



## **Self-Compassion and the Pursuit of Personal Goals**

Submitted by Elizabeth Parry, to the University of Exeter  
as a thesis for the degree of Doctor of Clinical Psychology, May 2017

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**SCHOOL OF PSYCHOLOGY**  
**DOCTORATE IN CLINICAL PSYCHOLOGY**

**LITERATURE REVIEW**

**Self-Compassion and the Pursuit of Goals: A Systematic Review**

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## **Abstract**

Self-compassion has been found to be positively associated with many areas of well-being. However, there is concern that it may have negative consequences for goal pursuit. To address this concern, this review of the literature aimed to investigate the association between self-compassion and aspects of personal goal pursuit. Ten studies were identified from peer-reviewed journals that addressed this issue. The findings support a positive association between self-compassion and goal progress. There was also a positive association between self-compassion and aspects of goal pursuit that have been found to be associated with greater goal progress and well-being, such as intrinsic motivation, a learning orientation and less avoidance. A lack of experimental studies is identified as a limitation in the literature. The need for a clearer differentiation of self-compassion from other related concepts is also noted.

## Introduction

Neff (2003) has defined self-compassion as comprising of three elements: self-kindness, common humanity and mindfulness. Self-kindness involves being kind and understanding toward oneself when in pain or failing rather than being harshly self-critical. Common humanity is perceiving one's experiences as part of the larger human experience rather than as separating and isolating. Mindfulness is holding painful thoughts and feelings in awareness without over-identifying with them (Neff, 2003).

Self-compassion itself is of increasing interest in mental health because of its demonstrated positive correlations with measures of happiness, well-being and life satisfaction and its negative correlations with anxiety and depression (Barnard & Curry, 2011). However, despite the possible benefits, both patients and students are sometimes reluctant to practice self-compassion for fear that that if they are “kinder and less self-critical their standards will drop” or they “will become someone they do not want to be” (Gilbert, McEwan, Catarino, Baiao, & Palmeira, 2014; Gilbert, McEwan, Matos, & Ravis, 2011).

Self-compassion exercises do lead to a reduction in self-criticism (Krieger, 2016). Whether this will lead to the consequences feared is unknown. This uncertainty raises questions about the impact of self-compassion on goal pursuit. Goals have been defined as “internal representations of desired states” (Austin & Vancouver, 1996, p. 338). Their successful pursuit affects our well-being and ability to live in accordance with our values (Galand, Boudrenghien, & Rose, 2012; Koestner, 2008). It is important to understand how, if at all, self-compassion affects this success.

Mechanisms related to goal pursuit are likely to affect its relationship to self-compassion. The two most important are probably motivation and goal orientation. Ryan and Deci (2000) identify five types of motivation. These differ in their degree of autonomy, ranging from intrinsic, where the activity is rewarding in itself and the motivation comes from within, to external where the motivation is driven by external rewards or punishments. Externally-motivated goals have been associated with less creativity, less persistence and more negative affect than autonomous goals (Ryan & Deci, 2000). Goal orientation has been variously named and measured but is commonly understood as comprising three factors (VandeWalle, Cron, & Slocum, 2001): learning goal orientation (LGO), a desire to learn new skills and performance goal orientations (PGO), a desire to demonstrate your ability, which is further divided into approach (PPGO) and avoidance (PVGO). LGO is associated with greater self-efficacy and feedback seeking and PVGO with greater anxiety and lower achievement in academic settings (Linnenbrink & Pintrich, 2002; Payne, Youngcourt, & Beaubien, 2007) Self-compassion may be an advantage when pursuing goals if it enables people to have intrinsic motivation and a learning goal orientation, which may encourage remaining positive in the face of set-backs and self-efficacy.

Establishing a positive or negative association between self-compassion and either goal achievement (and progress) or mechanisms related to goal achievement (such as quality of motivation or goal orientation) would be an important step. It would address the concerns of those who fear self-compassion. It would also count for or against the importance of self-compassion as an intervention target for those wanting to enhance goal pursuit. Therefore, in this review I will address the question: 'What is the association between self-compassion and personal goal pursuit?'

## **Method**

The Centre for Reviews and Dissemination (CRD) 'Guidance for Undertaking Reviews in Healthcare' (CRD, 2009) was used to guide the process for this systematic review and the Preferred Reporting and Items for Systematic Review and Meta-analysis Protocol (PRISMA) was followed for the writing of this report (Moher, Liberati, Tetzlaff, Altman, & the PRISMA Group, 2009).

### **Study eligibility criteria**

The PICOS (Population, Intervention/Exposure, Comparator, Outcome and Study Design) criteria recommended by the CRD (2009) was used but adapted to take account of the correlational nature of much of the data published in this area.

### **Participants**

In order to make the review as wide as possible, characteristics of the participant population were not used as an exclusion criterion. All ages were included and clinical and non-clinical samples were included.

### **Intervention/Exposure**

Self-compassion is defined as above. The only widely accepted and validated measure of self-compassion is the self-compassion scale (SCS; Neff, 2003). To keep the focus of this review on the specific concept of self-compassion, and not closely related concepts, such as mindfulness or self-acceptance, only measures and interventions that appeared to be consistent with Neff's (2003) definition were

included and complex interventions which included additional components were not included.

### **Comparator**

As the review is exploring association and not causation, correlational studies will be included where there is no comparator. Intervention studies may include a no-intervention control or an active control condition.

