

University of Memphis

University of Memphis Digital Commons

Electronic Theses and Dissertations

5-2-2023

Self-Compassion and Psychological Flexibility: A Meta-Analysis of Relations

Jordan Moreno

Follow this and additional works at: <https://digitalcommons.memphis.edu/etd>

Recommended Citation

Moreno, Jordan, "Self-Compassion and Psychological Flexibility: A Meta-Analysis of Relations" (2023). *Electronic Theses and Dissertations*. 3114.
<https://digitalcommons.memphis.edu/etd/3114>

This Thesis is brought to you for free and open access by University of Memphis Digital Commons. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of University of Memphis Digital Commons. For more information, please contact khggerty@memphis.edu.

SELF-COMPASSION AND PSYCHOLOGICAL FLEXIBILITY: A META-
ANALYSIS OF RELATIONS

by

Jordan Moreno

A Thesis

Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Science

Major: School Psychology

The University of Memphis

May 2023

Abstract

This meta-analysis sought to examine the relation between self-compassion and psychological flexibility as well as to add to the literature pertaining to potential moderators of this relation. The study extracted 104 unique effect sizes (Pearson's r) from 44 samples, with data from 11,660 participants. Consistent with prior research, results indicated a moderate positive relation (.62) between self-compassion and psychological flexibility. However, the study did not find any significant moderation effects for age or gender. All studies used a variation of the Self-Compassion Scale (SCS) including the Self-Compassion Scale – Short Form and the Self-Compassion Scale – Positive Factors. The implications of these findings could help practitioners and researchers seeking to promote psychological well-being and positive coping strategies in their clients. Further research is needed to clarify the unique contributions of the different components of self-compassion to psychological well-being and to identify the most effective ways to promote these constructs in diverse populations.

Table of Contents

Section	Page
1. Introduction	4
a. Self-compassion	4
i. Relation between Positive Psychology and Self-Compassion	5
1. Moderators	7
b. Psychological Flexibility	8
i. Relation between Positive Psychology and Psychological Flexibility	10
1. Interventions	10
2. Moderators	10
c. Relations Between Self-Compassion and Psychological Flexibility	11
2. Method	12
a. Literature Search Strategy	12
b. Selection of Publications	16
i. Training	17
ii. Coding of Publications	17
iii. Statistical Analysis	19
3. Results	20
a. Study Characteristics	20
b. Self-compassion Measures	22
c. Psychological Flexibility Measures	23
d. Three-level Models for Correlation Between Self-Compassion and Psychological Flexibility	24
e. Moderator Analysis	25
f. Publication Bias	25
4. Discussion	26
a. Limitations and Future Directions	28
b. Conclusion	29
5. References	30

Self-Compassion and Psychological Flexibility: A Meta-Analysis of Relations

Recently, Coyne et al. (2021) addressed the undeniable impact of the COVID-19 pandemic on parenting stress. In order to provide practitioners working with families with an evidence-based framework during an unprecedented time, they suggested an approach that bolsters psychological well-being in families and further develops their coping skills. The tools they suggested sought to build on the principles of psychological flexibility and self-compassion to promote resiliency and self-kindness. The current study responds to Coyne et al.'s call to understand the connection between self-compassion and psychological flexibility by conducting a meta-analysis between the two constructs. This increased understanding should assist practitioners and researchers in developing more specific interventions to improve overall psychological well-being in parents and in the general population.

Self-Compassion

The idea of “offering non-judgmental understanding to one’s pain” (Neff, 2003, p. 87) is most commonly referred to as self-compassion. Compassion and self-compassion are relatively comparable due to both constructs involving a sense of kindness toward one's experience of pain (Zessin et al., 2015). However, self-compassion is compassion directed toward one's own pain rather than to the pain of another. Self-Compassion is made up of three components: self-kindness, common humanity, and mindfulness. Self-kindness is defined as perceiving one's actions or thoughts with understanding and kindness rather than harshly judging or criticizing oneself. Common humanity is defined as viewing one's personal experience as part of the larger human experience rather than feeling isolated or separated. Lastly, mindfulness is defined as having a balanced awareness of one's own undesirable thoughts and feelings as opposed to over-identifying with them. The three constructs are often presented as opposing reactions to negative

events: self-kindness versus self-judgement, sense of common humanity versus isolation, and mindfulness versus over-identification (Neff, 2003).

Relation between Positive Psychology and Self-Compassion

The relation between self-compassion and psychological functioning has been thoroughly researched, and self-compassion has demonstrated positive psychological effects in many interpersonal and intrapersonal domains (Barnard et al., 2011). Due to the expansive nature of negativity bias, it is likely that individuals will primarily recall negative life events when forming their own self-concept (Rozin & Royzman, 2001), which is likely to lead to psychopathology. Based on these findings, self-compassion can further be described as the relation between augmented positive responding and attenuated negative responding to oneself when experiencing times of difficulty resulting in an overall reduction of negative self-evaluations and psychopathological symptoms (Neff et al., 2018). When examining the outcomes of self-compassion, both the absence of non-self-compassionate behavior and the presence of self-compassionate behavior predict well-being in multiple areas of functioning including interpersonal functioning, emotion regulation, positive self-concept, positive body image, and positive psychological health (Neff et al., 2018; Neff & Germer, 2013).

Because both non-compassionate and compassionate behaviors function together, they can be viewed as essential to positive psychological functioning (Neff et al., 2018). Many intervention studies conducted over the past several years have revealed the casual pattern of influence self-compassion has on positive psychological functioning. Concerning positive body image, a self-compassion intervention produced overall reductions in body dissatisfaction, including decreased body shame and appearance-based self-worth and increased body appreciation (Albertson et al., 2015). Concerning psychological health, an intervention focusing

on self-compassion increased positive affect and emotion regulation skills, such as cognitive reappraisal, in a sample of participants with major depressive disorder (Diedrich et al., 2016; Shapira & Mongrain, 2010).

Several studies have demonstrated positive effects of trait and experimentally induced self-compassion on college students. In a multi-part study conducted by Johnson and O'Brien (2013), they found a strong negative relation between depressive symptoms and self-compassion with shame as a significant mediator. The shame-prone participants were then asked to recall a shameful experience and (1) write about it in a self-compassionate way, (2) write their feelings about it, or (3) do nothing. Those participants who wrote self-compassionately reported reduced levels of negative affect and trait shame than those in the other conditions (Johnson & O'Brien, 2013). Another study conducted by Leary et al. (2007) asked participants to report their negative social experiences. Results showed that trait self-compassion reduced unfavorable reactions when participants imagined a distressing event, received ambivalent feedback, or reported on the value of their own recorded performance. When a self-compassionate perspective was experimentally induced, participants were less likely to feel overwhelmed by distressing emotions when acknowledging their own participation in unfavorable events. Overall, participants with higher levels of self-compassion were less likely to be overwhelmed by negative emotions than those with lower levels of self-compassion. Another study done by Odou and Brinker (2015) presented similar results. After undergoing a negative mood induction, undergraduate students were assigned a writing task focused on self-compassion or a task focused on distracting them from their current mood. Those students who completed the self-compassionate writing task reported increased positive affect while those who completed a distraction task reported reduced levels of positive affect (Odou & Brinker, 2015). Additionally,

a study done by Smeets et al. (2014) showed an increase in resilience, mindfulness, optimism, and self-efficacy, as well as a decrease in rumination for female college students assigned to a three-week self-compassion group when compared to the control group (Smeets et al., 2014).

Moderators. The literature detailing specific demographic moderators of self-compassion is beginning to emerge; however, it is lacking. Concerning the gender binary, men typically report higher levels of self-compassion than women beginning around adolescence (Yarnell et al., 2015; Lockard et al., 2014), and sexual- and gender-minority youth report less self-compassion than their sexual- and gender-majority peers (Vigna et al., 2018). Concerning race and ethnicity, the literature is mixed on whether race or ethnicity are moderators of self-compassion. When examining race and ethnicity among university counseling clients, Lockard et al. (2014) found no differences in levels of self-compassion. However, other researchers have shown that examination of race and ethnicity as it relates to self-compassion is more complex. For example, in two studies of high school students, sexual- and gender-minority students of color report higher levels of self-compassion than white sexual- and gender-minority students, but white students and students of color from the sexual- and gender-majority groups reported no difference in levels of self-compassion (Vigna et al., 2018). Further, sexual- and gender-majority students of color reported the highest levels of self-compassion, and no significant difference was reported between racial-minority and racial-majority sexual- and gender-minority groups. Also, self-compassion was only found to be a protective factor for sexual- and gender-minority students of color against depression and suicidality at very high levels. These findings contrast with the average levels of self-compassion needed for racial-majority, sexual- and gender-minority students and sexual- and gender-majority students (Vigna et al., 2020).

Concerning age, some evidence has shown that self-compassion increases over lifespan, resulting in higher levels of self-compassion in older age (Charles & Carstensen, 2008; Homan, 2016; Zessin et al., 2015). Further, age and ethnicity have been found to moderate the relation between self-compassion and gender. Older adolescents who identify as women report the lowest levels of self-compassion and the least positive impact from self-compassion-related interventions (Bluth et al., 2017). Additionally, the gender gap in self-compassion is smaller among those who report their ethnicity as White when compared to those who reported other ethnicities and is seen to decrease among older samples (Yarnell, 2015).

Psychological Flexibility

The concept of psychological flexibility has historically been difficult to define due to its multi-faceted, dynamic processes. A person is seen to display psychological flexibility by how they (1) adapt to changing demands, (2) shift mental resources, (3) alter their perspectives, and (4) balance competing aspects of life. In other words, psychological flexibility describes how well a person is able to appropriately shift their attention between internal experiences and external contexts. Psychological flexibility differs from traditional fixed states of personality to predict psychological health by addressing how a person adapts to their current context (Kashdan, 2010).

