | University students |
| IV | The social self-compassion scale (sscs): Development, validity, and associations with indices of well-being, distress, and social anxiety. | Alison L. Rose & Nancy L. Kocovski | 2020 | University students |
| V | Rationale, methods, feasibility, and preliminary outcomes of a transdiagnostic prevention program for at-risk college students. | Anne S. Burke, Benjamin G. Shapero, Andrea Pelletier-Baldelli, Wisteria Y. Deng, Maren B. Nyer, Logan Leathem, Leah Namey, Carrie Landa, Corinne Cather & Daphne J. Holt | 2020 | University students with mild to moderate symptoms of depression and/or psychotic experiences. |
| VI | Test of a social cognitive model of well-being among breast cancer survivors. | Trisha L Raque-Bogdan, Robert W Lent & Brooke Lamphere | 2019 | Women survivors of breast cancer |
| VII | Examining the importance of academic-specific self-compassion in the academic self-control model. | Rebecca D. Martin, Deborah J. Kennett & Nicholas M. Hopewell | 2019 | University students |
| VIII | Examining the relationship between math self-efficacy and statistics motivation in the introductory business statistics course: Self-compassion as a mediator. | Leslie Ramos Salazar | 2018 | University students taking basics business statistics courses |
| IX | Does a short self-compassion intervention for students increase healthy self-regulation? A randomized control trial. | Ingrid Dunas, Per-Einar Binder, Tia G. B. Hansen & Signe Hjelen Stige | 2017 | University students |
| X | Self-compassion in relation to self-esteem, self-efficacy and demographical aspects. | Luciana Karine de Souza & Claudio Simon Hutz | 2016 | General public: people aged 18 to 66 |
| XI | The role of self-compassion and control belief about learning in university students' self-efficacy. | Davood Manavipour & Yasser Saeedian | 2016 | University students |
| XII | Good for the self: Self-compassion and other self-related constructs in relation to symptoms of anxiety and depression in non-clinical youths. | Peter Muris, Cor Meesters, Anna Pierik & Bo de Kock | 2016 | High school students |
| XIII | Self-compassion in Brazilian women and relations with self-esteem, self-efficacy and demographic aspects. | Luciana Karine de Souza & Claudio Simon Hutz | 2016 | Women |
| XIV | Meeting suffering with kindness: Effects of a brief self-compassion intervention for female college students. | Elke Smeets, Kristin Neff, Hugo Alberts, & Madelon Peters | 2014 | Female university students |
| XV | The relationship between self-compassion, self-efficacy, and control belief about learning in Turkish university students. | Murat Iskender | 2009 | University students |
| XVI | Effects of Self-Compassion and Social Support on Lesbian, Gay, and Bisexual College Students' Positive Identity and Career Decision-Making | Hansori Jang, Hongryun Woo & Injung Lee | 2020 | Estudantes universitários LGBT |

| | | | | |
|--------|---|--|------|---|
| XVII | Exploring the relationship between self-compassion and body dysmorphic symptoms in adolescents | Luke M. Allen, Carly Roberts, Melanie J. Zimmer-Gembeck & Lara J. Farrell | 2020 | Elementary school and high school students |
| XVIII | The effects of self-compassion education on the self-efficacy of the clinical performance of nursing students | Mahin Moeini, Esmaeil Sarikhani- Khorrami & Amir Ghamarani. | 2019 | Nursing university students |
| XIX | Does self-compassion help to deal with dietary lapses among overweight and obese adults who pursue weight-loss goals? | Cecilie Thøgersen-Ntoumani, Louisa A. Dodos, Andreas Stenling & Nikos Ntoumanis | 2020 | Overweight adults |
| XIX | Does self-compassion help to deal with dietary lapses among overweight and obese adults who pursue weight-loss goals? | Cecilie Thøgersen-Ntoumani, Louisa A. Dodos, Andreas Stenling & Nikos Ntoumanis | 2020 | Overweight adults |
| XX | The effect of self-compassion training on craving and self-efficacy in female patients with methamphetamine dependence: a one-year follow-up | Nasrin Abdoli , Vahid Farnia , Farnaz Radmehr, Mostafa Alikhani, Mehdi Moradiazar, Mehdi Khodamoradi, Safora Salemi a , Mansour Rezaei & Omran Davarinejad | 2020 | Female methamphetamine users |
| XXI | Correction to: LGB identity and career decision-making self-efficacy among sexual minority college students | Hansori Jang, Carol K. Smith & David K. Duys | 2021 | LGB University students |
| XXII | Effectiveness of a Positive Writing Intervention for Chronic Pain: A Randomized Trial | Kathryn Schaefer Ziemer, Amy Fuhrmann & Mary Ann Hoffman | 2015 | Individuals with chronic pain |
| XXIII | Protective emotional regulation processes towards adjustment in infertile patients | José Pinto-Gouveia, Ana Galhardo, Marina Cunha & Marcela Matos | 2012 | Infertile couples |
| XXIV | Predicting undergraduate student outcomes: Competing or complementary roles of self-esteem, self-compassion, self-efficacy, and mindsets? | Loise Wasylikiw, Sophie Hanson, Laurence Macrae Lynch, Elise Vaillancourt & Chelsea Wilson | 2020 | University students enrolled in Introductory Psychology |
| XXV | A self-regulation resource model of self-compassion and health behavior intentions in emerging adults | Fuschia M. Sirois | 2015 | Emerging adults |
| XXVI | Mindful Mentors: Is a Longitudinal Mind–Body Skills Training Pilot Program Feasible for Pediatric Cardiology Staff? | Vicki A Freedenberg, JiJi Jiang, Carla A Cheatham, Erica MS Sibinga, Cynthia A Powell, Gerard R Martin, David M Steinhorn, & Kathi J Kemper | 2020 | Cardiology team: nurses, doctors, technicians, social workers, child life specialists |
| XXVII | A meta-analysis of the relation between self-compassion and self-efficacy | Kelly Yu-Hsin Liao, & Graham B. Stead & Chieh-Yu Liao | 2021 | Literature review study, therefore without a specific sample population. |
| XXVIII | Perceived social support and life satisfaction in infertile women undergoing treatment: A moderated mediation model | Xiyang Chu, Yaoguo Geng, Ruiping Zhang & Wenjing Guo | 2021 | Women with primary or secondary infertility |
| XXIX | A systematic review of self-compassion in chronic pain: From correlation to efficacy. | Camile Lanzaro, Sérgio A. Carvalho, Teresa A. Lapa, Ana Valentim & Bruno Gago | 2021 | Literature review study, therefore without a specific sample population |
| XXX | The contribution of childhood experiences, maternal disintegrative responses, and self-compassion to maternal self-efficacy and role satisfaction: A prospective study. | Miriam Chasson & Orit Taubman – Ben-Ari | 2022 | Women with babies up to 16 weeks of age |
| XXXI | When you try your best to help but don't succeed: How self-compassionate reflection influences reactions to interpersonal helping failures. | Yu Tse Heng & Ryan Fehr | 2022 | Full-time employees |
| XXXII | Developing resilience from attachment anxiety/avoidance: The roles of self-compassion and self-efficacy in an adolescent sample in the U.S. | Ming-hui Li & Danielle Preziosi | 2022 | Teenagers |