### **Outcomes**

Goal pursuit involves cognitive, behavioural and affective responses that include quality and quantity of motivation, self-efficacy, expectancy, effort, persistence, affect, well-being, rumination and progress (Austin & Vancouver, 1996). This review will consider the association between self-compassion and any of these processes when they are measured in relation to a participant's personal goals. There are other important aspects of goals, such as goal content (e.g., approach/avoidance orientation) and structure (e.g., specificity) which will not be considered here as the review is focused on the dynamic aspects of goal pursuit. The review will include studies examining goals that the participant is pursuing prior to the research and will exclude studies examining tasks/goals given by the researcher as these may not be valued by the participant.

### **Study designs**

All study designs, except qualitative studies and case studies, will be included but attention will be given to the design in the assessment of the quality of the evidence. Review articles will be excluded from the review.

### **Additional Criteria**

For feasibility reasons, only original research published in English in peer-reviewed journals will be included.

### **Information sources**

Eight databases were searched: Embase, PsycINFO, Web of Science®, MEDLINE®, PubMed, PsychARTICLES, Journals@OVID and Your Journals@OVID. In addition, reference lists from relevant articles were searched.

### **Search strategy**

Relevant search terms were identified from key papers, a discussion with researchers in the field and a search of keywords on the above databases. The final search terms used are detailed in Table 1. The search included all possible combinations of one term from each concept.

**Table 1**

*Search Terms.*

<b>Concept</b>	<b>Terms</b>
<b>Self-compassion</b>	self-compassion*
Goal Pursuit	goal*, motiv*, self-determin*, self-regulation, learn*, exercise, smoking, diet*, eat*, striving*, self-improvement, achiev*, self-efficacy, effort, persistence, self-indulgence,

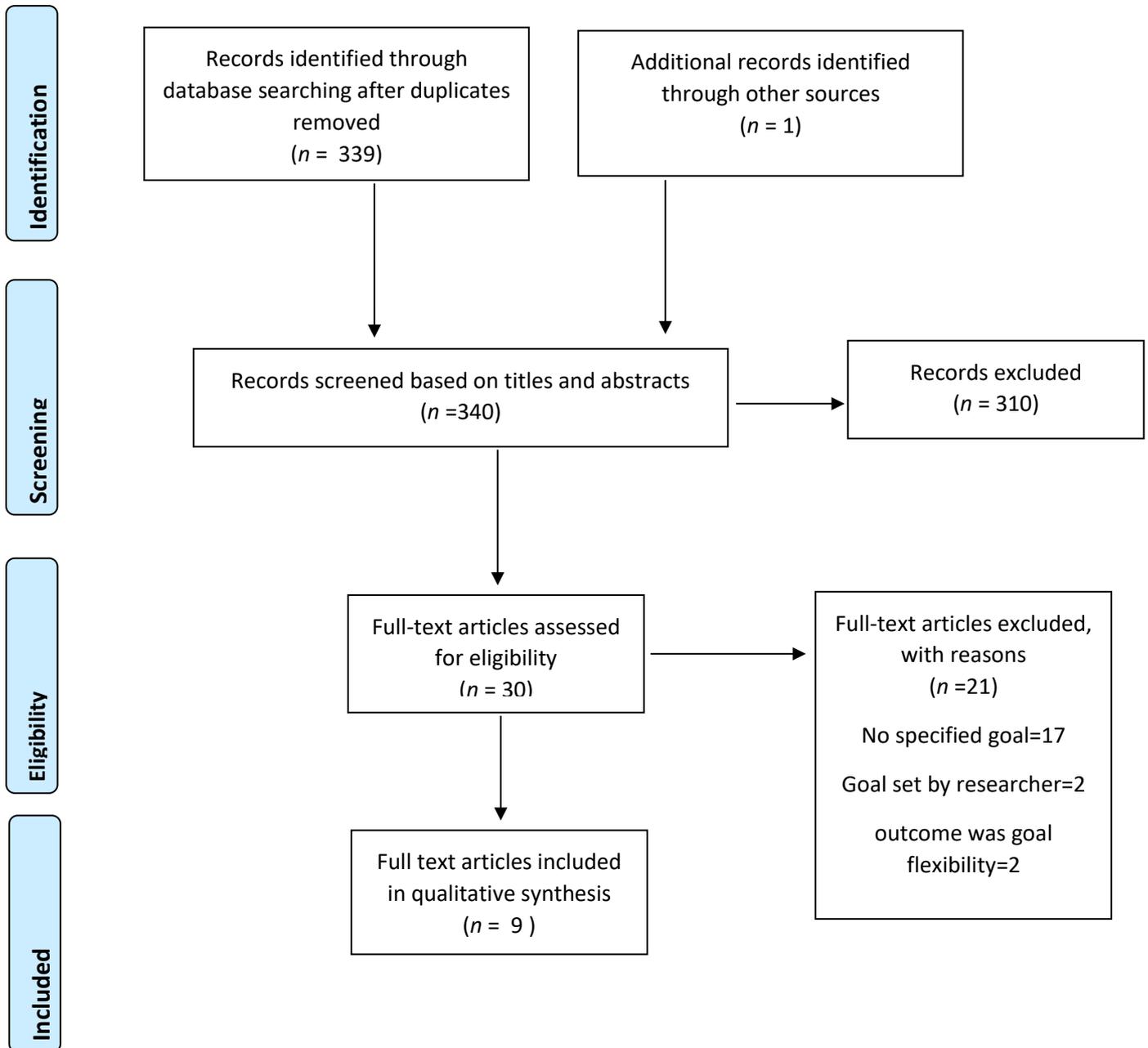
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complacency, failure.

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Articles published from the beginning of each database up to August 2016 were included. Following PRISMA, there was a two-stage process in which inclusion was initially judged based on titles and abstracts identified using the search strategy detailed above and then full versions of identified papers were obtained. Two raters looked at all the full-text papers and assessed them for inclusion. The percentage agreement was 80%, differences were discussed and a final decision made.