Psychological flexibility has been most extensively analyzed by researchers studying relational frame theory (RFT; Hayes et al., 2006). According to RFT, psychopathology stems from psychological inflexibility through the individual's attempt to control or avoid unpleasant thoughts and emotions. Psychological flexibility is then defined as mindful presence and persistence in value-based behaviors despite unpleasant or painful private events. It includes six processes: acceptance, contact with the present moment, defusion, self-as-context, values, and

committed action (Hayes et al., 2006). Acceptance is described as the active, non-judgmental acknowledgment and embrace of internal and external events. It is also frequently described as the opposite of experiential avoidance. Contact with the present moment is synonymous with the current definition of mindfulness, which is defined as experiencing events as they occur without judgement. Defusion is an individual's attempt to alter the way they interact with their own thoughts rather than trying to change the thoughts themselves. Self-as-context is based on the deictic nature of human language (e.g., "I vs. You" and "Now vs. Then") and is defined as the manner in which a person sees their own experiences in relation to their own identity or to the experiences of others. Values are the qualities an individual chooses to pursue in their life and the basis for purposeful action and change. Committed action is the practical action taken by the individual to pursue their chosen values and lead a more flexible, purpose-driven life. These six processes are the basis of the treatment modality known as acceptance and commitment therapy, which uses psychological flexibility as the primary mechanism of change (Marshall, 2016).

Based on prior research examining experiential avoidance alongside psychological inflexibility, psychological inflexibility and experiential avoidance are highly interrelated (Bond et al., 2011) and can be measured simultaneously (Hayes et al., 2004). For this reason, measures of experiential avoidance will be included in the current study alongside psychological in/flexibility. However, based on findings from Tyndall et al. (2019) examining the AAQ-II and Brief Experiential Avoidance Questionnaire (BEAQ; Gámez et al., 2014), the BEAQ and AAQ-II may not measure the same construct.

Relation between Positive Psychology and Psychological Flexibility

Numerous studies have revealed that higher levels of psychological flexibility and lower levels of psychological inflexibility led to greater well-being. For example, psychological flexibility is associated with positive physical outcomes (e.g., sleep quality, behavior at work, and physical health) and psychological outcomes (e.g., lower stress, high well-being, and high quality of life; Gloster et al., 2017; Meyer et al., 2018; Wersebe et al., 2018). Similarly, high levels of psychological inflexibility are associated with higher levels of anxiety, depression, substance misuse, and stress symptoms related to traumatic events (Hayes et al., 2006).

Interventions. Given the reported psychological outcomes associated with psychological flexibility, interventions provide more support for the utility of the construct as it relates to observable psychological change. As mentioned previously, a widely known intervention method through which psychological flexibility is emphasized is through acceptance and commitment therapy (Hayes et al., 2006), and many intervention studies have evaluated the effectiveness of its central techniques. Furthermore, several meta-analyses of acceptance and commitment therapy have reported reduced stress in healthcare providers (Prudenzi et al., 2021), increased levels of subjective well-being in adults (Stenhoff et al., 2019), and greater relational satisfaction (Daks et al., 2020) across samples. In a meta-analysis of laboratory-based studies examining the six components of the psychological flexibility model, Levin et al. (2012) observed significant positive effect for psychological flexibility-targeted outcomes (e.g., acceptance of feelings, mindfulness of sensations, and persistence in distressing events).

Moderators. Research is beginning to detail demographic moderators of psychological flexibility. Concerning the gender binary, men typically report higher levels of psychological flexibility (Azevedo & Matos, 2015; Mendoza et al., 2018), and sexual minorities report lower

levels of psychological flexibility (Mendoza et al., 2018). Concerning race and ethnicity, Tavakoli et al. (2019) examined the interaction between psychological inflexibility and anxiety in an ethnically diverse sample and found no differences among the groups. However, Mendoza et al. (2018) found that Black and White Americans with a sexual minority status reported lower levels of psychological flexibility than Asian Americans. Regarding age, in a systematic review of age-related psychological flexibility studies, Plys et al. (2022) found that older samples reported greater levels of psychological flexibility related to awareness when compared to younger samples. However, no other significant findings were noted. The literature on the moderating effects of demographic differences is lacking, and more research is needed in this area (Azevedo & Matos, 2015).

Relations Between Self-Compassion and Psychological Flexibility

When considering the relation between constructs, it seems safe to assume that self-compassion and psychological flexibility are positively related. Like psychological flexibility, the practice of self-compassion places an emphasis on a cognitive-emotional mindset that seeks to integrate and accept rather than replace negative thoughts, feelings, and events with positive ones (Zessin et al., 2015). In several recent studies, a positive association between self-compassion and psychological flexibility has been reported across various sample groups, including individuals with chronic pain, clinical perfectionism, and post-partum-related affective disorders (Cheng et al., 2021; Monterio et al., 2019; O'Boyle-Finnegan, 2022). Further, considering the conceptual similarities of self-compassion and psychological flexibility, Yadavaia et al. (2014) found increased levels of self-compassion in participants who underwent a short acceptance and commitment therapy intervention.

Despite the increasing amount of literature analyzing the two constructs together, no meta-analysis focusing on their relation has been published. Following prior meta-analyses that have examined the relations between self-compassion and coping (Ewert et al., 2021), self-compassion and self-efficacy (Liao et al., 2021), and self-compassion and psychopathology (Muris et al., 2017), the present study seeks to fill these gaps by performing a meta-analysis to (1) determine the association between self-compassion and psychological flexibility across existing literature and (2) add to the limited research on moderators associated with self-compassion and psychological flexibility, including gender, age, and ethnicity. Based on prior research (Davey et al., 2020; McLean et al., 2018; Whittingham & Mitchell, 2021), it was hypothesized that the average effect will be in the moderate to large range (.50-1.00). Based on prior findings demonstrating age and gender as moderators of self-compassion (Yarnell et al., 2015; Zessin et al., 2015) and psychological flexibility (Azevedo & Matos, 2015), it was predicted that gender will have a moderate to large effect on the relation between self-compassion and psychological flexibility, with higher levels among men and lower levels among sexual- and gender-minorities, and age will have a moderate to large effect size, with higher levels among older samples. Due to the complex nature of discrimination and racism, forming a hypothesis regarding the interaction between race and ethnicity as it relates to self-compassion and psychological functioning may be outside the scope of this study; therefore, no hypothesis was offered.

Method

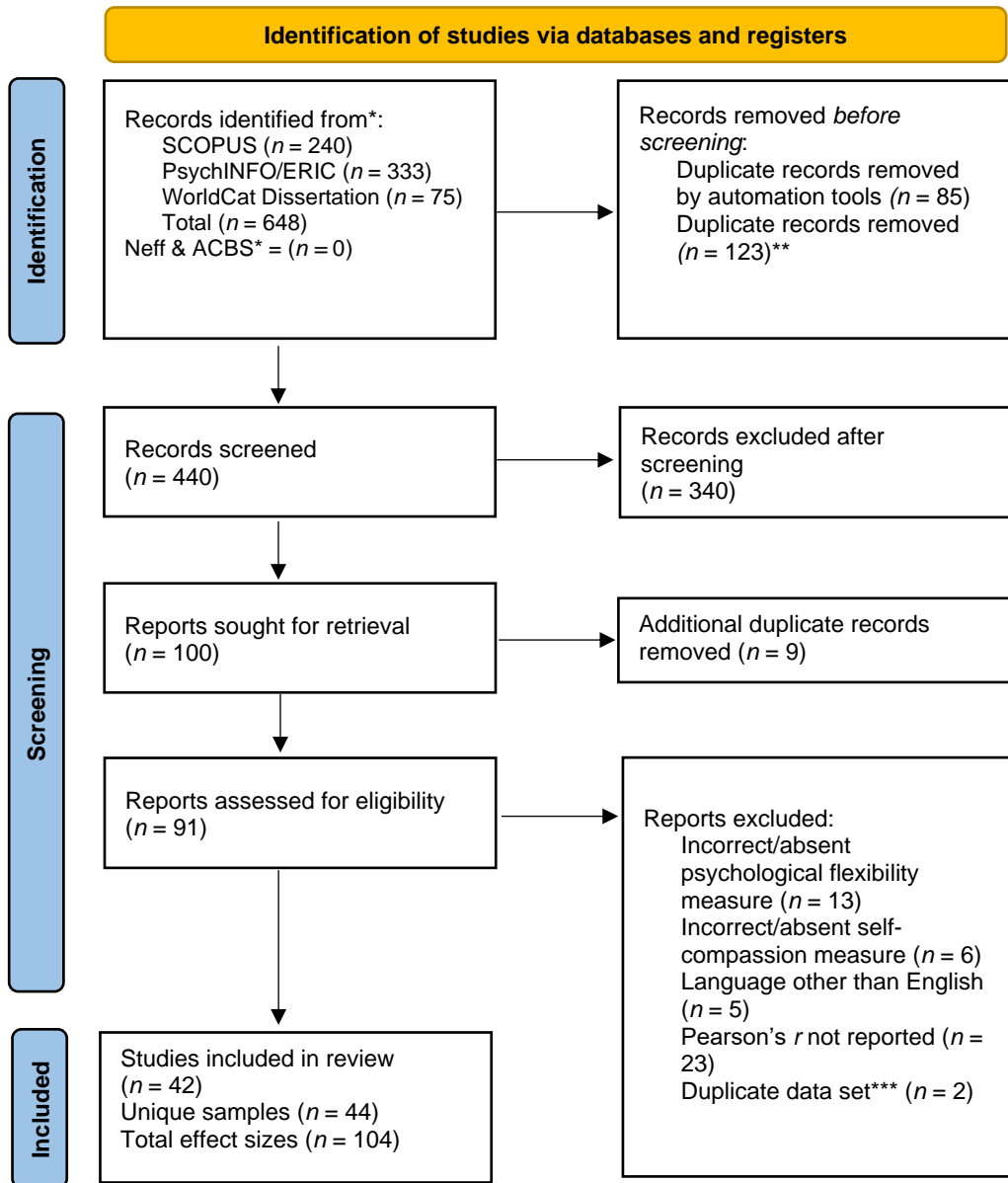
Literature Search Strategy

This meta-analysis included a systematic search of publications related to self-compassion and psychological flexibility published in English from the year 2003 to 2022.