| | | | | |
|---------|---|---|------|---|
| XXXIII | Psychological functioning and well-being before and after bariatric surgery; what is the benefit of being self-compassionate? | Johanna Eveliina Pyykkö, Ömrüm Aydin, Victor E. A. Gerdes, Yairi. Z. Acherman, Albert K. Groen, Arnold W. van deLaar, Max Nieuwdorp, Robbert Sanderman & Mariët Hagedoorn | 2022 | People who have had bariatric surgery |
| XXXIV | The relationship between mindfulness and self-compassion for self-assessed competency and self-efficacy of psychologists-in-training. | Chelsea Latorre, Monica Leppma, Lisa F. Platt, Natalie Shook & Jeffrey Daniels | 2023 | Doctoral students enrolled in counseling psychology and clinical psychology programs |
| XXXV | Paternal attachment in the first five years: The role of self-compassion, negative emotional symptoms, parenting stress, and parent self-efficacy. | Vincent O. Mancini, Mia De Palma, James L. Barker, Sohail Kharrazi1, Elizabeth Izett, Rosanna Rooney & Amy L. Finlay-Jones | 2023 | Fathers with at least one child under 5 years old |
| XXXVI | Self-compassion and pain disability in adults with chronic pain: The mediating role of future self-identification and self-efficacy | Erin G. Mistretta, Mary C. Davis, Eva M. Bartsch & Meryl S Olah | 2023 | Individuals with chronic pain |
| XXXVII | Does coping with pain help the elderly with cardiovascular disease? The association of sense of coherence, spiritual well-being and self-compassion with quality of life through the mediating role of pain self-efficacy | Nahid Salehi, Majid Yousefi Afrashteh, Mohammad Reza Majzooobi, Arash Ziapour, Parisa Janjani & Sahar Karami | 2023 | Elderly people with cardiovascular diseases |
| XXXVIII | Self-Compassion and Physical Activity: The Underpinning Role of Psychological Distress and Barrier Self-Efficacy | Shuge Zhang, Clare Roscoe & Andy Pringle | 2023 | Healthy adults |
| XXXIX | Positive Identity and Career Decision-Making Self-Efficacy: Implications for Pansexual, Asexual, Demisexual, and Queer College Students | Hansori Jang, Madeline Clark & Tanesha L. Walker | 2021 | Emerging sexual minority university students |
| XL | The effect of self-compassion-based programs for infertility (SCPI) on anxiety and depression among women pursuing fertility treatment: a three-armed, randomised controlled trial | Anne Njogu, Francis Kaburu, Julius Njogu, Emmanuel Barasa, Albanus Mutisya & Yang Luo | 2023 | Women dealing with infertility |
| XLI | Psychological well-being of midlife women: a structural equation modeling approach | Jiwon Lee & Jong-Eun Lee | 2022 | Middle-aged women in the late reproductive phase (pre-menopausal, peri-menopausal and post-menopausal stages) |
| XLII | Virtual Mindfulness Workshops for Parents of Children on the Autism Spectrum | Emily L. Curl & Lauren H. Hampton | 2023 | Primary caregivers in families with at least one young child on the autism spectrum |
| XLIII | The self-efficacy in distress tolerance scale (SE-DT): a psychometric evaluation | Sven Alfonsson, Karolina Mardula, Christine Toll, Martina Isaksson & Martina Wolf-Arehult | 2022 | People belonging to the non-clinical and psychiatric clinical category |
| XLIV | Can We Boost Treatment Adherence to an Online Transdiagnostic Intervention by Adding Self-Enhancement Strategies? Results From a Randomized Controlled Non-inferiority Trial | Andreea Bogdana Isbășoiu, Bogdan Tudor Tulbure, Andrei Rusu & Florin Alin Sava | 2021 | Individuals with at least one clinical diagnosis of major depressive disorder and/or generalized anxiety disorder and/or social anxiety disorder and/or panic anxiety disorder and/or agoraphobia and/or specific phobia or any combination of these conditions |
| XLV | Self-efficacy, Mindfulness and Self-compassion: Possible Interlocutions from Positive Psychology in Higher Education | Mara Dantas Pereira & Joilson Pereira da Silva | 2022 | Theoretical study, therefore without a specific sample population |

Table 2. Extraction of results from included studies.

| N° | Does it find a relationship between SC and SE? Direct or indirect? | Main results on the relationship between SE and SC |
|------|--|--|
| I | YES. Indirect | Trait-level self-compassion interacted with perceived difficulty in predicting self-efficacy. The negative effect of perceived difficulty on self-efficacy was found among participants with low self-compassion but not among those with high self-compassion. |
| II | YES. Not described | Self-compassion can promote the perception of self-efficacy or facilitate its achievement. |
| III | YES. Direct | The results suggest that a high level of self-compassion should lead to a higher level of Counseling Self-Efficacy Challenges. |
| IV | YES. Direct | 1- Moderate correlation between social self-compassion and perceived social self-efficacy (based on instrument scores). 2- The correlation between perceived social self-efficacy and scores on the Social Self-Compassion Scale remained significant after controlling for risk factor effects (self-criticism, social anxiety, and depression). 3- Regarding the prediction of perceived social self-efficacy, social self-compassion added an additional 6.8% of variance in perceived social self-efficacy scores. |
| V | YES. Direct | 1- Correlation between self-compassion and self-efficacy based on pre-intervention scores. 2- After the intervention (which included mindfulness self-compassion components), there was a significant increase in self-efficacy. |
| VI | YES. Direct | Positive correlation between self-compassion and self-efficacy for coping with cancer (based on instrument scores). |
| VII | YES. Direct | 1-Positive correlation between academic self-compassion and academic self-efficacy (based on instrument scores). 2- Positive correlation between general self-compassion and academic self-efficacy (based on instrument scores). 3- The positive correlations between academic self-efficacy and general self-compassion vs. academic self-compassion in both studies were not statistically different. 4- Finally, academic self-efficacy combined with 6 other variables predicted 37% of the variability in academic self-compassion scores. |
| VIII | YES. Direct | 1- Correlation between mathematical self-efficacy and self-compassion (based on instrument scores). 2- Additionally, self-compassion partially mediated the relationship between mathematical self-efficacy and statistical motivation. |
| IX | YES. Direct | 1- Correlation between self-compassion and personal growth self-efficacy (based on instrument scores). 2- Additionally, during the intervention, there was an increase in personal growth self-efficacy only for the intervention group, and this remained over time. The results showed that the increase in self-compassion was associated with gains in personal growth self-efficacy. |
| X | YES. Direct | Positive and significant correlation between self-efficacy and self-compassion (based on instrument scores). Thus, these are related constructs but do not represent the same phenomenon. |
| XI | YES. Direct | 1- General self-compassion and its three positive components individually (self-kindness, shared humanity, and mindfulness) showed positive correlations with self-efficacy (based on instrument scores). 2- Negative components of self-compassion (over-identification and isolation) were negatively associated with self-efficacy. |
| XII | YES. Direct | 1- General self-compassion and its three components individually (self-kindness, a sense of common humanity, and mindfulness) showed positive correlations with self-efficacy (based on instrument scores). 2- Among the components of self-compassion, mindfulness showed a stronger relationship with self-efficacy, while common humanity had the least clear correlation. |
| XIII | YES. Direct | Positive and significant correlation between self-compassion and self-efficacy (based on instrument scores). |
| XIV | YES. Direct | 1- Positive and significant correlation between self-compassion and self-efficacy (based on instrument scores). 2- The self-compassion intervention group showed significant pre-post increases in self-efficacy. The results showed that the increase in self-compassion significantly predicted increases in self-efficacy. |
| XV | YES. Direct | Results demonstrated significant relationships between 6 dimensions of self-compassion and self-efficacy. First, self-kindness, common humanity, and mindfulness were positively related to self-efficacy. Meanwhile, self-judgment, isolation, and over-identification were considered negatively related to self-efficacy. |
| XVI | YES. Direct | 1- Positive correlation between self-compassion and career decision-making self-efficacy (based on instrument scores). 2- Social support and self-compassion sequentially mediated the path between positive identity and career decision-making self-efficacy among bisexual individuals. |