**Figure 1: Identification of Articles Flowchart**



### **Data Extraction**

For all included studies, information about study population and design and type of goal were extracted and noted on a paper form. Data on study findings, effect sizes and key limitations were also extracted (Table 2).

### **Evaluation Criteria**

Because correlational and causal evidence was relevant, a mix of study designs were included in the review, and therefore the Quality Assessment Tool for Quantitative Studies (Effective Public Health Practice Project, 1998) was used for intervention studies and the Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (National Heart Lung and Blood Institute, 2014) was used for cross-sectional studies. The tools were used to assess study limitations, but studies were not excluded from the review based on quality criteria although study quality was considered in the synthesis of results. Limitations to the studies identified from the quality tools are described in Table 2.

## **Results**

Nine articles were identified as including studies that met the inclusion criteria. One of these articles included two studies, resulting in a total of 10 included studies. Data extracted from these studies are detailed in Table 2, which is organized by study design.

**Table 2***Study Population and Design, Goal Measures, Limitations and Key Findings*

<b>Reference</b>	<b>Study Population</b>	<b>Study Design</b>	<b>Goal Type</b>	<b>Goal related outcomes</b>	<b>Key findings</b>	<b>Study Limitations</b>
1. Mantzios and Wilson (2015)	88 Military employees from a base in Greece intending to lose weight	RCT with 3 groups, Mindfulness meditation, mindful self-compassion (MLKM), no intervention control. Outcome measured at 5 weeks, 6 months and 12 months	Weight loss	Progress: Weight loss (objectively measured)	MLKM lost more weight than control group but not experimental group at 5 weeks, lost more weight than both groups at 6 months, no statistical difference between groups at 12 months although overall MLKM group lost more. Looking at non-cumulative effects, MLKM lost more weight than other two groups between 5 weeks and 6 months but gained more weight than the other two between 6 months and 12 months. However, 9/14 participants in the MLKM group declared at 6 months that they would stop meditating because they no longer needed to lose weight.	Participants self-selecting, randomization method not described, potential confounders not measured including trait self-compassion and motivation to lose weight, researchers not blinded, reliability of weighing not reported, less than 60% of the mindful self-compassion group completed the study while all controls stayed in the study meaning that the self-compassion group may be biased towards those with higher motivation, initial weight not controlled for in the analysis, small final groups (14 in self-compassion group) mean underpowered and results less reliable, data distribution not described.

Reference	Study Population	Study Design	Goal Type	Goal related outcomes	Key findings	Study Limitations
2. Kelly, Zuroff, Foa, and Gilbert (2010)	126 Current smokers intending to quit in community sample from McGill, USA	RCT with self-monitoring (control), self-monitoring plus either self-compassion, self-energising or self-controlling (enhancements). Outcome measured after 5 weeks.	Quitting smoking	Progress: Change in cigarettes smoked per a day.	<p>The interaction effect size in a model including time and group was <math>\eta^2 = 0.18</math>. The within group effect size for cumulative weight loss for the MLKM was <math>\eta^2 = 0.71</math></p> <p>Smoking reduced more for Self-compassion vs control (<math>r = .10</math>). No significant difference between the enhanced groups. Self-compassion training only associated with progress for those low in readiness to change (<math>r = .23</math>) not those high in readiness to change. Self-compassion training associated with progress for high (<math>r = .26</math>) but not low self-critics. Self-compassion training reduced smoking when there was a high level of self-compassion imagery vividness (<math>r = .28</math>) but not when there was low vividness.</p>	Self-selecting participants, researcher not blinded.

Reference	Study Population	Study Design	Goal Type	Goal related outcomes	Key findings	Study Limitations
3. Laidlaw et al. (2014)	9 St. Andrews, Scotland UG students	Pre-post design for self-compassion focused therapy. Outcome measures taken immediately post course and 6 months later.	Academic goal	Academic self-efficacy (Solberg, Obrien, Villareal, Kennel, & Davis, 1993)	An increase in self-efficacy pre- mean = 28.89 (7.24) immediate post, mean = 36.00 (9.56) and 6 months, mean = 40.33 (9.61) Not tested for significance.	Small group size, no control group. Purely descriptive. Self-selecting group, drop-out not reported. Large amount of missing data. Validity and reliability of outcome measure not reported. Attendance and compliance with homework not reported.
4. Hope, Koestner, and Milyavskaya (2014)	159 McGill, USA UG students	Prospective cohort with a week of daily diary entries and follow ups at 1 month (T1), 3 months (T2), 5 months(T3) and 7 months (T4).	idiographic goal	Subjective progress  Affective consequences of progress; (Diener & Emmons, 1984)  Degree of autonomous and controlled goal motivation.(Sheldon & Kasser, 1998)	For those with low SCS, poor goal progress associated with increase in negative affect ( $b = -.16$ ). No association for those with high SCS. SCS was related to goal progress at t1 ( $r=.20$ ) but not related to goal progress at T2 and T3. It was positively related to autonomous motivation at T1 and T3 ( $r=.22/ .25$ )and negatively with controlled ( $r=-.21$ ) motivation at T1 but not T3.	Study population not clearly defined – may not be representative, power not specified, validity and reliability of goal progress daily and T1, T4 measures not demonstrated. No analysis of missing data or description of those lost to follow-up.
5. Mantzios and Wilson (2014): Study 1	243 Greek university UG students seeking to lose weight	Prospective cohort with weight loss measured at 5 weeks.	Weight loss	Progress: Weight loss (objectively measured)  Cognitive-behavioural	SCS predicted weight loss ( $\beta = .43$ ) and explained additional variance to mindfulness ( $\Delta R^2 = .05$ ). SCS associated	Inclusion criteria not described, convenience sample. Loss to follow-up not reported. Did not control for potential confounders such as