Consistent with several prior meta-analyses (Ewert et al., 2021; Liao et al., 2021; Muris et al., 2017), the earliest publications in this study were from 2003, which corresponds to the year the Self-Compassion Scale (SCS; Neff, 2003a) was first published. The search was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021). Searches were conducted through the PsycINFO, ERIC, and Worldcat Dissertation Search databases. Search keywords, based on the potential for different manners of spelling or word usage, as well as commonly used search terms from prior meta-analyses (Ferrell et al., 2018; Levin et al., 2012; Garner et al., 2021) were as follows: *compassion, self-compassion, self compassion, Self-Compassion-Scale, compassionate, psychological flexibility, psychologically flexible, flexible, psychological inflexibility, flexibility, inflexibility, inflexible, present moment awareness, defusion, cognitive fusion, Acceptance and Commitment Therapy, Acceptance-Based, experiential avoidance, psychological acceptance, Body Image Psychological Inflexibility Questionnaire Scale, Brief Experiential Avoidance Questionnaire, Children's Psychological Flexibility Questionnaire, Chronic Pain Acceptance Questionnaire, Comprehensive assessment of Acceptance and Commitment Therapy processes, Multidimensional Experiential Avoidance Questionnaire, Multidimensional Psychological Flexibility Inventory, Psy-Flex, Psychological Inflexibility in Pain Scale*. Although scale names related to specific aspects of psychological flexibility were utilized in the search criteria, scales related to psychological flexibility in specific populations or areas of concern were not included (e.g., *Chronic Pain Acceptance Questionnaire, Psychological Inflexibility in Pain Scale, Body Image Psychological Inflexibility Questionnaire Scale*). The principal investigator and a faculty advisor individually screened the articles for eligibility based on title and abstract. Percent

agreement was 90%. Discrepancies were resolved based on discussion. If a resolution could not be reached, the full text was examined by both parties and agreement was achieved.

To reduce the potential impact of publication bias and identify unpublished studies of interest, the following procedures were used beyond search of expansive databases. Kristin Neff's website (www.self-compassion.org), which provides a current overview of recent research focused on self-compassion, was checked for relevant publications. Also, the Association of Contextual and Behavioral Sciences publication database (www.contextualscience.org/publications), which contains current research related to acceptance and commitment therapy, was checked for relevant publications related to psychological flexibility. Based on these two methods, no additional articles were identified.



* Screening was completed after initial screening of prior databases. No new articles were found.

**Duplicate records that were missed by the automation tool were removed by the principal investigator prior to screening.

***Two studies (Meyer et al., 2017 & Meyer et al., 2019) used the same data set for each study. Due to additional demographic information provided in the Meyer et al. (2019) study, only it was included in the study.

Figure 1. PRISMA Flow Diagram of Identification and Selection of Included Studies.

Selection of Publications

A total of 648 journal articles, theses, dissertations, pre-publications posted online, and unpublished manuscripts were reviewed. Publications included all ages and populations and produced new empirical findings related to the relations between self-compassion and psychological flexibility. Regarding exclusionary criteria, the study did not include publications published in a language other than English, literature reviews, or qualitative studies. Only full texts of publications were included. Using the operationalized definition of self-compassion stemming from Neff's conceptualization through the Self-Compassion Scale (SCS; Neff, 2003a; Neff, 2003b), the study (Ewert et al., 2021; Liao et al., 2021) included only studies that used either the long form (Neff, 2003a) or short form version of the SCS (Self-Compassion Scale, Short Form [SCS-SF]; Raes et al., 2001). Additional translations of the SCS were included as well. Furthermore, the study included only publications that reported the Pearson correlation (r) statistic to represent the association between measures of self-compassion and psychological flexibility.

From the initial 648 publications, 208 duplicate publications were removed, and 440 unique publications remained. Further screening revealed that 340 articles did not meet criteria; thus, 100 articles were sought for retrieval. Following retrieval, 9 additional duplicate articles were removed. The remaining 91 publications were assessed for eligibility. The PRISMA flow diagram in Figure 1 displays more information about the selection and inclusion of the studies. After coding, 42 studies met the inclusion criteria. During the coding process, one study (Meyer et al., 2017) was determined to be inadequate for inclusion due to duplicate reporting of results. Overall, a total of 42 studies were included in the current meta-analysis. Of the included studies, 2 reported results from more than one independent cohort, which resulted in 44 unique samples.

Additionally, several studies reported more than one effect size, resulting in a total of 104 unique effect sizes.

Training

The principal investigator and one trained coder coded the publications after completing training on the specifics of the coding process. After completing the first training session, the trained coder independently coded five randomly selected studies included in the current meta-analysis. Based on the coding of these articles, the principal investigator evaluated coder accuracy (based on comparison to a coding key) and discussed discrepancies with the coder. Coding accuracy was calculated by dividing the number of agreements with the key by the overall number of observations multiplied by 100 (Orwin & Vevea, 2009). The minimum threshold for coding accuracy was set at 85% agreement with the key; when achieved, the coder began coding publications for the studies. Coding accuracy by the trained coder was 89% agreement.

Coding of Publications

Using a complete double-coding procedures, the principal investigator and the trained coder coded all studies. All coding was completed in Microsoft Excel. Coding involved items grouped into study and method characteristics. Study characteristics were coded by author names and year of publication, followed by participant type (e.g., general, university, clinical, and general), mean age, reported racial and ethnic identities composition of sample (i.e., percentages of the sample in the following categories: Hispanic or Latinx, Black or African American, American Indian or Alaskan Native, Asian American, Arab Americans or People of Middle Eastern or North African descent, Native Hawaiian or Other Pacific Islander, Bi/Multiracial, White or European American, and Other), and gender ratio (e.g., proportion women and percent

reporting Other/Gender Non-binary/Transgender). Method characteristics were coded by scales and subscales used for measuring self-compassion and psychological flexibility.

A comprehensive list of scales measuring psychological flexibility was compiled prior to coding (Daks & Rogge, 2020). Measures of psychological flexibility are frequently scaled in different directions, with a higher score indicating psychological flexibility in some scales and others indicating psychological inflexibility. In particular, the Acceptance and Action Questionnaire-2 (AAQ-II) is the most widely used measure of psychological inflexibility. Due to the many of the studies reporting findings related to psychological inflexibility rather than psychological flexibility,¹ the coders reported whether the finding measured psychological inflexibility or flexibility.

For intervention studies, only time-1 (pre-intervention) data were coded. Sample sizes, means, and standard deviations for measures and r coefficients (and other aligned correlation coefficients) between psychological flexibility and self-compassion were recorded. If internal consistency coefficients (e.g., coefficient alpha values) from the sample described in a study were reported, they were recorded.

Agreement in coding was evaluated by inter-coder agreement between coders. Cohen's kappa was calculated for categorical variables (i.e., self-compassion scale and subscale, psychological flexibility scale, and participant type) for the pair of coders, with kappa between .61 and .80 implying substantial agreement (Landis & Koch, 1977). Intraclass correlation coefficients (IICs) were calculated for continuous variables (i.e., r and sample size). After coding was completed, disagreements in coding were addressed through discussion. Cohen's kappa for

¹ In this study, effect sizes for 52.9% of studies ($n = 55$) targeted the construct of psychological inflexibility rather than psychological flexibility.

the self-compassion scale and self-compassion subscale, psychological flexibility scale, and participant type were .84, .86, .75, and .76, respectively. ICCs for r and sample size were .88, and .97, respectively.

Statistical Analysis

The primary multi-level meta-analysis was completed using the *metafor* (Viechtbauer, 2010) meta-analysis package through the R statistical software (R Core Team, 2018). Due to many non-independent effect sizes, a three-level, random effect model was specified to accommodate for the nested structure of the effect sizes (Cheung, 2014). This model assumes that the true effect size will vary across studies (Hunter & Schmidt, 2004) and provides three-levels of variance: the between-study variance, the within-study variance, and the individual variance from the individual effect sizes. Because the level 1 sampling variance is typically not reported with correlations used in meta-analyses, sampling variance was obtained from the study's sample size using a formula described by Borenstein et al. (2009). Additionally, analysis of publication bias was conducted using the *Major* meta-analysis package through the Jamovi statistical software (The Jamovi Project, 2022).

The r coefficient was used as the effect size measure to represent the relation between self-compassion and psychological flexibility. In cases in which psychological inflexibility was targeted, the principal investigator reversed the sign of the associated raw effect sizes. Raw effect sizes were transformed into Fisher's z scale to stabilize variances. An average was computed using the Fisher's z s and then transformed to r again to interpret the overall result (Rosenthal & DiMatteo, 2001). Effects sizes were evaluated based on Cohen's classifications (.20 -.49 = small, .50 -.79 = moderate, and .80 - 1.00 = large effect; Cohen, 1988). Heterogeneity was measured using the Q and I^2 statistics. A significant Q statistic indicates that the pooled effect size does not

represent a unitary effect, and the I^2 statistic describes the variance caused by heterogeneity (and not by chance) between the studies (i.e., 25 = low, 50 = medium, and 75 = high levels of heterogeneity; Higgins et al., 2003).

Additionally, psychological inflexibility measures were converted to absolute values before conversion to Fisher's Zr transformations if not already completed by the original author. This conversion was done to avoid potential confounding factors when analyzing the overall effect size of self-compassion and psychological flexibility. Correction for attenuation was conducted for measures with an internal consistency coefficient (e.g., coefficient alpha values) using the formula $r_{xy} / \sqrt{r_{xx} * r_{yy}}$ (Anglim, 2010). When an internal consistency coefficient was not reported, the reported effect size was used for the analysis. Correlations were corrected for 77 effect sizes (74.04%; see Table 1).