| | | |
|--------|-------------|--|
| XVII | YES. Direct | 1- Significant positive correlation between self-compassion and self-efficacy (based on instrument scores). 2- Self-efficacy was positively related to self-centered perspective-taking (a set of the self-compassion scale that includes the 3 positive components of self-compassion: self-kindness, common humanity, and mindfulness). 3- Self-efficacy was negatively related to negative self-sense (a set of the self-compassion scale that includes the 3 negative components of self-compassion: self-judgment, over-identification, and isolation). |
| XVIII | YES. Direct | Significant difference between the average scores of overall clinical performance self-efficacy and its domains in the experimental group 1 month after the self-compassion intervention. |
| XIX | YES. Direct | 1- Positive correlation between self-efficacy and self-compassion state and trait-level self-compassion (based on instrument scores), with the former being more significant than the latter. 2- When participants reported higher levels of self-compassion state after a lapse in eating, they showed higher levels of self-efficacy to eat healthily and reported higher intentions to continue dieting, indicating that self-compassion can be a powerful internal resource to be cultivated to increase the self-efficacy of this population. |
| XX | YES. Direct | In the experimental group, the average post-intervention self-efficacy score increased significantly. The results showed that self-compassion training leads to an increase in self-efficacy for methamphetamine users. |
| XXI | YES. Direct | 1- Significant positive correlation between self-compassion and career decision-making self-efficacy (based on instrument scores). 2- Additionally, the significant direct relationship between self-compassion and career decision-making self-efficacy in LGB individuals was confirmed in the hypothetical structural model between research variables. |
| XXII | NO | Self-compassion and self-efficacy scores did not change significantly over time, on average, for either intervention group (neither the self-compassion writing group nor the self-efficacy writing group). Despite this, few differences were found between the two types of writing, and both types of writing led to similar results, indicating that self-efficacy and self-compassion may be similar enough topics to develop mutually, resulting in similar outcomes. |
| XXIII | YES. Direct | 1- Significant positive correlation between self-compassion and self-efficacy (based on instrument scores). 2- The proposed regression model was significant for women, with self-compassion emerging as the only significant overall predictor for self-efficacy. |
| XXIV | YES. Direct | 1- Significant positive correlation between self-compassion and self-efficacy (based on instrument scores). 2- The results indicate that self-compassion and self-efficacy moderately overlap. 3- Both constructs showed similar patterns of relationship with other variables. |
| XXV | YES. Direct | 1- Significant positive correlation between self-compassion and self-efficacy (based on instrument scores). 2- Self-compassion predicted the intentions of emerging adults to engage in health-promoting behaviors. Higher health self-efficacy and lower negative affect were significant self-regulation resources that, along with high positive affect, fully mediated this association. |
| XXVI | YES. Direct | The intervention, which included self-compassion as one of its bases, was feasible, acceptable and showed significant and statistically significant benefit for doctors in improving self-efficacy in providing non-drug therapies, with benefits sustained throughout the 12 months of the program. |
| XXVII | YES. Direct | 1- Effect size correlations (ES r) were statistically significant for the association between the total self-compassion score and self-efficacy, as well as between the different self-compassion subscales and self-efficacy. 2- Age was not a significant moderator between the total scores of self-compassion and self-efficacy and between the subscales of self-compassion and self-efficacy. 3- The type of sample (student or non-student) was not a statistically significant moderating variable for the total self-compassion and self-efficacy score, but it was a statistically significant moderating variable between the self-compassion and self-efficacy subscales. 4- For common humanity (self-compassion subscale), published research articles had a stronger effect size for the self-compassion and self-efficacy relationship than unpublished research articles. |
| XXVIII | YES. Direct | 1- Positive correlation between self-compassion and self-efficacy in infertility (based on instrument scores). 2- Infertility self-efficacy presented a moderating effect on the relationship between perceived social support and self-compassion: perceived social support was a stronger predictor of self-compassion when infertile women had a high level of infertility self-efficacy than when infertile women had a low level of self-efficacy in infertility. |
| XXIX | YES. Direct | A study included in the systematic review finds a positive correlation between SC and SE, but not a significant predictive relationship: a correlational analysis found that self-compassion was associated with pain self-efficacy, however, through another analysis carried out, self-compassion was not a significant predictor of pain self-efficacy. |