Reference	Study Population	Study Design	Goal Type	Goal related outcomes	Key findings	Study Limitations
				avoidance scale (Ottenbreit & Dobson, 2004)	with cognitive-behavioural avoidance ( $\beta = -.27$ ) and mediated the relationship between cognitive-behavioural avoidance and weight loss.	gender or initial weight. SCS measured at the same time as cognitive behavioural avoidance and reverse mediation not checked so direction of mediation not clear.
6. Akin (2008)	646 Turkish UG students	Cross-sectional	Academic goal	Orientation: Achievement Goal Orientations Scale created by the author.	SCS subscales Self-kindness Common Humanity, Mindfulness positively correlated with learning approach ( $r = .59$ to $.83$ ) and learning avoidance ( $r = -.26$ to $.43$ ) and negatively correlated with performance approach ( $r = -.40$ to $-.31$ ) and performance avoidance ( $r = -.61$ to $-.49$ ). SCS subscales Self-Judgement, Isolation, Over identification positively correlated with learning avoidance ( $r = .22$ to $.55$ ), performance approach ( $r = .70$ to $.82$ ) and performance avoidance ( $r = .90$ to $.95$ ) and negatively associated with learning approach ( $r = -.50$ to $-.42$ ).	Validity of SCS not tested in this population or in this translation. Confounders not measured or controlled for. Sampling strategy and inclusion criteria not stated

Reference	Study Population	Study Design	Goal Type	Goal related outcomes	Key findings	Study Limitations
7. Neff, Hsieh, and Dejitterat (2005): Study 1	222 Educational psychology undergraduates from a southwestern American university.	Cross-sectional	Academic goal	Orientation: Goal orientation scale (Midgley et al., 1998)  Motivation: Autonomous regulation subscale of the learning self-regulation questionnaire (Williams & Deci, 1996)  Fear of failure (Herman, 1990)  Perceived competence for learning scale (Williams & Deci, 1996)	SCS positively correlated with intrinsic motivation ( $r = .30$ ) mastery goals ( $r = .28$ ), and perceived competence ( $r = .35$ ) and negatively correlated with performance-approach ( $r = -.13$ ), performance-avoidance ( $r = -.29$ ) and fear of failure ( $r = -.51$ ). The relationship between SCS and achievement goals was mediated by fear of failure and perceived competence. The relationship between SCS and intrinsic motivation was partially mediated by perceived competence and mastery goals.	Participation rate of eligible persons not described. All self-report collected at the same time. No power calculation. Means and SDs not reported.
8. Neff et al. (2005): Study 2	110 Undergraduates from psychology and engineering at American universities.	Cross-sectional. Selected only those who were highly dissatisfied with their midterm grade.	Academic goal	As for study 1 above plus:  Coping with failure: COPE scale (Carver, Scheier, & Weintraub, 1989)	When controlling for actual grades and gender SCS positively related to intrinsic motivation ( $B = .23$ ), mastery goals ( $B = .33$ ) and perceived competence ( $B = .33$ ), and negatively	Participation rate of eligible persons not described. All self-report collected at the same time. The validity and reliability of the COPE scale not shown in this context and some subscales had low internal reliability. No power

Reference	Study Population	Study Design	Goal Type	Goal related outcomes	Key findings	Study Limitations
					<p>correlated with performance-avoidance (<math>B = -.50</math>) but not significantly associated with performance-approach.</p> <p>There was a positive correlation between SCS and positive reinterpretation and growth (<math>r = .24</math>) and acceptance (<math>r = .22</math>) but negative correlation with venting of and focus on negative emotions (<math>r = -.30</math>). SCS was also negatively correlated with avoidance orientated strategies of denial (<math>r = -.22</math>) and mental disengagement (<math>r = -.20</math>) but no significant correlation between SCS and problem-focused coping strategies, the seeking of emotional support and behavioural disengagement.</p>	calculation. Means and SDs not reported.
9. Williams, Stark, and Foster (2008)	91 Undergraduates at a southwestern	Cross-sectional	Academic goal	Procrastination: Tuckman Procrastination Scale (Tuckman,	SCS negatively correlated with worry and emotionality about their academic	Convenience sample, inclusion criteria not specified, no power calculation/ variance or

Reference	Study Population	Study Design	Goal Type	Goal related outcomes	Key findings	Study Limitations
	university, USA			1991)  Orientation: Achievement goal orientation (Elliot & McGregor, 2001)  Academic worrying and anxiety subscales from the Motivational Trait Questionnaire (Heggestad & Kanfer, 2000)	work ( $r=-.33$ to $-.51$ ). SCS unrelated to academic achievement goal orientations. Those high on SCS procrastinated less than those with moderate or low self-compassion – effect size not reported.	effect estimates, all self-report given at the same time, no controlling for possible confounders. Although SCS measured as continuous variable analysis divided in to three groups thereby losing power. Selective reporting of correlations.
10.Magnus, Kowalski, and McHugh (2010)	252 Regular adult female exercisers at a Midwest Canadian university. Not limited to students.	Cross-sectional	Exercise goal	Motives: The Behavioural Regulations in Exercise Questionnaire (Mullan, Markland, & Ingledew, 1997)  Orientation: Goal Orientations in Exercise Measure.(Petherick & Markland, 2008)	Significant correlation between SCS and intrinsic ( $r = .19$ ) introjected ( $r = -.41$ ) and external motivation ( $r = -.24$ ) and ego goal orientation ( $r = -.20$ ). SCS predicted unique variance over self-esteem in introjected motivation (3.5% of variance) and ego goal orientation (2.8% of variance) but not external or intrinsic motivation.	Self-selecting group. Only self-esteem measured and adjusted for as a potential confounder.