Results

Study Characteristics

All studies included were published between the years of 2012 and 2022. The mean participant age was reported as 31.1 years ($SD = 11.1$) with a range from 14.1 to 58.3 years. There were 11,660 participants from 44 unique samples (see Table 1). The sample sizes ranged from 27 to 2,150. Of the studies included, 31.1% were participants from a university sample, 26.7% were from specific populations (e.g., pregnant women and athletes), 17.8% were from clinical populations, and 17.8% were from the general population. Most samples were from the United States (33.1%), Portugal (25.4%), and the United Kingdom (23.7%). More information can be found in Appendix A.

The average percentage of participants, across studies, reporting being female was 63.4% ($SD = 28.2\%$). Due to the small number of studies that reported genders outside of the male–

female binary ($n = 7$), these gender categories (e.g., gender non-binary, other, or transgender) were combined. The average percentage of participants reporting a status of gender non-binary, other, or transgender was 0.60% ($SD = 0.49\%$). The most frequently reported ethnicity/racial identities reported by sample were White or European American (73.1% of total sample) from 26 samples and Hispanic or Latina/o (5.06%) from 18 samples.

Table 1

Study Characteristics including Number of Effect Sizes Provided by Author, Sample sizes, Measures, and Participant Information.

# of ES	Author and Year	<i>N</i>	SC measures	PF measures	Participants	Mean age	Percent Female
7	Almeida 2020*	75	SCS	AAQ-II	Medical	54.9	48
1	Autera 2015	247	SCS	AAQ-II	University	20.5	71.7
1	Bakker 2019*	100	SCS	BEAQ	Clinical	38.6	70
14	Berman 2021	29	SCS	AAQ-II; VLQ	Clinical	NR	36.2
1	Carraça 2019*	57	SCS	AAQ-II	Specific	25.8	0
1	Chan 2018*	311	SCS-SF	AAQ-II	Clinical	43.6	65.9
1	Cheng 2021	167	SCS-SF	AAQ-II	Clinical	54.6	25.5
1	Dahm 2013*	118	SCS	AAQ-II	Clinical	34.3	16
1	Duarte 2017*	331	SCS	AAQ-II	General	33.3	70.6
1	Farr 2021*	556	SCS-POS	AAQ-II	University	20	85
1	Fulton 2018*	55	SCS	AAQ-II	University	32	87.3
28	Giorinelli 2022*	76	SCS-SF	CompACT	University	24.9	69.7
1	Guadagno 2013*	149	SCS-SF	AAQ-II	University	18.9	66.4
1	Harris 2020*	92	SCS	AAQ-II	University	28.9	70.7
1	Hefetz 2020*	90	SCS-SF	AAQ-II	Specific	31.8	0
1	Kılıç 2022*	173	SCS	AAQ-II	Medical	58.3	60.1
2	Kramer 2018*	167	SCS	AAQ-II; VLQ	University	19.9	100
4	Mak 2021*	158	SCS-SF	AAQ-II	Clinical	43.2	44.9
1	Marshall 2016*	144	SCS-SF	AAQ-II	University	NR	76.3
1	Mazumdar 2021*	242	SCS-SF	AAQ-II	Specific	35.5	100
1	McLean 2018*	27	SCS	AAQ-II	Clinical	37.7	100
1	Mendes 2022*	221	SCS-POS	AFQ-Y	Specific	14.1	100
1	Meyer 2019*	117	SCS	AAQ-II	Clinical	37.3	16.2
1	Monteiro 2021*	661	SCS-SF	AAQ-II	Medical	32.1	100
1	Moreira 2020*	375	SCS-SF	AFQ-Y	Specific	14.2	NR
2	Nonoka 2021*	100	SCS-SF	COPE	General	38.6	37
3	O'Boyle-Finigan 2022*	215	SCS-SF	AAQ-II	Specific	NR	96.7
1	Palcan 2016*	87	SCS-SF	CompACT	University	26.6	73.6
1	Pinciotti 2017*	332	SCS-SF	AAQ-II	University	21.3	72

Table 1 (Continued)

4	Pinto-Gouveia 2012*	100	SCS	AAQ-II	Specific	34.3	0
1	Pyszkowska 2021*	431	SCS	AAQ-II; CSQ-A	General	28.9	53.4
2	Rolffs 2018_1	2,1 50	SCS-SF	AAQ-II	General	34.8	60
2	Rolffs 2018_2	518	SCS	MPFI	General	34.8	59
1	Schreiber 2022*	363	SCS	MPFI	University	19.8	71.9
1	Schulz 2016*	139	SCS-SF	BEAQ	General	NR	83.5
3	Seligowski 2015*	453	SCS	AAQ-II	University	19.8	65.7
1	Taylor 2012*	241	SCS-SF	AAQ-II	University	18.7	83.3
1	Wang 2022*	420	SCS-SF	AAQ-II	Specific	15.8	NR
1	Wendling 2012*	299	SCS-SF	AAQ-II	Specific	49.9	51.5
1	Wetterneck 2012	115	SCS	VLQ	Specific	36.3	71.3
1	White 2020_1	110	SCS-SF	FOREST	General	21.6	50
1	White 2020_2	254	SCS	FOREST	General	31	77.9
1	Whittingham 2021*	396	SCS-SF	AAQ-II	Specific	33.1	100
1	Williams 2015*	199	SCS	AAQ-II	University	21.8	74.4

Note. Studies with multiple samples are listed on separate lines. SCS = Self-Compassion Scale (SCS; Neff, 2003a); SCS-SF = Self-Compassion Scale–Short Form (SCS-SF; Raes et al., 2011); SCS-POS = Self-Compassion Scale–Positive Factors (SCS-POS; Lopez et al., 2015); AAQ-II = Acceptance and Action Questionnaire - II (Bond et al., 2011); CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy (Giovannetti et al., 2022); VLQ = Valued Living Questionnaire (Wilson & Groom, 2002); MPFI = Multidimensional Psychological Flexibility Inventory (Rolffs et al., 2018); BEAQ = Brief Experiential Avoidance Questionnaire (Gámez et al., 2014); AFQ-Y = Acceptance and Fusion Questionnaire for Youth (Greco et al., 2008), CSQ = Coping Styles Questionnaire - Avoidant (Roger et al., 1993); FOREST = Flexibility of Responses to Self-Critical Thoughts Scale (Larkin, 2014); COPE = Brief Coping Orientation to Problems Experienced (COPE) Inventory (Carver, 1997). *Studies with effect sizes that were corrected for attenuation.

Self-Compassion Measures

Three scales were identified as measures of self-compassion: the Self-Compassion Scale (SCS; Neff, 2003a), the Self-Compassion Scale–Short Form (SCS-SF; Raes et al., 2011), and the Self-Compassion Scale–Positive Factors (SCS-POS; Lopez et al., 2015). Of the unique effect sizes presented in the studies, 47.1% ($n = 49$) stemmed, in part, from the SCS; 44.9% ($n = 53$) stemmed from the SCS-SF; and 1.9% ($n = 2$) stemmed from the SCS-POS.

Considering self-compassion score types, almost half (49%, $n = 51$) were a total composite score. Several studies utilized composite scores such as, the Positive Factors composite score (e.g., a composite of Self-kindness, Common Humanity, and Mindfulness subscales) and the Negative Factors composite score (e.g., a composite of Self-Judgement, Isolation, and Over-Identification subscales). These scales were utilized in 3.8% ($n = 4$) and

2.9% ($n = 3$) of the publications, respectively. Of the available subscales, Self-Kindness was reported in 8.7% ($n = 9$) of the studies, Self-judgement was reported in 8.7% ($n = 9$), Common Humanity was reported in 6.7% ($n = 7$), Isolation was reported in 6.7% ($n = 7$), Mindfulness was reported 6.7% ($n = 7$), and Over-identification was reported in 6.7% ($n = 7$).

Psychological Flexibility Measures

A total of 9 measures of psychological flexibility were found. The most commonly used measure (48.1%, $n = 50$) was the Acceptance and Action Questionnaire-II. Other measures included the Comprehensive Assessment of Acceptance and Commitment Therapy (Giovannetti et al., 2022), used in 29.8% ($n = 31$) of studies; the Valued Living Questionnaire (Wilson & Groom, 2002), used in 9.6% ($n = 10$) of studies; and the Multidimensional Psychological Flexibility Inventory (Rolffs et al., 2018) was used in 3.8% ($n = 4$) of studies. The following measures were used two studies apiece ($n = 2$):

Brief Experiential Avoidance Questionnaire (Gámez et al., 2014), Acceptance and Fusion Questionnaire for Youth (Greco et al., 2008), Coping Styles Questionnaire - Avoidant (Roger et al., 1993), and the Flexibility of Responses to Self-Critical Thoughts Scale (Larkin, 2014). The Brief Coping Orientation to Problems Experienced (COPE) Inventory (Carver, 1997) was used in one study.

Three-level Models for Correlation Between Self-Compassion and Psychological Flexibility

Using data from all studies and all variables, three-level model revealed an effect size of .62, $Z_r = 0.72$ [95% CI: 0.64, 0.81], $p < .001$. This value indicates a moderate positive relation between self-compassion and psychological flexibility. There was significant heterogeneity across studies, $Q(103) = 2054.49$, $p < .001$. There was significant between-study variance between 28 levels, $\sigma_{\tau k}^2 = .013$, and significant within-study variance between 104 levels, $\sigma_{\tau i k}^2 =$

0.097. Concerning I^2 , 95.20% of the variance in the effect estimates was due to heterogeneity. The I^2 statistics indicated that there was considerable heterogeneity and that it is unlikely the variability in effect estimates was due to sampling error (McKenzie et al., 2022).