| | | |
|---------|--------------------------|---|
| XXX | YES. Direct and indirect | 1- Positive correlation between self-compassion and maternal self-efficacy (based on instrument scores) at two different moments of the study. 2- A higher level of self-compassion weeks postpartum was associated with more self-compassion six months later, which in turn was associated with a greater perception of maternal self-efficacy. 3- The association between benevolent childhood experiences and maternal self-efficacy was mediated by a serial mediation of self-compassion in Phases 1 and 2 of the study: women who reported more benevolent childhood experiences reported a higher level of self-compassion in Phase 1, which was associated with a higher level of self-compassion in Phase 2, which in turn was associated with a higher level of maternal self-efficacy. 4- Women who reported more benevolent childhood experiences reported a higher level of self-compassion in Phase 1, which was associated with a lower level of dissociative experiences in Phase 2, which in turn was associated with a higher level of maternal self-efficacy. |
| XXXI | YES. Direct | 1- After a failed attempt to help, self-compassion is positively related to self-efficacy to help (significant positive effect of self-compassion on self-efficacy to help). 2- After a failed attempt to help, self-compassion has a positive indirect effect on future helping through self-efficacy to help (self-efficacy to help mediated the relationship between self-compassion and future helping). 3- Low attribution of blame to co-workers strengthened the link between self-compassion and self-efficacy to help. |
| XXXII | YES. Direct | 1- Significant positive correlation between self-compassion and self-efficacy (based on instrument scores). 2- The effect of self-compassion on resilience was strongly mediated by self-efficacy. 3- Attachment avoidance influenced self-efficacy through self-compassion. 4- Attachment avoidance influenced resilience through self-compassion and self-efficacy as mediators in sequence. |
| XXXIII | YES. Direct | 1- Positive correlation between self-compassion and self-efficacy in controlling eating behavior (based on instrument scores). 2- No statistically significant association between self-compassion and self-efficacy to practice physical activity. |
| XXXIV | YES. Direct | 1- Significant positive correlation between self-compassion and counseling self-efficacy (based on instrument scores). 2- Average self-compassion scores accounted for 20.9% of the variance in participants' counseling self-efficacy. 3- Self-compassion mediated the association between mindfulness and counseling self-efficacy. |
| XXXV | YES. Direct | 1- Significant positive correlation between self-compassion and parenting self-efficacy (based on instrument scores). |
| XXXVI | YES. Direct | 1- Positive correlation between self-compassion and health self-efficacy (based on instrument scores). 2- Health self-efficacy mediated the relationship between self-compassion and pain disability. These findings suggest that, among diverse individuals with chronic pain, higher levels of self-compassion are associated with fewer pain-related disabilities through greater health self-efficacy. |
| XXXVII | YES. Direct | 1- Significant positive correlation between self-compassion and pain self-efficacy (based on instrument scores). 2- Pain self-efficacy mediated the relationship between self-compassion and quality of life. |
| XXXVIII | YES. Direct and indirect | 1- Moderate significant positive correlation between self-compassion and barrier self-efficacy (based on instrument scores). 2- Barrier self-efficacy mediated the relationship between: A) self-compassion and Moderate to Vigorous Physical Activity (MVPA), B) self-compassion and Light Physical Activity (LPA) and C) self-compassion and Sedentary Behavior (SB). 3- Self-efficacy and self-compassion were also shown to be indirectly related, through the reduction of psychological stress. These findings reveal that self-compassion manifests significant direct and indirect effects, contributing to increasing barrier self-efficacy for physical activity. |
| XXXIX | YES. Direct | 1- Significant positive correlation between self-compassion and Career Decision-Making Self-Efficacy (based on instrument scores). 2- Self-compassion, together with social support, mediated the relationship between Positive Identity (PI) and Career Decision-Making Self-Efficacy (CDMSE): PI was associated with increased social support, which was associated with increased self-compassion, which in turn is linked to the increase in CDMSE. |
| XL | YES. Direct | Both self-compassion training using videos (SCV) and self-compassion training using digital stories (SCDS) resulted in an increase in infertility self-efficacy scores compared to the control group, which had no significant effect. Furthermore, participants who underwent SC-DS training had higher infertility self-efficacy scores than those who underwent SCV. |
| XLI | YES. Direct and indirect | 1- Self-efficacy was associated with self-compassion (based on instrument scores). 2- Self-efficacy had a total effect and a positive and significant indirect effect on self-compassion. 3- Self-efficacy had a significant positive association with psychological well-being through the mediator effect of two consecutive mediators (perceived stress and self-compassion). |
| XLII | YES. Direct | Participants who received the intervention of 3 mindful self-compassion workshops had higher Early Intervention Parenting Self-Efficacy scores. |
| XLIII | YES. Direct | 1- The instrument developed, the Self-Efficacy in Distress Tolerance Scale (SE-DT), showed a significant moderate positive correlation with the instrument measuring self-compassion, the Self-Compassion Scale – short form (SCS-SF). Self-efficacy in tolerating suffering showed a significant correlation with self-compassion. |

| | | |
|------|----------------|--|
| XLIV | NO | <p>The study proposed and tested an adaptation/improvement of an already validated intervention (9UP), adding to it brief techniques inspired by acceptance and commitment therapy, specific to self-concepts such as self-compassion and others (Self-enhanced short version of the Unified Protocol - 9UP). The post-intervention resulted in an increase in general self-efficacy scores. However, there was no significant difference between the increase in self-efficacy in the adapted intervention group and the traditional intervention group.</p> <p>The study theoretically discusses the relationship between self-compassion, self-efficacy (and mindfulness). The authors conclude that “the points of dialogue perceived between SE, mindfulness and self-compassion in higher education were: encouraging the development of new skills for managing emotions and obstacles during graduation; providing strategies to face difficulties along the academic journey; offering protection against psychological illness; and promoting a greater sense of psychological adjustment, providing students with a more positive perspective of graduation.” Furthermore, they conclude that self-compassion plays a role in protecting the student’s self-efficacy in the face of their mistakes.</p> |
| XLV | YES. Direct | |

Articles VIII, X, XIX, XXIII, XLV, and XLIII (see Table 1 for numbering) theoretically discuss the relationship between SE and SC in a similar manner, involving situations of failure. Article X (Souza & Hutz, 2016a) explains that in situations where the individual is in control and the results are attributed to their own efforts, successful attempts increase self-efficacy beliefs, while the perception of failure has the opposite effect. More self-compassionate individuals are able to perceive their own failure as something shared by humanity, be kind to themselves in the situation, and deal with their feelings and thoughts in a more balanced way, which explains the significant relationship between SE and SC. Addressing a subcategory of SE, article VIII explains that students’ mathematical self-efficacy tends to decrease after failing a course. However, SE can be maintained if students have a high level of self-compassion about their perceived failure, treating themselves with kindness and mindfulness (Salazar, 2018). Similarly, article XIX states that when individuals on a diet experience inevitable setbacks during weight loss efforts, self-compassion can alleviate the negative reactions associated with failed self-regulation, contributing to preserving self-efficacy (Thøgersen-Ntoumani et al., 2020). In article XXIII, the authors state that the ability to be kind and understanding with oneself in cases of pain and failure is an important skill for dealing with difficulties arising from infertility. Thus, self-compassionate attitudes appear to be adaptive behaviors in relation to the perception of self-efficacy to cope with infertility (Pinto-Gouveia et al., 2012). For article XLV, self-compassion plays a protective role for students’ self-efficacy in the face of mistakes (Pereira & Silva, 2022), and for article XLIII, self-compassion protects an individual’s self-efficacy in the face of failure, explaining the positive association between the two variables (Alfonsson et al., 2022).

The result of study I shows how the trait of self-compassion moderated the impact of perceived difficulty (in a task) on self-efficacy. The authors explain that when evaluating their self-efficacy to maintain control, individuals take into account information such as mastery experience, feedback from others, emotional and physiological states. Thus, the findings could be explained according to two effects of SC: 1) self-compassion inspires calming thoughts, and 2) self-compassion, by allowing

individuals to accept and reevaluate aversive experiences in a different light, reduces emotional regulation demands (Chow & Hui, 2020). Similarly, according to the authors of article III regarding counseling challenges, mindfulness (an element of self-compassion) can bring a type of awareness to the therapist that ultimately leads to better coping with counseling challenges, elevating the therapist’s self-efficacy in counseling challenges (Chan et al., 2021).

Articles X, XII, XIII, and XVII present similar conclusions and observations regarding the relationship between SE and SC, essentially based on the idea that they are similar yet distinct constructs. Article X points out that self-efficacy and self-compassion are distinct constructs but measure similar aspects and are related since, ultimately, both refer to how the individual deals with themselves (Souza & Hutz, 2016a). Article XII states that self-compassion and self-efficacy (and also self-esteem) are distinct yet related aspects of personal identity (Muris et al., 2016). For Allen et al. (2019), the moderate strength of the association between SE and SC (found as one of their results) suggests that, although highly related constructs, they also appear to have distinct qualities. Finally, article XIII concludes that SE and SC are healthy and complementary self-perceptive aspects (Souza & Hutz, 2016b).