Key: MLKM = mindful loving kindness meditation; SCS = Self-compassion Scale; UG = undergraduate; RCT = randomized control trial

### **General Strengths and Limitations of the Evidence Base.**

The study designs in this area limited the interpretation of the findings. Half of the studies are cross-sectional (6-10) and one fifth are cohort studies (4,5) meaning that it is not possible to infer any causation but only an association, which may be explained by other unspecified factors. There were three intervention studies: two Randomized Control Trials (RCTs) and one simple pre-post design with no control. The pre-post study was purely descriptive because of a low sample size. One of the RCTs had a large dropout from the self-compassion group which, without an intention to treat analysis, is likely to have biased the outcome and left the study underpowered, meaning the results are not reliable. This meant there was one intervention study, study 2, that would be considered as good quality on the quality rating scales.

There was a consistency in the definition of self-compassion due to the almost universal use of the SCS (9/10 studies) which was designed by Neff based on her aforementioned definition. The SCS has been shown to have good reliability and validity in a variety of groups (Neff, 2016). Study 2 trained their participants to use self-compassion imagery from Gilbert and Irons' (2005) compassionate mind training and study 1, used a loving kindness meditation, which included the three elements of self-compassion as defined by Neff. These interventions had face validity as self-compassion interventions. However, two of the intervention studies did not measure change in self-compassion, so it is not possible to know whether these interventions acted as intended. This means that the effect of the intervention may not be due to change in self-compassion, and likewise the absence of an effect may be due to a failure to change self-compassion. Few studies included covariates (e.g. mood) that

may be associated with self-compassion and thereby explain the effects, thereby limiting the extent to which the results can be attributed to something specific about self-compassion.

A wide range of goal-related variables were assessed that are all related to the dynamic aspects of goal pursuit. The constructs measured were goal progress (1,2,4,5), motivation quality and quantity (4,7,8,10), goal orientation (6,7), self-efficacy (3,7,8), affect in response to failure (4,7) and cognitive-behavioural coping strategies (5,8,9). This helps to build a story about how self-compassion may work but the inconsistency of outcome variables means that it was rarely possible to compare like with like and establish whether there were consistent findings.

Nearly all studies were based on undergraduate populations. There were only three studies that included other adult populations, one military personal and two university town community samples. These populations are unlikely to represent the diversity in the general population (Henrich, Heine, & Norenzayan, 2010), meaning that the results may not be generalizable. Similarly, the range of goals studied was limited with half of the studies focused on academic goals. Academic goals may differ from other goals, in clearer standards for assessing progress and more extrinsic motivation. They are useful to study when looking at motivation and persistence because they are likely to be important to students and difficult. However, the findings may not generalize to other goal types.

The measures used were mostly validated and shown to be reliable. The exceptions are; the SCS translation (6), self-efficacy (3), goal progress (4) and the COPE scale (8). However, both the self-compassion and the goal progress related measures were nearly all subjective self-reports, except for the studies measuring

weight loss and smoking reduction. This raises the problem of common method variance which may lead to an artificial inflation of the correlations.

### **The Association Between Self-compassion and Goal Progress**

There were four studies that looked at the relationship between self-compassion and goal progress; two observational (4,5) and two experimental (1,2). The observational results suggest there is a small positive association between trait self-compassion and both subjective goal progress on idiographic goals and objective goal progress (weight loss) over the short term (4,5). The intervention studies also found a small positive effect, in the short-term (5 weeks), for self-compassion based interventions for smoking reduction and weight loss in comparison to no intervention or self-monitoring controls, but no effect in comparison to active interventions including self-energising, self-controlling and mindfulness (1,2). The difficulty of interpreting these results is that the benefit of the self-compassion interventions in relation to the controls may be due to uncontrolled variables such as greater expectancy that it will be beneficial or other non-specific elements of the intervention. Study 1 did show a benefit of loving-kindness meditation at 6 months in comparison to an active intervention, mindfulness, but this needs to be interpreted with caution because of the large drop-out. Both long-term follow up studies failed to find an impact of self-compassion on goal progress after one year (1,4). The lack of impact at one year may be because the identified goals were no longer seen as important or had been achieved. Overall, there are consistent findings supporting a small positive association between self-compassion and goal achievement, but not strong evidence for a direct causal relationship. However, the use of objective measures, smoking reduction (2) and weight loss

(1,5), suggests that the association is not just that self-compassionate people are easier on themselves when judging progress.

### **The Relationship Between Self-compassion and Processes of Goal Pursuit**

An exploration of the mechanisms of goal pursuit in relation to self-compassion may deepen our understanding of when and how self-compassion may enhance goal progress. Four studies (4,7,8,10) looked at the association between self-compassion and motives for goal pursuit. All these studies found a significant positive correlation ( $r = .19$  to  $.30$ ) between trait self-compassion and autonomous motivation. This correlation existed for idiographic goals, academic goals and motivation to exercise. The two studies that looked at external motivation found a negative correlation with self-compassion (small for idiographic goals, medium for introjected motivation to exercise) (1,10). All these studies are limited by the use of self-report measures, in which social desirability biases may play a role in measures of self-compassion and intrinsic motivation. The studies are also all correlational designs so the relationship may not be causal.