Considering the finding that self-compassion scores were most often total composites ($n = 51$), the three-level model was also calculated for only these scores. The three-level model revealed an effect size of 0.67, $Z_r = 0.81$ [0.95% CI: 0.73, 0.89], $p < .001$. This value indicates a moderate positive relation between total self-compassion and psychological flexibility. There remained significant heterogeneity across studies, $Q(50) = 604.41$, $p < .001$. There was significant between-study variance between 40 levels, $\sigma_{\tau k}^2 = .008$, and significant within-study variance between 104 levels, $\sigma_{\tau ik}^2 = 0.06$. Concerning I^2 , 92.87% of the variance in the effect estimates was due to heterogeneity. The I^2 statistics indicated that there was considerable heterogeneity and that it is unlikely the variability in effect estimates was due to sampling error (McKenzie et al., 2022).

Moderator Analysis

Using data from all studies and all variables, moderator analysis were conducted on gender and age. There were no significant moderation effects of gender ($p = .70$) or age ($p = .18$). Samples included in the current meta-analysis reported very limited numbers of participants from racial and ethnic minority groups. Therefore, to avoid “lumping” participants from racial and ethnic minority groups into one group, ethnicity and race were not examined as moderating factors (Huey & Jones, 2013). Frequency of reporting and missing data information can be found in Appendix B.

Publication Bias

To assess for potential publication bias, visual inspections of funnel plots, trim-and-fill analyses, and Egger's regression analyses were conducted. Using data from all studies and all variables ($N = 104$) and based on visual inspection of funnel plots, an asymmetric distribution was noted. Trim-and-fill analysis indicated that there were no studies missing. Furthermore, Egger's regression for funnel plot asymmetry was not statistically significant, $B = -1.52$ $p = 0.13$, indicating that the results were not significantly impacted by publication bias. An analysis was also conducted using only the total scores from the SCS ($n = 51$) to determine if the results of the trim-and-fill analysis were due to multiple non-independent correlations found in the studies that also included subscale scores. From the total scores, trim-and-fill analysis indicated that there were no studies missing. Egger's regression was not statistically significant, $B = -0.3$, $p = 0.71$, indicating that the results were not significantly impacted by publication bias.

Discussion

The present meta-analysis was the first to examine the relation between psychological flexibility and self-compassion. The study was designed to (1) determine the association across existing literature and (2) add to the current research on moderators associated with self-compassion and psychological flexibility. Based on prior research (Davey et al., 2020; McLean et al., 2018; Whittingham & Mitchell, 2021), it was hypothesized that the average effect will be in the moderate to large range (.50-1.00).

The current meta-analysis drew 104 unique effect sizes from a sample of 11,660 participants from 44 samples. Sample sizes ranged from 27 to 2,150. The majority of the participants were White or European American and from a university sample in the United States. Additionally, most participants reported being female, and the mean age of participants

was 31.1 years old (with a range from 14.1 to 58.3 years). All studies included were published between the years of 2012 and 2022.

Concerning self-compassion scales, the Self-Compassion Scale (SCS; Neff, 2003a), the Self-Compassion Scale–Short Form (SCS-SF; Raes et al., 2011), and the Self-Compassion Scale–Positive Factors (SCS-POS; Lopez et al., 2015) were used. Concerning psychological flexibility, a total of nine measures of were employed. The most commonly used measure was the Acceptance and Action Questionnaire-II (Bond et al., 2011). Other measures included the Comprehensive Assessment of Acceptance and Commitment Therapy (Giovannetti et al., 2022). Additionally, the Valued Living Questionnaire (Wilson & Groom, 2002), and the Multidimensional Psychological Flexibility Inventory (Rolffs et al., 2018), Brief Experiential Avoidance Questionnaire (Gámez et al., 2014), Acceptance and Fusion Questionnaire for Youth (Greco et al., 2008), Coping Styles Questionnaire-Avoidant (Roger et al., 1993), the Flexibility of Responses to Self-Critical Thoughts Scale (Larkin, 2014), and the Brief Coping Orientation to Problems Experienced (COPE) Inventory (Carver, 1997).

Although there were minor indications of publication bias from visual inspection of funnel plots, results of formal tests indicated that the study's effect sizes were not significantly impacted by publication bias. Consistent with the study's primary hypothesis, both analysis of all effect sizes and analysis of only effect sizes related to total scores resulted in a moderate positive relation between self-compassion and psychological flexibility. There was a slightly higher effect size from the total score only analysis compared to the analysis from all variables. These findings are in line with prior studies (Cheng et al., 2021; Marshall et al., 2016; Monterio et al., 2019; O'Boyle-Finnegan, 2022) and provide a much broader analysis of the overall relation between the two constructs.

Associations between total self-compassion and psychological flexibility ranged from $r = .10$ to $.87$, with only 10 studies reporting an effect size lower than $r = .50$. Associations between all variables of self-compassion and psychological flexibility ranged, however, from $r = -.22$ to $.91$. The wide range of effect sizes found when the subscales are included in the analysis may be due, in part, to conceptual incongruence of the negative components of the SCS (i.e., self-judgement, over-identification, and isolation). Muris et al. (2018) purported that the positive components of the Self-Compassion Scale (i.e., self-kindness, mindfulness, and common humanity) accurately measure self-compassion as a construct of positive coping. However, they proposed that the negative components are a better measure of psychopathology rather than positive coping. It is possible that the inclusion of the negative subscales of the SCS in the current study resulted in more variance in the results.

Previous studies have highlighted the importance of self-compassion and psychological flexibility separately as positive adaptive coping strategies (Barnard et al., 2011; Gloster et al., 2017; Meyer et al., 2018; Wersebe et al., 2018). Additionally, interventions designed to increase self-compassion (Johnson & O'Brien, 2013; Leary et al., 2007) and psychological flexibility (Prudenzi et al., 2021; Stenhoff et al., 2019) have resulted in an increase in positive psychological outcomes. The results from the present meta-analysis, in combination with prior research, indicate that fostering both self-compassion and psychological flexibility could promote overall psychological well-being. The results also align with the approach proposed by Coyne et al. (2021), suggesting that the promotion of tools and interventions targeting self-compassion and psychological flexibility in families is important for encouraging resiliency and self-kindness in families, especially during stressful times. Practitioners working with families

can utilize the current findings to develop positive coping strategies that promote resiliency during difficult life situations.

Contrary to the stated hypothesis and prior findings demonstrating age and gender as moderators of self-compassion's relations with other variables (Yarnell et al., 2015; Zessin et al., 2015) and psychological flexibility's relations with other variables (Azevedo & Matos, 2015), the current meta-analysis found no significant moderation effects for either gender or age on the relation between these two constructs.

Limitations and Future Directions

There are four limitations to be noted for this meta-analysis. First, the data for the current analysis were cross-sectional in nature, reducing the ability to determine causality between self-compassion and psychological flexibility. Future researchers should seek to establish a time-oriented relation between self-compassion and psychological flexibility through the use of a longitudinal design. Second, a causal relation between self-compassion and psychological flexibility is unable to be determined due to the correlational nature of the current study. Experimental studies are needed to establish a causal relation between self-compassion and psychological flexibility.

Third, an ancestral search of articles identified via the literature search was not completed; thus, these results may not include other relevant or unpublished literature. Results would be strengthened by further search in the reference sections of the papers identified through the current literature search in order to increase the generalizability of the findings. Fourth, there was limited reporting of demographic factors in many of the studies. Of the 44 samples, 18 studies did not report data concerning ethnicity or race. Additionally, only 7 studies reported on gender identities outside of the traditional gender binary. Therefore, the samples for ethnicity and

other gender identities were too small to draw adequate conclusions. Analysis of the moderating impact of gender, ethnicity, and age are important areas for future research in this area.

Conclusion

The present meta-analysis was the first to look at the association between self-compassion and psychological flexibility. The results indicate that there is a moderate positive association between self-compassion and psychological flexibility. However, age and gender were not found to be significant moderators. Future research should seek to gather data from a diverse group of participants and report more demographic information from the participants. Additionally, these results align with the approach proposed by Coyne et al. (2021) to encourage psychological well-being through interventions targeted at increasing self-compassion and psychological flexibility. Additional research can be conducted to further investigate if the interventions improve overall psychological well-being in parents and in the general population.

References

*Denotes study included in the systematic review and meta-analysis

Albertson, E. R., Neff, K. D., & Dill-Shackleford, K. E. (2015). Self-compassion and body dissatisfaction in women: A randomized controlled trial of a brief meditation intervention. *Mindfulness*, *6*(3), 444-454.

<https://doi.org/10.1007/s12671-014-0277-3>.

*Almeida, V., Leite, Â., Constante, D., Correia, R., Almeida, I. F., Teixeira, M., Vidal, D. G., Sousa, H. F. P. E., Dinis, M. A. P., & Teixeira, A. (2020). The mediator role of body image-related cognitive fusion in the relationship between disease severity perception, acceptance and psoriasis disability. *Behavioral Sciences*, *10*(9), 142.

Anglim, J. (2010) *Adjusting correlations for reliability: Attenuation formula: R-bloggers*. R. Retrieved February 28, 2023, from <https://www.r-bloggers.com/2009/09/adjusting-correlations-for-reliability-attenuation-formula/>

*Autera, J. C. (2015). *The role of parenting and mindfulness-related constructs in the development of disordered eating pathology* (Doctoral dissertation, Kean University).

Azevedo, A., & Matos, A. P. (2015). Psychological flexibility and self-compassion: Contributions of gender and its association with adolescent depression. *Journal of Global Academic Institute Education & Social Sciences*, *1*(2), 95–109.

*Bakker, A. M., Cox, D. W., Hubley, A. M., & Owens, R. L. (2019). Emotion regulation as a mediator of self-compassion and depressive symptoms in recurrent depression. *Mindfulness*, *10*, 1169-1180.