An interesting finding is that several articles found a direct relationship between self-compassion and self-efficacy but inserted in the middle of a mediation process with another variable, i.e., SC as a mediator in the relationship between SE and a third variable, or SE as a mediator of SC and a third variable. This is the case in studies I, XVI, XXV, XXVIII, XXX, XXXI, XXXII, XXXIV, XXXV, XXXVI, XXXVII. For example, self-efficacy to help mediated the relationship between self-compassion and future helping; after a failed attempt to help, self-compassion has an indirect positive effect on future helping through self-efficacy to help (Heng & Fehr, 2022). The association between benevolent experiences in childhood and maternal self-efficacy was established through a serial mediation of self-compassion in phases 1 and 2 of the study: women who reported more benevolent childhood experiences reported a higher level of self-compassion in Phase 1, which was associated with a higher level of self-compassion in Phase 2, which in turn was

associated with a higher level of maternal self-efficacy (Chas-son & Taubman-Ben-Ari, 2022). Health self-efficacy mediated the relationship between self-compassion and pain disability: higher levels of self-compassion are associated with less pain-related disabilities through greater health self-efficacy (Mistretta et al., 2023).

Both articles XXIV and XXII discuss the similar effect of SE and SC on third variables. Article XXIV (Wasylikiw et al., 2020) provides an important discussion about the association and overlap between the constructs. Among other results, the study addresses the moderate overlap between self-efficacy and self-compassion and how the two exhibit similar patterns of relationships with other variables (such as self-esteem, for example). Thus, it is difficult to discern whether one outweighs the other in specific results. Article XXII (Ziemer et al., 2015) sought to assess how individuals with chronic pain respond to two types of positive writing exercises: self-efficacy writing and self-compassion writing. Both types of writing led to similar results, influencing other variables involved in the study in a similar way. In addition, the authors discuss that self-efficacy and self-compassion may be similar enough topics to develop mutually, thus presenting similar results. For example, participants who made up the self-efficacy writing group may use aspects of self-compassion (such as mindfulness) to help control their pain; thus, by writing about self-efficacy, they may also be writing about self-compassion. Similarly, participants who composed the self-compassion writing group may begin to use it to cope with their pain, and if they find that self-compassion helps control their pain, this can consequently increase their self-efficacy beliefs.

For article XXXIV, counseling self-efficacy emphasizes performance evaluation and judgment, correlating with all three aspects of self-compassion (mindfulness, kindness, and common humanity). To establish a high self-efficacy belief, one must be aware of their capabilities, engage in self-kindness to foster openness to self-evaluation, and believe that success, as well as failure and errors, are inherent to human nature. In summary, the evaluative component of self-efficacy is elicited through the cognitive and affective aspects that arise when practicing self-compassion (Latorre et al., 2022).

Liao et al.'s (2021) study outlines two paths for the relationship between self-efficacy and self-compassion. Since psychological/emotional states are sources of self-efficacy, and self-compassion can transform negative emotions into positive ones, self-compassion can assist in fostering self-efficacy beliefs. Moreover, low self-efficacy beliefs can lead individuals to react to events with negative emotions. As self-compassion contributes to a balanced perspective on deficiencies and failures, rather than viewing them through severe self-criticism or overidentification with negative emotional reactions, those with higher self-compassion are likely to have more positive perceptions of their abilities and greater self-efficacy beliefs.

In article XI, the authors discuss the influence of self-assessment on self-efficacy. Despite self-assessment being related to how well (or not) the individual performed a task, the way one reacts to emotions during the learning activity can affect performance. Therefore, as students adopt a balanced perspective on their emotions and thoughts, avoiding overidentification with failure (components addressed by self-compassion), they are more inclined to focus on mastering tasks (rather than worrying about performance evaluations), promote motivation, and maintain confidence in their competence. As such, components of self-compassion can facilitate the learning process and consequently increase self-efficacy levels (Manavipour & Saeedian, 2016).

Most explanations of the relationship between SE and SC in the articles are based on pathways where self-compassion influences self-efficacy. Only articles XV and XLV (Iskender, 2009; Pereira & Silva, 2022) discuss the ways in which self-efficacy influences self-compassion. Among other results of the article XV, self-judgment, isolation, and overidentification were negatively related to self-efficacy. Negative components of self-compassion positively correlate with anxiety, depression, self-criticism, neuroticism, rumination, thought suppression, and neurotic perfectionism. Therefore, these negative dimensions of self-compassion are maladaptive. On the other hand, the literature indicates a negative association between self-efficacy and maladaptive variables such as shame, psychological stress, and anxiety. Thus, the study concludes that an increase in self-efficacy can decrease maladaptive variables like self-judgment, isolation, and overidentification, and there is a bidirectional causal relationship between these three components of self-compassion and self-efficacy (Iskender, 2009). According to Pereira and Silva (2022), academics with high self-efficacy beliefs tend to exhibit a higher sense of psychological adjustment, linked to a more robust repertoire of academic skills. Therefore, students with higher self-efficacy beliefs feel capable of managing their activities, promoting greater well-being, and developing self-compassion and mindfulness skills.

DISCUSSION

In order to elucidate how the literature addresses the relationship between self-efficacy and self-compassion, this systematic integrative review provides important results on the subject, following specific analysis categories. Therefore, the objective of this study was achieved.

The results show that the literature significantly highlights the relationship between the two constructs (which was found in 95.5% of the studies). This result aligns with the findings of the meta-analysis by Liao et al. (2021), in which the authors found statistically significant effect size correlations for the associations between the total score of self-compassion and self-efficacy and between the sub-scales of self-compassion and self-efficacy,

highlighting a positive and significant association between the SE and SC constructs.

In general, the theoretical explanation for the relationship between the two constructs varied across studies, with different reasonings and pathways through which self-compassion and self-efficacy relate being put forward. This variation raises some important points. Firstly, it highlights the incipient nature of studies relating SE and SC, and therefore, there is still no uniform, consolidated explanation of how the two are associated. Secondly, the plurality of explanations may point to more than one pathway through which self-efficacy and self-compassion may relate, possibly indicating the expressiveness and dynamism of this relationship.

However, it is interesting to note that, in this review, most explanations of the relationship between SE and SC given by the articles posit that self-compassion influences self-efficacy, indicating a trend of unidirectionality in the theoretical explanation behind the relationship between the constructs. In this sense, identifying this gap indicates the need for future research to conduct experimental studies capable of exploring the causal relationship between self-efficacy and self-compassion, allowing for a better understanding of whether the constructs influence each other unidirectionally or bidirectionally.

Based on the theoretical explanations presented by the articles, some hypotheses can be raised: 1) One way in which self-compassion and self-efficacy are related is through the effects of self-compassion on the experiences and perception of success and failure; 2) Another pathway through which SE and SC are related is linked to a clearer and more balanced awareness that allows individuals to evaluate aversive experiences differently; 3) Another route between the constructs involves how self-compassion contributes to more positive and balanced emotions, as one of the factors influencing self-efficacy beliefs is emotional states; 4) SE and SC are constructs that, despite being distinct, are related, and possibly complementary and similar in certain aspects; 5) The relationship between SE and SC may be involved in mediating the relationship of these constructs with third variables; 6) SE and SC have similar effects on other variables, which may explain and/or be a consequence of the relationship between these two constructs.