Five studies examined the association between trait self-compassion and goal orientation: four with academic goals (6-9) and one with an exercise goal (10). Three of the five studies were consistent in finding a significant positive correlation between trait self-compassion and LGO and four of the five studies were consistent in finding a significant negative association between trait self-compassion and PGO. Effect sizes for the studies are hard to compare as the studies differed in whether they divided performance goal orientation into two factors and whether they used a total SCS score or sub-scales. Effect sizes vary from small to large. Study 10 did not find a significant correlation between SCS and task goal orientation for exercise

(similar to LGO) but it was consistent with the other studies in that the association was positive. Study 9 did not find any significant association between self-compassion and LGO, PVGO or PPGO. Unfortunately, they did not publish the correlations so it is not possible to tell whether they were in a consistent direction with the above findings, but it suggests that the effect size was small. All the studies were limited by shared method variance but study 8 and 10 were of better quality as they used validated measures and controlled for some possible confounders, e.g. gender. Overall, these studies are consistent in finding a positive association between trait self-compassion and LGO and a negative association between trait self-compassion and PGO. The better quality studies suggest the effect sizes are small.

Three studies looked at the relationship between trait self-compassion and academic goal self-efficacy/perceived competence in undergraduate students. A pre-post intervention study found there was a small increase in self-efficacy following brief compassion based training (3). The finding may not be reliable due to a small sample size and a 44% drop-out which is likely to have biased the sample. However, it is consistent with the findings from two studies by Neff and her colleagues (7,8), both of which found a moderate positive association between trait self-compassion and perceived competence for learning ( $r = .35$ ), an association that was robust when exam grades and gender were controlled for ( $\beta = .33$ ) (8).

Two studies were consistent in finding a small to moderate negative association between trait self-compassion and negative emotional responses to poor progress (4, 8). Both studies had limitations, including measures that had not been validated, that may mean these findings are not reliable and both studies were with undergraduates so they may not generalize.

In keeping with the negative association with PVGO described above, three studies consistently found a small to moderate negative association between trait self-compassion and avoidance orientated strategies: denial, mental disengagement, procrastination and cognitive-behavioural avoidance (5,8,9). All these studies have the limitation of using simultaneous self-report measures, without controlling for confounders and they were all with undergraduates. This means that associations are likely to be inflated and the findings may not be generalizable to other populations.

## **Discussion**

This review suggests there is a small positive association between self-compassion and goal progress. Consistent with this there is also a pattern of results suggesting that self-compassion is associated with adaptive approaches to goal pursuit; autonomous motivation, a learning goal orientation, less cognitive-behavioural avoidance and less negative affect in response to poor progress (Payne et al, 2007; Ryan & Deci, 2000). The results were consistent across different goal types (idiographic, academic, weight loss, exercise and smoking reduction) and across both subjective and objective progress indicators. There were no inconsistent findings in which different studies found opposite effects. Most effect sizes were in the small to medium range. However, some studies did not find a significant effect and effect sizes were variable.

There are several implications of this review. The first is that the current evidence base is weak. As self-compassion is a relatively new area of interest, the first study published related to goal pursuit and self-compassion was in 2005. Since

then there have only been eight further papers, suggesting that there is slow progress in this area. This is surprising given the potential usefulness of self-compassion in goal pursuit, and the importance of goals to people's well-being and as a way of understanding what people care about. This lack of progress is concerning as the gaps in the literature may be being ignored. Some claims currently being made for the benefits of self-compassion in relation to goal pursuit are not evidenced. For example, the claim that Kristen Neff makes on her website that "Research strongly supports the idea that self-compassion enhances motivation" (Neff, 2017) is not currently supported as no causal links have been shown between self-compassion and either quality or quantity of motivation.

However, despite the limitations of the evidence there is a consistent empirical story emerging that indirectly addresses some of the concerns about self-compassion identified in the study by Gilbert et al (2011). There is a negative association between self-compassion and avoidance strategies or goal orientation. This suggests that people who are self-compassionate are not driven to avoid failure. This may mean that it is less likely that self-compassion will be associated with the lowering of personal standards to avoid failure, but this has not been directly tested. Gilbert et al (2011) also found that people feared that "they will become someone they do not want to be". The association between self-compassion and intrinsic motivation suggests that more self-compassionate people tend to pursue the goals they value for their own sake rather than because of external pressures. There are also other important associations between self-compassion and affective aspects of goal pursuit, including less negative affect in response to set-backs and less performance-avoidance orientation, which is associated with anxiety.

A final issue raised by this review is the lack of evidence on the discriminant validity of self-compassion. The intervention studies that compared self-compassion induction with other active interventions did not find an additional benefit of self-compassion in the short term. Therefore, it may be that the benefit of the self-compassion intervention over the control conditions was a non-specific element of the intervention and not attributable to self-compassion. In the longer term (six months) there did appear to be some additional benefit of self-compassion over mindfulness (1). However, this finding may be unreliable because of the large drop-out. If it is a valid finding it may be that an advantage of self-compassion over mindfulness is in providing resilience in the face of failure, and that this would only be evident in the medium term when there is a greater probability that a set-back will have occurred. More longitudinal studies comparing to active controls are needed to explore this possibility.

### **Future Research**

The difficulty with interpreting the current evidence base is that much of the research is correlational. The experimental research is also limited and it is not clear which if any of the effects can be attributed specifically to change in self-compassion. Therefore, future research needs to focus on testing causal links between self-compassion and elements of goal pursuit. This means finding effective ways of inducing self-compassion that are consistent with the construct as defined by Neff (2003) and operationalized in the SCS (e.g. Kirschner, 2017). This would allow future research to build on the current literature. It is also possible that there may be causal links in the opposite direction, with the pursuit of goals leading to greater self-compassion or a positive spiral with both goal progress and self-compassion

fueling each other. This could be tested by inducing different ways of pursuing goals (e.g. Coote & MacLeod, 2012). It is also important not to assume that there is a linear relationship between self-compassion and goal progress or aspects of goal pursuit. It would be useful to recruit people at the extreme ends of the self-compassionate continuum to studies so that the possibility of a U-shaped relationship could be tested.