Berman, B. M., & Kurlancheek, K. (2021). The choice point model of acceptance and commitment therapy with inpatient substance use and co-occurring populations: A

pilot study. *Frontiers in Psychology*, 12, 758356.

<https://doi.org/10.3389/fpsyg.2021.758356>

Berryhill, M. B., Hayes, A., & Lloyd, K. (2018). Chaotic-enmeshment and anxiety: the mediating role of psychological flexibility and self-compassion. *Contemporary Family Therapy*, 40(4), 326-337. <https://doi.org/10.1007/s10591-018-9461-2>.

Bluth, K., Campo, R. A., Futch, W. S., & Gaylord, S. A. (2017). Age and gender differences in the associations of self-compassion and emotional well-being in a large adolescent sample. *Journal of Youth and Adolescence*, 46(4), 840-853.

<https://doi.org/10.1007/s10964-016-0567-2>.

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire–II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior therapy*, 42(4), 676-688.

Borenstein M, Hedges L, Higgins J, Rothstein H (2013). Comprehensive meta-analysis (version 3). Biostat.

*Carraça, B., Serpa, S., Rosado, A., & Guerrero, J. P. (2019). A pilot study of a mindfulness-based program (MBSoccerP): The potential role of mindfulness, self-compassion and psychological flexibility on flow and elite performance in soccer athletes. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte*, 14(1), 34-40.

Carver C. S. (1997). You want to measure coping but your protocol's too long: consider the brief COPE. *International journal of behavioral medicine*, 4(1), 92–100.

https://doi.org/10.1207/s15327558ijbm0401_6

- *Chan, K.K.S., Lee, C.W.L. & Mak, W.W.S. Mindfulness model of stigma resistance among individuals with psychiatric disorders. *Mindfulness* 9, 1433–1442 (2018).
<https://doi.org/10.1007/s12671-018-0887-2>
- Charles, S. T., & Carstensen, L. L. (2008). Unpleasant situations elicit different emotional responses in younger and older adults. *Psychology of Aging*, 23, 495–504.
doi:[10.1037/a0013284](https://doi.org/10.1037/a0013284).
- *Cheng, Z. H., Lozier, C. C., Lewis, M. M., O'Neil, M. E., Luoma, J. B., & Morasco, B. J. (2021). Investigating the role of psychological inflexibility, mindfulness, and self-compassion in PTSD. *Journal of Contextual Behavioral Science*, 22, 102-107.
<https://doi.org/10.1016/j.jcbs.2021.10.004>
- Chio, F. H., Mak, W. W., & Ben, C. L. (2021). Meta-analytic review on the differential effects of self-compassion components on well-being and psychological distress: The moderating role of dialecticism on self-compassion. *Clinical Psychology Review*, 85, 101986. <https://doi.org/10.1016/j.cpr.2021.101986>.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum.
- Cole T. J. (2015). Too many digits: the presentation of numerical data. *Archives of Disease in Childhood*, 100(7), 608–609. <https://doi.org/10.1136/archdischild-2014-307149>
- Coyne, L. W., Gould, E. R., Grimaldi, M., Wilson, K. G., Baffuto, G., & Biglan, A. (2021). First things first: Parent psychological flexibility and self-compassion during COVID-19. *Behavior Analysis in Practice*, 14(4), 1092-1098.
<https://doi.org/10.1007/s40617-020-00435-w>.

- *Dahm, K. A. (2013). Mindfulness and self-compassion as predictors of functional outcomes and psychopathology in OEF/OIF veterans exposed to trauma. doi: 10.1002/jts.22045
- Daks, J. S., & Rogge, R. D. (2020). Examining the correlates of psychological flexibility in romantic relationship and family dynamics: A meta-analysis. *Journal of Contextual Behavioral Science*, 18, 214-238.
<https://doi.org/10.1016/j.jcbs.2020.09.010>.
- Davey, A., Chilcot, J., Driscoll, E., & McCracken, L. M. (2020). Psychological flexibility, self-compassion and daily functioning in chronic pain. *Journal of Contextual Behavioral Science*, 17, 79-85.
<https://doi.org/10.1016/j.jcbs.2020.06.005>.
- Diedrich, A., Hofmann, S. G., Cuijpers, P., & Berking, M. (2016). Self-Compassion enhances the efficacy of explicit cognitive reappraisal as an emotion regulation strategy in individuals with major depressive disorder. *Behaviour Research and Therapy*, 82, 1-10.
<https://doi.org/10.1016/j.brat.2016.04.003>.
- *Duarte, J., & Pinto-Gouveia, J. (2017). Correlates of psychological inflexibility mediate the relation between alexithymic traits and positive emotions. *Journal of Contextual Behavioral Science*, 6(1), 96–103. <https://doi.org/10.1016/j.jcbs.2016.12.002>
- Duval, S., & Tweedie, R. (2000). Trim and fill: a simple funnel-plot-based method of testing and adjusting for publication bias in meta-analysis. *Biometrics*, 56(2), 455-463.
<https://doi.org/10.1111/j.0006-341X.2000.00455.x>.

- Ewert, C., Vater, A., & Schröder-Abé, M. (2021). Self-Compassion and coping: a meta-analysis. *Mindfulness*, 12(5), 1063-1077.
<https://doi.org/10.1007/s12671-020-01563-8>.
- *Farr, J., Ononaiye, M., & Irons, C. (2021). Early shaming experiences and psychological distress: The role of experiential avoidance and self-compassion. *Psychology and Psychotherapy: Theory, Research and Practice*, 94(4), 952-972.
<https://doi.org/10.1111/papt.12353>
- *Fulton, C. L. (2016). Mindfulness, self-compassion, and counselor characteristics and session variables. *Journal of Mental Health Counseling*, 38(4), 360-374.
<https://doi.org/10.17744/mehc.38.4.06>
- Gámez, W., Chmielewski, M., Kotov, R., Ruggero, C., Suzuki, N., & Watson, D. (2014). The brief experiential avoidance questionnaire: development and initial validation. *Psychological assessment*, 26(1), 35–45. <https://doi.org/10.1037/a0034473>
- Garner, E. V., & Golijani-Moghaddam, N. (2021). Relationship between psychological flexibility and work-related quality of life for healthcare professionals: A systematic review and meta-analysis. *Journal of Contextual Behavioral Science*, 21, 98–112. <https://doi.org/10.1016/j.jcbs.2021.06.007>
- Gloster, A. T., Klotsche, J., Ciarrochi, J., Eifert, G., Sonntag, R., Wittchen, H. U., & Hoyer, J. (2017). Increasing valued behaviors precedes reduction in suffering: Findings from a randomized controlled trial using ACT. *Behaviour Research and Therapy*, 91, 64-71.
doi: 10.1016/j.brat.2017.01.013.
- *Gorinelli S, Gallego A, Lappalainen P, & Lappalainen R (2022). Psychological processes in the social interaction and communication anxiety of university students: The role of

self-compassion and psychological flexibility. *International Journal of Psychology & Psychological Therapy*, 22, 1, 5-19.

Greco, L. A., Lambert, W., & Baer, R. A. (2008). Psychological inflexibility in childhood and adolescence: Development and evaluation of the Avoidance and Fusion Questionnaire for Youth. *Psychological Assessment*, 20(2), 93–102.

<https://doi.org/10.1037/1040-3590.20.2.93>

*Guadagno, J. (2012). *The mindful path to valued living: Understanding the associations between mindfulness and valued living*. [Dissertation, Duke University]. Retrieved from <https://hdl.handle.net/10161/5767>.

Harrer, M., Cuijpers, P., Furukawa, T.A., & Ebert, D.D. (2021). *Doing Meta-Analysis with R: A Hands-On Guide*. Boca Raton, FL and London: Chapman & Hall/CRC Press. ISBN 978-0-367-61007-4.

*Harris, H. L., (2019) *Graduate Student Professional Quality of Life Impact of Self-Compassion, Psychological Flexibility, and ACEs*. [Doctor of Psychology (PsyD), George Fox University]. 299.

<https://digitalcommons.georgefox.edu/psyd/299>

Hayes, S.C., Strosahl, K., Wilson, K.G. *et al.* Measuring experiential avoidance: A preliminary test of a working model. *Psychol Rec* 54, 553–578 (2004).

<https://doi.org/10.1007/BF03395492>

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, 44(1), 1-25.

<https://doi.org/10.1016/j.brat.2005.06.006>.

- *Hefetz, S. (2020). *Third wave concepts of self-compassion and experiential avoidance as mediators of the relationship between internalized homophobia, Substance Use, and Risky Sexual Behavior among Men Who Have Sex with Men* (Doctoral dissertation, Alliant International University).
- Higgins, J. P., Thompson, S. G., Deeks, J. J., & Altman, D. G. (2003). Measuring inconsistency in meta-analyses. *BMJ*, *327*(7414), 557-560.
<https://doi.org/10.1136/bmj.327.7414.557>.
- Homan, K. J. (2016) Self-Compassion and Psychological Well-Being in Older Adults. *J Adult Dev* *23*, 111–119. <https://doi.org/10.1007/s10804-016-9227-8>
- Huey Jr, S. J., & Jones, E. O. (2013). Improving treatment engagement and psychotherapy outcomes for culturally diverse youth and families. *Handbook of Multicultural Mental Health*, 427-444.
- Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting for error and bias in research findings* (2nd ed.). Sage.
- Iskender, M. (2009). The relationship between self-compassion, self-efficacy, and control belief about learning in Turkish university students. *Social Behavior and Personality*, *37*, 711-720.
<https://doi.org/10.2224/sbp.2009.37.5.711>.
- Johnson, E. A., & O'Brien, K. A. (2013). Self-Compassion soothes the savage ego-threat system: Effects on negative affect, shame, rumination, and depressive symptoms. *Journal of Social and Clinical Psychology*, *32*(9), 939-963.
<https://doi.org/10.1521/jscp.2013.32.9.939>.