The results found in this systematic integrative review highlight the incipient nature of the literature on the relationship between self-efficacy and self-compassion, as 95.5% of the studies included in this review ($n=43$) are from the last 10 years, as also evidenced in the meta-analysis conducted by Liao et al. (2021). It is worth noting that 36 of these studies were published in the last 5 years, further emphasizing the current nature of the discussion on the relationship between SE and SC.

The results also indicate the international nature of literature on this topic. Therefore, it is necessary to weigh and assess significant limitations regarding the degree of generalization that can be made from the results found in international literature, considering relevant differences between populations,

such as cultural, social, and economic factors. Thus, studies on this theme need to be encouraged in Brazil, as well as in Latin America in general, taking into account the cultural specificities of our population and considering possible discrepancies with international research.

The patterns identified in the sample composition (predominance of women and university students) of the studies are relevant and important to be discussed and analyzed. The lack of sample diversity reduces the scope and degree of generalizations that can be made about the results of the studies that make up the analysis corpus of this review. Moreover, although Rose and Kocovski (2020) discuss the importance and how possible and meaningful it is to assess self-efficacy and self-compassion in their different forms/subcategories, it is relevant to consider that the results may vary according to the specific domain in which the construct is inserted (specific subcategory or assessed in a general way). Thus, the results found in this review become more diversified, which needs to be considered.

Since the literature gap on the topic using experimental methodology has been identified, another indication for future research is the development of experimental studies with designs suitable for the research question, focused on controlling variables, and with targeted interventions, seeking to reduce biases and ensure the possibility of a more precise and significant exploration of the cause-and-effect relationship between self-efficacy and self-compassion.

LIMITATIONS

The first limitation of this systematic integrative review was the impossibility to have two independent evaluators perform a full reading and fill out the summary matrix. The presence of two evaluators is recommended to reduce data extraction errors and limit individual interpretation biases in the analysis. However, two instruments were developed to ensure greater precision and methodological rigor in data extraction and to reduce biases or research errors: a filing table and a summary matrix. Moreover, all methodological choices were based on a wide range of books, articles, and materials that provide guidance on how to conduct an appropriate systematic integrative review. Finally, the elaboration of all its stages sought to meet all the items of a checklist entitled "Quality Indicators for Integrative Review Articles" developed by two researchers from Fiocruz and Unicamp (Reis, Martins & Lopes, 2015).

Another limitation of this study was the sole inclusion of published scientific articles on the topic. It is possible that other kinds of publications, such as theses, dissertations, books, and unpublished articles, may have important contributions to the literature on the relationship between self-efficacy and self-compassion. Additionally, to maintain coherence and focus on the pre-established research question, articles that did not address the relationship between self-efficacy and self-compassion in their abstracts were excluded. While necessary and justified, this methodological choice may also represent a limitation for this

study, as there may be other articles in the literature that discuss the relationship between self-efficacy and self-compassion but do not mention it in the abstract.

FINAL CONSIDERATIONS

This systematic integrative review was developed with the aim of answering the following research question: “how does the literature address the relationship between self-efficacy and self-compassion?” In general, through the results found, it can be concluded that the literature demonstrates that these constructs are positively and significantly related. The relationship found by different studies varies in terms of nature and degree, exhibiting quite diverse results. However, the literature on the subject is incipient, as the studies found have varied objectives, little population diversity, and research designs and methodological choices that bring some limitations regarding the generalization of results and conclusions about the relationship between SE and SC. This review points to the need to encourage and diversify research in the area and to conduct studies with specific designs and methodological choices on the theme to enable more precise and comprehensive generalizations and conclusions about the relationship between SE and SC. It is also necessary to encourage Brazilian and Latin American research in the field, considering cultural differences and specificities. Furthermore, the compilation and summary of results presented here allow the incorporation of evidence into clinical practice and interventions, serving as a basis for different professionals to consider future interventions in both the realm of self-compassion and self-efficacy. In this sense, interventions aimed at promoting and increasing self-efficacy beliefs in a population should consider including aspects of self-compassion in this process. Similarly, if the intention is to increase self-compassion, it may also be advantageous to promote self-efficacy in the population of interest.

REFERENCES

- Abdoli, N., Farnia, V., Radmehr, F., Alikhani, M., Moradinazar, M., Khodamoradi, M., Salemi, S., Rezaei, M., & Davarinejad, O. (2020). The effect of self-compassion training on craving and self-efficacy in female patients with methamphetamine dependence: a one-year follow-up. *Journal of Substance Use*, 1–6.
- Alfonsson, S., Mardula, K., Toll, C., Isaksson, M., & Wolf-Arehult, M. (2022). The self-efficacy in distress tolerance scale (SE-DT): a psychometric evaluation. *Borderline Personality Disorder and Emotion Dysregulation*, 9(1), 1-10.
- Allen, L. M., Roberts, C., Zimmer-Gembeck, M. J., & Farrell, L. J. (2020). Exploring the relationship between self-compassion and body dysmorphic symptoms in adolescents. *Journal of Obsessive-Compulsive and Related Disorders*, 25.
- Ânima educação (2014). Manual Revisão Bibliográfica Sistemática Integrativa: a pesquisa baseada em evidências. Belo Horizonte: Grupo Ânima Educação.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Bandura, A. & National Inst of Mental Health. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall, Inc.
- Bassi, G., Mancinelli, E., Di Riso, D., & Salcuni, S. (2021). Parental stress, anxiety and depression symptoms associated with self-efficacy in paediatric type 1 diabetes: a literature review. *International journal of environmental research and public health*, 18(1), 152.
- Bernard, L. K. & Curry, J. F. (2011). Self-Compassion: Conceptualizations, Correlates, and Interventions. *American Psychological Association*, 15 (4), 289–303.
- Bluth, K., Mullarkey, M., & Lathren, C. (2018). Self-compassion: A potential path to adolescent resilience and positive exploration. *Journal of Child and Adolescent Studies*, 27(9), 3037–3047.
- Botelho, L. L. R., Cunha, C. C. de A., Macedo, M. (2011). O método da revisão integrativa nos estudos organizacionais. *Gestão e Sociedade*, 5(1), 121-136.
- Burke, A.S., Shapero, B.G., Pelletier-Baldelli, A., Deng, W.Y., Nyer, M.B., Leatham, L., Namey, L., Landa, C., Cather, C. & Holt, D. J. (2020). Rationale, Methods, Feasibility, and Preliminary Outcomes of a Transdiagnostic Prevention Program for At-Risk College Students. *Frontiers in Psychiatry*, 10, Article 1030.
- Castilho, P., & Gouveia, J. P. (2011, Julho). Auto-Compaixão: Estudo da validação da versão portuguesa da Escala da Auto-Compaixão e da sua relação com as experiências adversas na infância, a comparação social e a psicopatologia. *Psychologica*, 54, 203-230.
- Chan S. H. W., Yu, C. K.-C. & Li, A.W.O. (2021). Impact of mindfulness-based cognitive therapy on counseling self-efficacy: A randomized controlled crossover trial. *Patient Education and Counseling*, 104(2), 360-368.
- Chasson, M., & Taubman–Ben-Ari, O. (2022). The contribution of childhood experiences, maternal disintegrative responses, and self-compassion to maternal self-efficacy and role satisfaction: a prospective study. *Current Psychology*, 1-10.
- Chow, T. S. & Hui, C. M. (2021). How Does Trait Self-Compassion Benefit Self-Control in Daily Life? An Experience Sampling Study. *Mindfulness*, 12(1),162–169.
- Chu, X., Geng, Y., Zhang, R., & Guo, W. (2021). Perceived social support and life satisfaction in infertile women undergoing treatment: A moderated mediation model. *Frontiers in Psychology*, 12, 651612.
- Cozby, P. C. (2003). Métodos de Pesquisa em Ciências do Comportamento (P. I. C. Gomide & E. Otta, Trad). Atlas. (Trabalho original publicado em 2001).
- Curl, E. L., & Hampton, L. H. (2023). Virtual Mindfulness Workshops for Parents of Children on the Autism Spectrum. *Journal of Early Intervention*, 0, 0.
- Dunas, I., Binder, P., Hansen, T. G. B. & Stige, S. H. (2017). Does a short self-compassion intervention for students increase healthy self-regulation? A randomized control trial. *Scandinavian Journal of Psychology*, 58, 443-450.
- Freedenberg, V. A., Jiang, J., Cheatham, C. A., Sibinga, E. M., Powell, C. A., Martin, G. R., Steinhorn, D. M., & Kemper, K. J. (2020). Mindful Mentors: Is a Longitudinal Mind–Body Skills Training Pilot Program Feasible for Pediatric Cardiology Staff? *Global Advances in Health and Medicine*, 9, 1-11.
- Gangwani, R., Cain, A., Collins, A., & Cassidy, J. M. (2022). Leveraging factors of self-efficacy and motivation to optimize stroke recovery. *Frontiers in Neurology*, 13, 113.