Future research needs to include possible covariates and active control groups so that any effects can be attributed specifically to self-compassion and not to other associated states or traits, for example high self-esteem, mindfulness or happiness. In further understanding self-compassion and what differentiates it from other constructs in relation to goal pursuit it may be important to break down the three elements of self-compassion (self-kindness, common humanity and mindfulness). A study of the five facets of mindfulness found that those high in the 'observe' but low in the 'non-judgement' facet were more depressed (Bravo, Boothe, & Pearson, 2016). Therefore, the 'non-judgemental' element of self-compassion may explain its association with well-being. In the context of goal pursuit, 'non-judgement' may be unhelpful if it means not judging one's own performance. Accurate judgements of performance are associated with greater goal achievement (Locke & Latham, 2002). It may be the non-comparative element (common humanity) that is useful if it leads to a more robust sense of self-worth which is not based on comparison to others and therefore less ego-protective behaviours such as avoidance (Crocker & Park, 2004). Future research could evaluate the most adaptive combination of the facets of self-compassion by using latent profile analysis techniques (Bravo et al., 2016).

## **Conclusion**

This review aimed to examine the association between self-compassion and elements of goal pursuit. Self-compassion was found to be positively associated with goal progress, autonomous motivation, a learning goal orientation and positive emotion-focused coping strategies in response to failure. Self-compassion was found to be negatively associated with cognitive-behavioural avoidance strategies, a performance avoidance goal orientation and negative affect in response to failure. The results suggest that self-compassion may be a helpful attribute for effectively pursuing personally important goals. However, the quality of the research evidence was poor, with most of the studies relying on correlational and self-report data, meaning that these associations may be inflated. The research has also relied heavily on student populations, meaning the results may not be generalizable. Future research needs to widen the populations studied, use experimental designs, and differentiate the effects of self-compassion from other similar constructs.

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**SCHOOL OF PSYCHOLOGY**

**DOCTORATE IN CLINICAL PSYCHOLOGY**

**EMPIRICAL PAPER**

**Is Self-Compassion Better Than Self-Esteem When Pursuing Personal Goals?**

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## Abstract

Setting and monitoring progress on personal goals has potential advantages for helping people achieve their goals. However, it may also have disadvantages for both goal progress and personal well-being if people start to focus on progress and external outcomes (e.g. academic grades) more than internal processes (e.g. interest in the subject). Self-compassion has been suggested as a trait that may help people cope with set-backs, maintain intrinsic motivation and achieve their goals. It may therefore be particularly helpful in overcoming some of the disadvantages of setting and monitoring personal goals. Self-compassion has previously been theoretically differentiated from self-esteem, with self-esteem seen as more contingent on positive self-judgements and success, suggesting that self-compassion may have additional benefits for maintaining individuals' intrinsic motivation. The aim of this study was therefore to test whether self-compassion exercises are more helpful than self-esteem exercises in the context of setting and monitoring goals. This was tested using a between group experimental design with two conditions: self-compassion and self-esteem. Ninety-four university students were randomly assigned to one of the conditions and followed a four-week goal setting and monitoring programme in relation to both an academic and social goal. The data showed that both inductions resulted in an increase in state self-compassion and self-esteem. There was no difference between the conditions in achievement of either goal over the four weeks. There was also no difference between conditions in the weekly association between poor progress and negative affect or change in goal commitment and autonomous motivation over the four weeks. However, the self-compassion condition was rated as more pleasant than the self-esteem condition. The results suggest that the self-compassion exercises

used may be more acceptable than the self-esteem exercises used but they are not better than the self-esteem exercises for enhancing goal pursuit. The study suggests that further research is needed to distinguish the motivational effects of self-compassion and self-esteem.

## Introduction

Personal goals can be defined as goals that the person has generated for themselves that represent a desired state for the individual (Austin & Vancouver, 1996; Emmons, 1986). Goals are an important area of research for people interested in well-being because research has shown that well-being is influenced by many aspects of personal goal pursuit, including motivation, response to set-backs and goal progress (Galand, Boudreghien, & Rose, 2012; Koestner, 2008). Therefore, research is needed that helps us to better enable individuals to have more adaptive forms of motivation, cope with set-backs and to ultimately achieve their desired goals.

One way people can maximise the chance of achieving their goals is by setting specific goals and monitoring progress (Locke & Latham, 2002). This approach of setting SMART goals (Specific, Measurable, Achievable, Realistic and Time limited) has been widely adopted. Setting specific goals helps people to direct attention and effort towards activities relevant to the goals, make better use of task-relevant knowledge and skills and increase effort and persistence towards the goals (Locke & Latham, 2002). Monitoring goal progress is also important because feedback enables people to change their strategies or increase their effort to get closer to their goals (Bandura & Cervone, 1983; Erez, 1977).

However, monitoring goals may also have some disadvantages when pursuing personal goals. One possible disadvantage is that poor goal progress is associated with negative affect (Klug & Maier, 2015) which may be exacerbated by an increased attention to discrepancies between the current state and the desired

state (Carver & Scheier, 2000). Research on personal achievement goals, which are goals relating to competing with standards of excellence, for example in academic studies, also suggests that when people receive feedback on goal progress the goals may become less intrinsically motivating (Rawsthorne & Elliot, 1999). If someone becomes less intrinsically motivated they become focused on progress as an external motivator rather than focusing on the process of goal pursuit. This may lead to lower persistence in pursuit of the goal, more negative affect, the choosing of easier goals and less learning and creativity in response to feedback (Ryan & Deci, 2000).