Kashdan, T. B., & Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. *Clinical Psychology Review*, 30(7), 865-878.

<https://doi.org/10.1016/j.cpr.2010.03.001>.

*Kılıç, A., Hudson, J., Scott, W., McCracken, L. M., & Hughes, L. D. (2022). A 12-month longitudinal study examining the shared and unique contributions of self-compassion and psychological inflexibility to distress and quality of life in people with Type 2 Diabetes. *Journal of Psychosomatic Research*, 155, 110728.

<https://doi.org/10.1016/j.jpsychores.2022.110728>

Krafft, J., Ferrell, J., Levin, M. E., & Twohig, M. P. (2018). Psychological inflexibility and stigma: A meta-analytic review. *Journal of Contextual Behavioral Science*, 7, 15-28.

<https://doi.org/10.1016/j.jcbs.2017.11.002>

*Kramer, R. A., (2018) *Yoga as an intervention among college students: Measuring changes in body dissatisfaction, disordered eating, self-compassion, mindfulness, and experiential avoidance*. [University of North Dakota, Theses and Dissertations] 2257.

<https://commons.und.edu/theses/2257>

Kirby, J. N., Day, J., & Sagar, V. (2019). The 'Flow' of compassion: A meta-analysis of the fears of compassion scales and psychological functioning. *Clinical Psychology Review*, 70, 26-39. DOI: [10.1016/j.cpr.2019.03.001](https://doi.org/10.1016/j.cpr.2019.03.001)

[10.1016/j.cpr.2019.03.001](https://doi.org/10.1016/j.cpr.2019.03.001)

Landis, J. R., & Koch, G. G. (1977). An application of hierarchical kappa-type statistics in the assessment of majority agreement among multiple observers. *Biometrics*, 363-374.

<https://doi.org/10.2307/2529786>.

Larkin, P. (2014). *Development and validation of the Flexibility of Responses to self-critical Thoughts Scale (FoReST)* (Doctoral dissertation, University of Glasgow).

- Lenhard, W., & Lenhard, A. (2016). Calculation of effect sizes. Retrieved from:
https://www.psychometrica.de/effect_size.html. Dettelbach (Germany):
Psychometrica. DOI: 10.13140/RG.2.1.3478.4245.
- Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. (2007). Self-Compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of Personality and Social Psychology*, 92(5), 887-904.
<https://doi.org/10.1037/0022-3514.92.5.887>.
- Levin, M. E., Hildebrandt, M. J., Lillis, J., & Hayes, S. C. (2012). The impact of treatment components suggested by the psychological flexibility model: A meta-analysis of laboratory-based component studies. *Behavior Therapy*, 43(4), 741-756.
<https://doi.org/10.1016/j.beth.2012.05.003>
- 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(8), 1878-1891.
<https://doi.org/10.1007/s12671-021-01626-4>.
- Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis*. Sage.
- Lockard, A. J., Hayes, J. A., Neff, K., & Locke, B. D. (2014). Self-compassion among college counseling center clients: An examination of clinical norms and group differences. *Journal of College Counseling*, 17(3), 249-259.
<https://doi.org/10.1002/j.2161-1882.2014.00061.x>
- López, A., Sanderman, R., Smink, A., Zhang, Y., Van Sonderen, E., Ranchor, A., & Schroevers, M. J. (2015). A reconsideration of the Self-Compassion Scale's total score: self-compassion versus self-criticism. *PloS one*, 10(7), e0132940.

- *Mak, W.W., Chio, F.H., Chong, K.S., & Law, R.W. (2021). From mindfulness to personal recovery: the mediating roles of self-warmth, psychological flexibility, and valued living. *Mindfulness*, 12, 994 - 1001.
- *Marshall, E. J., & Brockman, R. N. (2016). The relationships between psychological flexibility, self-compassion, and emotional well-being. *Journal of Cognitive Psychotherapy*, 30(1), 60-72.
<https://doi.org/10.1891/0889-8391.30.1.60>.
- *Mazumdar, K., Sen, I., Gupta, P., & Parekh, S. (2021). Psychological well-being of Indian mothers during the COVID-19 pandemic: The roles of self-compassion, psychological inflexibility, and parenting stress. *International Perspectives in Psychology: Research, Practice, Consultation*, 10(3), 155–162. <https://doi.org/10.1027/2157-3891/a000024>
- *McLean, C. L., Fiorillo, D., & Follette, V. M. (2018). Self-Compassion and psychological flexibility in a treatment-seeking sample of women survivors of interpersonal violence. *Violence and victims*, 33(3), 472-485. <http://dx.doi.org/10.1891/0886-6708.VV-D-17-00017>.

McKenzie J.E., Brennan S.E., Ryan R.E., Thomson H.J., Johnston R.V., Chapter 9: Summarizing study characteristics and preparing for synthesis. In: Higgins JPT, Thomas J., Chandler J., Cumpston M., Li T., Page M.J., Welch V.A. (editors). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.3 (updated February 2022). Cochrane, 2022. Available from www.training.cochrane.org/handbook

- *Mendes, A.L., Canavarro, M.C. & Ferreira, C. The roles of self-compassion and psychological flexibility in the psychological well-being of adolescent girls. *Curr Psychol* (2022). <https://doi.org/10.1007/s12144-021-02438-4>
- Mendoza, H., Tully, E. C., Goodnight, B., Gray, J., & Masuda, A. (2018). The indirect effect of self-concealment on distress through psychological inflexibility in Asian American, Black American, and White American college students. *Personality and Individual Differences, 126*, 93-98.
<https://doi.org/10.1016/j.paid.2018.01.024>.
- *Meyer, E. C., Szabo, Y. Z., Frankfurt, S. B., Kimbrel, N. A., DeBeer, B. B., & Morissette, S. B. (2019). Predictors of recovery from post-deployment posttraumatic stress disorder symptoms in war veterans: The contributions of psychological flexibility, mindfulness, and self-compassion. *Behaviour Research and Therapy, 114*, 7-14.
<https://doi.org/10.1016/j.brat.2019.01.002>
- *Monteiro, F., Fonseca, A., Pereira, M., Alves, S., & Canavarro, M.C. (2019). What protects at-risk postpartum women from developing depressive and anxiety symptoms? The role of acceptance-focused processes and self-compassion. *Journal of Affective Disorders, 246*, 522-529.
<https://doi.org/10.1016/j.jad.2018.12.124>.
- *Moreira, H., & Cristina Canavarro, M. (2020). Mindful parenting is associated with adolescents' difficulties in emotion regulation through adolescents' psychological inflexibility and self-compassion. *Journal of Youth and Adolescence, 49*(1), 192–211.
<https://doi.org/10.1007/s10964-019-01133-9>

- Muris, P., & Petrocchi, N. (2017). Protection or vulnerability? A meta-analysis of the relations between the positive and negative components of self-compassion and psychopathology. *Clinical Psychology & Psychotherapy*, *24*(2), 373-383.
<https://doi.org/10.1002/cpp.2005>.
- Muris, P., van den Broek, M., Otgaar, H., et al. (2018). Good and bad sides of self-compassion: A face validity check of the Self-Compassion Scale and an investigation of its relations to coping and emotional symptoms in non-clinical adolescents. *Journal of Child and Family Studies*, *27*(8), 2411-2421. <https://doi.org/10.1007/s10826-018-1099-z>
- Neff, K. D., Pisitsungkagarn, K., & Hsieh, Y. (2008). Self-Compassion and self-construal in the United States, Thailand, and Taiwan. *Journal of Cross-Cultural Psychology*, *39*, 267-285.
<https://doi.org/10.1177/0022022108314544>.
- Neff, K. D., & Germer, C. K. (2013). A pilot study and randomized controlled trial of the mindful self-compassion program. *Journal of Clinical Psychology*, *69*(1), 28-44.
<https://doi.org/10.1002/jclp.21923>.
- Neff, K. D., Long, P., Knox, M. C., Davidson, O., Kuchar, A., Costigan, A., Williamson, Z., Rohleder, N., Tóth-Király, I., & Breines, J. G. (2018). The forest and the trees: Examining the association of self-compassion and its positive and negative components with psychological functioning. *Self and identity*, *17*(6), 627-645.
<https://doi.org/10.1080/15298868.2018.1436587>

- *Nonaka, S., & Sakai, M. (2021). Psychological factors associated with social withdrawal (hikikomori). *Psychiatry Investigation*, 18(5), 463–470.
<https://doi.org/10.30773/pi.2021.0050>
- *O'Boyle-Finnegan, Ú., Graham, C.D., Doherty, N., & Adair, P. (2022). Exploring the contribution of psychological flexibility processes and self-compassion to depression, anxiety and adjustment in parents of preterm infants. *Journal of Contextual Behavioral Science*, 24, 149-159.
<https://doi.org/10.1016/j.jcbs.2022.05.002>.
- Odou, N., & Brinker, J. (2015). Self-Compassion, a better alternative to rumination than distraction as a response to negative mood. *The Journal of Positive Psychology*, 10(5), 447-457.
<https://doi.org/10.1080/17439760.2014.967800>.
- Ong, C. W., Barney, J. L., Barrett, T. S., Lee, E. B., Levin, M. E., & Twohig, M. P. (2019). The role of psychological inflexibility and self-compassion in acceptance and commitment therapy for clinical perfectionism. *Journal of Contextual Behavioral Science*, 13, 7-16.
<https://doi.org/10.1016/j.jcbs.2019.06.005>.
- Orwin, R. G. (1983). A fail-safe N for effect size in meta-analysis. *Journal of Educational Statistics*, 8(2), 157-159.
<https://doi.org/10.2307/1164923>.