- Heng, Y. T., & Fehr, R. (2022). When you try your best to help but don't succeed: How self-compassionate reflection influences reactions to interpersonal helping failures. *Organizational Behavior and Human Decision Processes*, 171, 104151.
- Honicke, T., & Broadbent, J. (2016). The influence of academic self-efficacy on academic performance: A systematic review. *Educational research review*, 17, 63-84.
- Işbășoiu, A. B., Tulbure, B. T., Rusu, A., & Sava, F. A. (2021). Can We Boost Treatment Adherence to an Online Transdiagnostic Intervention by Adding Self-Enhancement Strategies? Results From a Randomized Controlled Non-inferiority Trial. *Frontiers in psychology*, 12, 752249.
- Iskender, M. (2009). The relationship between self-compassion, self-efficacy, and control belief about learning in Turkish university students. *Social Behavior and Personality*, 37(5), 711-720.
- Jang, H., Woo, H. & Lee, I. (2020). Effects of Self-Compassion and Social Support on Lesbian, Gay, and Bisexual College Students' Positive Identity and Career Decision-Making. *Journal of Counseling & Development*, 98(4), 402-411.
- Jang, H., Smith, C. K., & Duys, D. K. (2021a). LGB identity and career decision-making self-efficacy among sexual minority college students. *International Journal for Educational and Vocational Guidance*, 21, 61-79.
- Jang, H., Smith, C. K., & Duys, D. K. (2021b). Correction to: LGB identity and career decision-making self-efficacy among sexual minority college students. *International Journal for Educational and Vocational Guidance*, 21, 717.
- Jang, H., Clark, M., & Walker, T. L. (2021). Positive Identity and Career Decision-Making Self-Efficacy: Implications for Pansexual, Asexual, Demisexual, and Queer College Students. *Journal of LGBTQ Issues in Counseling*, 15(4), 356-371.
- Klassen, R. M., & Klassen, J. R. (2018). Self-efficacy beliefs of medical students: a critical review. *Perspectives on medical education*, 7, 76-82.
- Lanzaro, C., Carvalho, S. A., Lapa, T. A., Valentim, A., & Gago, B. (2021). A systematic review of self-compassion in chronic pain: from correlation to efficacy. *The Spanish Journal of Psychology*, 24, e26.
- Latorre, C., Leppma, M., Platt, L. F., Shook, N., & Daniels, J. (2023). The relationship between mindfulness and self-compassion for self-assessed competency and self-efficacy of psychologists-in-training. *Training and Education in Professional Psychology*, 17(2), 213.
- Lee, J., & Lee, J. E. (2022). Psychological well-being of midlife women: a structural equation modeling approach. *Menopause*, 29(4), 440-449.
- Li, M. H., & Preziosi, D. (2022). Developing Resilience from Attachment Anxiety/Avoidance: The Roles of Self-Compassion and Self-Efficacy in An Adolescent Sample in the US. *International Journal for the Advancement of Counselling*, 44(2), 318-336.
- Liao, K. Y. H., Stead, G. B., & Liao, C. Y. (2021). A meta-analysis of the relation between self-compassion and self-efficacy. *Mindfulness*, 12, 1878-1891.
- MacBeth, A. & Gumley, A (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review*, 32, 545-552.
- Machado, T. A., Paes, M. J., Berbetz, S. R. & Stefanello, J. M. F. (2014). Autoeficácia esportiva: uma revisão integrativa dos instrumentos de medida. *Revista da Educação Física / UEM*, 25(2), 323-333.
- Mancini, V. O., De Palma, M., Barker, J. L., Kharrazi, S., Izett, E., Rooney, R., & Finlay-Jones, A. L. (2023). Paternal attachment in the first five years: The role of self-compassion, negative emotional symptoms, parenting stress, and parent self-efficacy. *Mindfulness*, 14(2), 335-347.
- Manavipour, D. & Saeedian, Y. (2016). The role of self-compassion and control belief about learning in university students' self-efficacy. *Journal of Contextual Behavioral Science*, 5, 121-126.
- Martin, R. D., Kennett, D. J. & Hopewell, N. M. (2019). Examining the importance of academic-specific self-compassion in the academic self-control model. *The Journal of Social Psychology*, 159 (6), 676-691.
- Mistretta, E. G., Davis, M. C., Bartsch, E. M., & Olah, M. S. (2023). Self-compassion and pain disability in adults with chronic pain: The mediating role of future self-identification and self-efficacy. *Journal of Health Psychology*, 13591053231167275.
- Moeini, M., Sarikhani-Khorrami, E., & Ghamarani, A. (2019). The effects of self-compassion education on the self-efficacy of the clinical performance of nursing students. *Iranian Journal of Nursing and Midwifery Research*, 24(6), 469.
- Muris, P., Meesters, C., Pierik, A. & Kock, B. (2016). Good for the Self: Self-Compassion and Other Self-Related Constructs in Relation to Symptoms of Anxiety and Depression in Non-clinical Youths. *Journal of Child and Family Studies*, 25, 607-617.
- Neff, K. D. (2003). Self-compassion: An Alternative Conceptualization of a Healthy Attitude Toward Oneself. *Self and Identity*, 2, 85-101.
- Neff, K. D., Lockard, A., Hayes, J. & Locke, B. (2014). Self-Compassion Among College Counseling Center Clients: An Examination of Clinical Norms and Group Differences. *Journal of College Counseling*, 17(3), 249-259.
- Neff, K. (2010). *Autocompaixão: pare de se torturar e deixe suas inseguranças pra trás* (B. M. Flores, Trad.). Rio de Janeiro: Lúcida letra.
- Njogu, A., Kaburu, F., Njogu, J., Barasa, E., Mutisya, A., & Luo, Y. (2023). The effect of self-compassion-based programs for infertility (SCPI) on anxiety and depression among women pursuing fertility treatment: a three-armed, randomised controlled trial. *Journal of Assisted Reproduction and Genetics*, 40(4), 911-927.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *Bmj*, 372.
- Pajares, P. & Olaz, F. (2008). Teoria social cognitiva e auto-eficácia: uma visão geral. In A. Bandura, R. G. Azzi, & S. Polydoro (Org.), *Teoria Social Cognitiva: conceitos básicos* (pp. 97-114). Porto Alegre: Artmed.
- Pereira, M. D., & da Silva, J. P. (2022). Autoeficácia, mindfulness e autocompaixão: possíveis interlocuções a partir da Psicologia Positiva na educação superior. *Memorandum: Memória e História em Psicologia*, 39.
- Pervin, L. A. & John, O. P. (2004). A Teoria Sociocognitiva: Bandura e Mischel. In L. A. Pervin & O. P. John, *Personalidade: Teoria e pesquisa* (pp. 346-363) . Porto Alegre: Artmed
- Pinto-Gouveia, J., Galhardo, A., Cunha, M., & Matos, M. (2012). Protective emotional regulation processes towards adjustment in infertile patients. *Human Fertility*, 15(1), 27-34.
- Pyykkö, J. E., Aydin, Ö., Gerdes, V. E., Acherman, Y. I., Groen, A. K., van de Laar, A. W., ... & Hagedoorn, M. (2022). Psychological functioning and well-being before and after bariatric surgery; what is the benefit of being self-compassionate?. *British journal of health psychology*, 27(1), 96-115.

- Raque-Bogdan, T. L., Lent, R. W. & Lamphere, B. (2019). Test of a social cognitive model of well-being among breast cancer survivors. *Journal of Health Psychology, 24*(5), 661–670.
- Reis, J. G., Martins, M. F. M. & Lopes, M. H. B. M. (2015). Indicativos de qualidade para artigos de Revisão Integrativa. *Arca Repositório Institucional da Fiocruz*. Rio de Janeiro: FIOCRUZ, 2 p. Procedimento técnico de metodologia de pesquisa. Disponível em: <https://www.arca.fiocruz.br/handle/icict/10952>
- Rose, A. L. & Kocovski, N. L. (2021). The Social Self-Compassion Scale (SSCS): Development, Validity, and Associations with Indices of Well-Being, Distress, and Social Anxiety. *International Journal of Mental Health and Addiction, 19*(6), 2091–2109.
- Salazar, L. R. (2018). Examining the Relationship between Math Self-Efficacy and Statistics Motivation in the Introductory Business Statistics Course: Self-Compassion as a Mediator. *Decision Sciences Journal of Innovative Education, 16*(2), 140-160.
- Salehi, N., Afrashteh, M. Y., Majzoubi, M. R., Ziapour, A., Janjani, P., & Karami, S. (2023). Does coping with pain help the elderly with cardiovascular disease? The association of sense of coherence, spiritual well-being and self-compassion with quality of life through the mediating role of pain self-efficacy. *BMC geriatrics, 23*(1), 1-10.
- Santos, C. M. D. C., Pimenta, C. A. D. M., & Nobre, M. R. C. (2007). A estratégia PICO para a construção da pergunta de pesquisa e busca de evidências. *Revista latino-americana de enfermagem, 15*, 508-511.
- Sirois, F. M. (2015). A self-regulation resource model of self-compassion and health behavior intentions in emerging adults. *Preventive Medicine Reports, 2*, 218–222.
- Smeets, E., Neff, K., Alberts, H. & Peters, M. (2014). Meeting Suffering With Kindness: Effects of a Brief Self-Compassion Intervention for Female College Students. *Journal of Clinical Psychology, 70*(9), 794-807.
- Souza, L. K., & Hutz, C. S. (2016a). Self-compassion in relation to self-esteem, self-efficacy and demographical aspects. *Paidéia, 26*(64), 181-188.
- Souza, L. K., & Hutz, C. S. (2016b). A autocompaixão em mulheres e relações com autoestima, autoeficácia e aspectos sociodemográficos. *Psico, 47*(2), 89-98.
- Souza, M. T. D., Silva, M. D. D., & Carvalho, R. D. (2010). Revisão integrativa: o que é e como fazer. *Einstein (São Paulo), 8*, 102-106
- Soysa, C. K., & Wilcomb, C. J. (2015). Mindfulness, self-compassion, self-efficacy, and gender as predictors of depression, anxiety, stress, and well-being. *Mindfulness, 6*, 217-226.
- Sugiharto, F., Nuraeni, A., Trisyani, Y., Putri, A. M., Armansyah, N. A., & Zamroni, A. H. (2023). A Scoping Review of Predictors Associated with Self-Efficacy Among Patients with Coronary Heart Disease. *Vascular Health and Risk Management, 7*, 719-731.
- Thøgersen-Ntoumani, C., Dodos, L. A., Stenling, A., & Ntoumanis, N. (2020). Does self-compassion help to deal with dietary lapses among overweight and obese adults who pursue weight-loss goals? *British Journal of Health Psychology, 26*(3), 767–788.
- Tiwari, G. K., Pandey, R., Rai, P. K., Pandey, R., Verma, Y., Parihar. P. , Ahirwar, G., Tiwari, A. S. & Mandal, S. P. (2020). Self-compassion as an intrapersonal resource of perceived positive mental health outcomes: a thematic analysis. *Mental Health, Religion & Culture, 23*(7), 550-569.
- Trompetter, H. R., Kleine, E., & de Bohlmeijer, E. T. (2017). Why does positive mental health buffer against psychopathology? An exploratory study on self-compassion as a resilience mechanism and adaptive emotion regulation strategy. *Cognitive Therapy and Research, 41*(3), 459–468.
- Wasylikiw, L., Hanson, S., Lynch, L. M., Vaillancourt, E., & Wilson, C. (2020). Predicting undergraduate student outcomes: Competing or complementary roles of self-esteem, self-compassion, self-efficacy, and mindsets? *Canadian Journal of Higher Education, 50*(2), 1–14.
- Williams, D. M., & Rhodes, R. E. (2016). The confounded self-efficacy construct: conceptual analysis and recommendations for future research. *Health psychology review, 10*(2), 113-128.
- Yeo, G., Tan, C., Ho, D., & Baumeister, R. F. (2023). How do aspects of selfhood relate to depression and anxiety among youth? A meta-analysis. *Psychological Medicine, 1*-23.
- Zhang, S., Roscoe, C., & Pringle, A. (2023). Self-Compassion and Physical Activity: The Underpinning Role of Psychological Distress and Barrier Self-Efficacy. *International Journal of Environmental Research and Public Health, 20*(2), 1480.
- Ziemer, K. S., Fuhrmann, A., & Hoffman, M. A. (2015). Effectiveness of a Positive Writing Intervention for Chronic Pain: A Randomized Trial. *MYOPAIN, 23*(3-4), 143–154.