- Orwin, R. G., & Vevea, J. L. (2009). Evaluating coding decisions. In H. Cooper, L. V. Hedges, & J. C. Valentine (Eds.), *The Handbook of Research Synthesis and Meta-Analysis* (pp. 177–203). Sage.
- 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. *International Journal of Surgery*, 88, 105906.
<https://doi.org/10.1016/j.ijssu.2021.105906>.
- *Palcan, M. (2016). *The mindful therapist trainee: An exploratory study of the in-session internal experiences of beginning therapists*. [The Chicago School of Professional Psychology] ProQuest Dissertations Publishing, 10107772.
- Park, S., & Beretvas, S. N. (2019). Synthesizing effects for multiple outcomes per study using robust variance estimation versus the three-level model. *Behavior Research Methods*, 51(1), 152-171.
<https://doi.org/10.3758/s13428-018-1156-y>.
- *Pinciotti, C. M., Seligowski, A. V., & Orcutt, H. K. (2017). Psychometric properties of the PACT Scale and relations with symptoms of PTSD. *Psychological Trauma: Theory, Research, Practice, and Policy*, 9(3), 362–369. <https://doi.org/10.1037/tra0000206>
- *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. <https://doi.org/10.3109/14647273.2011.654310>

Plys, E., Jacobs, M. L., Allen, R. S., & Arch, J. J. (2022). Psychological flexibility in older adulthood: a scoping review. *Aging & Mental Health*, 1-13.

<https://doi.org/10.1080/13607863.2022.2036948>.

Prudenzi, A., Graham, C. D., Clancy, F., Hill, D., O'Driscoll, R., Day, F., & O'Connor, D. B. (2021). Group-based acceptance and commitment therapy interventions for improving general distress and work-related distress in healthcare professionals: A systematic review and meta-analysis. *Journal of Affective Disorders*, 295, 192-202.

<https://doi.org/10.1016/j.jad.2021.07.084>.

*Pyszkowska, A., & Rönnlund, M. (2021). Psychological flexibility and self-compassion as predictors of well-being: Mediating role of a balanced time perspective. *Frontiers in Psychology*, 12, 671746. <https://doi.org/10.3389/fpsyg.2021.671746>

R Core Team. (2018). R: A language and environment for statistical computing. *R Foundation for Statistical Computing*. <https://www.R-project.org/>

Roger, D., Jarvis, G., & Najarian, B. (1993). Detachment and coping: The construction and validation of a new scale for measuring coping strategies. *Personality and Individual Differences*, 15(6), 619-626.

*Rolffs, J. L., Rogge, R. D., & Wilson, K. G. (2018). Disentangling components of flexibility via the Hexaflex Model Development and Validation of the Multidimensional Psychological Flexibility Inventory (MPFI). *Assessment*, 25(4), 458–482. <https://doi.org/10.1177/1073191116645905>.

Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, 5(4), 296-320.

https://doi.org/10.1207/S15327957PSPR0504_2.

*Schreiber, R. E., & Veilleux, J. C. (2022). Perceived invalidation of emotion uniquely predicts affective distress: Implications for the role of interpersonal factors in emotional experience. *Personality and Individual Differences*, 184, Article 111191.

<https://doi.org/10.1016/j.paid.2021.111191>

*Schulz, S. (2016). *Self-compassion versus self-esteem as predictors of resilience and well-being* [Doctoral dissertation, Alliant International University]. ProQuest 10251503.

*Seligowski, A. V., Miron, L. R., & Orcutt, H. K. (2015). Relations among self-compassion, PTSD symptoms, and psychological health in a trauma-exposed sample. *Mindfulness*, 6, 1033-1041. DOI 10.1007/s12671-014-0351-x

Shapira, L. B., & Mongrain, M. (2010). The benefits of self-compassion and optimism exercises for individuals vulnerable to depression. *The Journal of Positive Psychology*, 5(5), 377-389.

<https://doi.org/10.1080/17439760.2010.516763>.

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.

<https://doi.org/10.1002/jclp.22076>.

Stenhoff, A., Steadman, L., Nevitt, S., Benson, L., & White, R. G. (2020). Acceptance and commitment therapy and subjective wellbeing: A systematic review and meta-analyses

of randomised controlled trials in adults. *Journal of Contextual Behavioral Science*, 18, 256-272.

<https://doi.org/10.1016/j.jcbs.2020.08.008>.

Tavakoli, N., Broyles, A., Reid, E. K., Sandoval, J. R., & Correa-Fernández, V. (2019).

Psychological inflexibility as it relates to stress, worry, generalized anxiety, and somatization in an ethnically diverse sample of college students. *Journal of Contextual Behavioral Science*, 11, 1-5. <https://doi.org/10.1016/j.jcbs.2018.11.001>

*Taylor, P. (2012). *Relations between the self and others: Recalled childhood invalidation, self-compassion, and interpersonal relationships* [Doctoral dissertation, University of Guelph].

The jamovi project (2022). *jamovi* (Version 2.3) [Computer Software]. Retrieved from

<https://www.jamovi.org>

Viechtbauer W (2010). Conducting meta-analyses in R with the metafor package. *Journal of Statistical Software*, 36(3), 1–48. <https://doi.org/10.18637/jss.v036.i03>.

Vigna, A. J., Poehlmann-Tynan, J., & Koenig, B. W. (2018). Does self-compassion covary with minority stress? Examining group differences at the intersection of marginalized identities. *Self and Identity*, 17(6), 687-709.

<https://doi.org/10.1080/15298868.2018.1457566>

Vigna, A. J., Poehlmann-Tynan, J., & Koenig, B. W. (2020). Is self-compassion protective among sexual-and gender-minority adolescents across racial groups? *Mindfulness*, 11(3), 800-815. <https://doi.org/10.1007/s12671-019-01294-5>

*Wang, H., Wang, J., Wei, X., & Lei, L. (2023). Cyber dating abuse victimization and experiential avoidance among Chinese female adolescents: The roles of self-

compassion and interpersonal flexibility. *Journal of Interpersonal Violence*, 38(3-4), 4416–4442. <https://doi.org/10.1177/08862605221116316>

Wegner, D. M., & Zanakos, S. (1994). Chronic thought suppression. *Journal of Personality*, 62, 615–640.

*Wendling, H. M. (2012). *The relation between psychological flexibility and the Buddhist practices of meditation, nonattachment, and self-compassion* [Master's thesis, The University of Akron].

Wersebe, H., Lieb, R., Meyer, A. H., Hofer, P., & Gloster, A. T. (2018). The link between stress, well-being, and psychological flexibility during an Acceptance and Commitment Therapy self-help intervention. *International Journal of Clinical and Health Psychology*, 18(1), 60-68. <https://doi.org/10.1016/j.ijchp.2017.09.002>

*Wetterneck, C. T., Lee, E. B., Smith, A. H., & Hart, J. M. (2013). Courage, self-compassion, and values in obsessive-compulsive disorder. *Journal of Contextual Behavioral Science*, 2(3-4), 68-73. <https://doi.org/10.1016/j.jcbs.2013.09.002>

*White, R. G., Larkin, P., McCluskey, J., Lloyd, J., & McLeod, H. J. (2020). The Development of the ‘Forms of Responding to Self-Critical Thoughts Scale’(FoReST). *Journal of Contextual Behavioral Science*, 15, 20-29. DOI:10.1016/j.jcbs.2019.11.003

*Whittingham, K., & Mitchell, A. E. (2021). Birth, breastfeeding, psychological flexibility and self-compassion as predictors of mother-infant emotional availability in a cross-sectional study. *Infant Mental Health Journal*, 42(5), 718-730. <https://doi.org/10.1002/imhj.21935>.

- Williams, E. C. (2015). *Self-compassion and self-forgiveness as mediated by rumination, shame-proneness, and experiential avoidance: Implications for mental and physical health* [Master's thesis, East Tennessee State University]. Electronic Theses and Dissertations, Paper 2562. <https://dc.etsu.edu/etd/2562>
- Wilson, K. G., Sandoz, E. K., Kitchens, J., & Roberts, M. (2010). The Valued Living Questionnaire: Defining and measuring valued action within a behavioral framework. *The Psychological Record, 60*, 249-272.
- Yadavaia, J. E., Hayes, S. C., & Vilardaga, R. (2014). Using acceptance and commitment therapy to increase self-compassion: A randomized controlled trial. *Journal of Contextual Behavioral Science, 3*, 248-257.
<https://doi.org/10.1016/j.jcbs.2014.09.002>.
- Zhang, H., Li, J., Sun, B., & Wei, Q. (2021). Effects of childhood maltreatment on self-compassion: a systematic review and meta-analysis. *Trauma, Violence, & Abuse, 15*(248380211043825).
<https://doi.org/10.1177/15248380211043825>
- Zessin, U., Dickhäuser, O., & Garbade, S. (2015). The relationship between self-compassion and well-being: A meta-analysis. *Applied Psychology: Health and Well-Being, 7*(3), 340-364.
<https://doi.org/10.1111/aphw.12051>.

Appendix A

Countries represented in study

Country	# of Studies	Percent of total
United States (U.S.)	39	33.1%
Portugal	30	25.4%
Finland	28	23.7%
China	6	5.1%
United Kingdom	4	3.4%
England	3	2.5%
Japan	2	1.7%
Australia	1	0.8%
India	1	0.8%
Poland	1	0.8%
Canada	1	0.8%
U.S. and Canada	1	0.8%
New Zealand and Australia	1	0.8%

Appendix B

Number of studies reporting ethnicity and race

Ethnicity	# of studies reporting group	# of studies missing group
White or European American	26	18
Hispanic or Latina/o	19	25
Other	18	26
Black or African American	17	27
Asian or Asian American	15	29
American Indian or Alaskan Native	9	35
Arab Americans/People of Middle Eastern/North African descent	6	38
Bi/Multiracial	6	38
Native Hawaiian or Other Pacific Islander	4	40
Eastern European	1	43