Therefore, it is important to understand how people can both benefit from goal monitoring and avoid the disadvantages. One trait that has been suggested as potentially helpful in the pursuit of goals is self-compassion because it may encourage intrinsic motivation and adaptive responses to failure (Neff, Hsieh, & Dejitterat, 2005). Self-compassion is defined by Neff (2003) as consisting of three components, self-kindness, common humanity (perceiving one's experiences as part of the larger human experience) and mindfulness (holding painful thoughts and feelings in balanced awareness) (Neff, 2003). Mindfulness may help people to maintain awareness of what is important to them in the pursuit of their goals and thereby encourage intrinsically motivated goals (Brown & Ryan, 2003). Self-kindness and common humanity may reduce external motivation and enable a balanced and adaptive response to feedback on progress, as people do not feel they need to avoid negative judgement or exaggerate their own success (Neff et al., 2005).

In support of this theory, several studies have found a positive association between trait self-compassion and intrinsic motivation for personal goals (Hope,

Koestner, & Milyavskaya, 2014; Magnus, Kowalski, & McHugh, 2009; Neff et al., 2005). Trait self-compassion has also been shown to be associated with more accurate self-evaluations, neither enhancing or deprecating self, following negative events (Leary, Tate, Adams, Allen, & Hancock, 2007), with less negative affect in response to poor goal progress (Hope et al., 2014) and with less avoidance-focused coping strategies in response to failure (Neff et al., 2005). These responses are likely to be adaptive, as the ability to make accurate evaluations and respond to feedback has been shown to be helpful in the pursuit of goals (Locke & Latham, 2002).

There have also been some successful intervention studies that suggest that self-compassion may contribute to effective goal pursuit. For example, self-compassion training increased success in weight loss in comparison to a no intervention control (Mantzios & Wilson, 2015) and reduced smoking in comparison to a self-monitoring control (Kelly, Zuroff, Foa, & Gilbert, 2010). As self-compassion in these studies was only shown to be effective in comparison to non-active controls it is not clear whether self-compassion is beneficial for the reasons suggested. The benefit of self-compassion induction may be indirect and mediated through other strongly related constructs. If this was the case, then inductions that targeted those concepts directly may be more powerful and elements of self-compassion may be redundant in relation to goal pursuit.

One closely related construct is self-esteem. This has strong positive associations with self-compassion but contrasts with it in involving judgements of self-worth (Neff & Vonk, 2009). Using self-report measures, Neff and Vonk (2009) found that in comparison with self-esteem self-compassion predicted feelings of self-worth that were more stable and less dependent on outcomes. When compared with

subjects induced to feel self-esteem those induced to feel self-compassion have been found to respond to a negative event with less negative affect and a greater willingness to take responsibility for it (Leary et al., 2007) and also to use more study time following a difficult test (Breines & Chen, 2012). Taken together these studies suggest that the non-judgemental attitude associated with self-compassion will lead to greater persistence in the pursuit of goals.

Self-criticism also appears on self-report measures to be closely related to self-compassion. Self-compassion has a strong negative correlation with the degree to which the respondent feels inadequate in response to failure, a dimension of self-criticism (the inadequate-self, IS) (Baião, Gilbert, McEwan, & Carvalho, 2015; Gilbert, McEwan, Matos, & Rivas, 2011). Self-criticism is associated with a fear of self-compassion (Gilbert et al., 2011) and Longe et al. (2010) found that being self-critical or self-reassuring in response to set-backs activated different brain areas. These non-experimental studies might suggest that high self-criticism would lessen the effects of inducing self-compassion. In keeping with this, one experimental study has found that those lower in self-criticism respond better to self-compassion induction (Kirschner, 2017). However, IS has been shown to reduce in response to self-compassion training (Krieger, Martig, van den Brink, & Berger, 2016) and Kelly et al. (2010) found that those high in self-criticism showed the most benefit from self-compassion exercises compared to a self-monitoring control. Therefore, it is unclear from the research whether those high or low in self-criticism are likely to benefit the most from inducing self-compassion.

Both self-esteem and self-criticism involve self-judgements, positive and negative respectively. Self-esteem may depend on the absence of the negative self-judgements associated with self-criticism and bring a reluctance to acknowledge

failure or pursue goals in which it may occur (Crocker & Park, 2004). By contrast those high in self-compassion do not judge themselves. Thus in the face of failure self-compassion may provide an antidote to self-criticism (Krieger et al., 2016) and enable acceptance and self-improvement. In these ways self-compassion is more likely than self-esteem to enable the successful pursuit of difficult goals. People who tend to be self-critical may benefit particularly from self-compassion even though they are most fearful of it.

In summary, research on self-compassion suggests that it can enhance goal attainment in comparison to no intervention controls but the experimental research on goal attainment is limited to smoking reduction and weight loss. Research on trait self-compassion suggests that possible mechanisms by which self-compassion enhances goal pursuit include maintaining intrinsic motivation, making more adaptive responses to failure and helping people to make realistic self-judgements, but this has not yet been tested in experimental research. High self-compassion is strongly associated with high self-esteem and low self-criticism. It is possible that the benefits of self-compassion in relation to goal pursuit may depend on its impact on these traits but there is research to suggest that it may have additional benefits, particularly in terms of how people respond to set-backs.

Self-compassion training appears to have the potential to address some of the possible disadvantages of goal monitoring. However, current experimental research has not looked at the impact of self-compassion induction on pursuit of personal goals for which progress is more subjective than weight loss or smoking reduction. Research has also not looked at the possible mechanisms through which goal progress may be enhanced, including its potential impact on self-esteem, self-criticism, negative affect, motivation, setting realistic targets and commitment.

The aim of this research is to test the impact of self-compassion exercises versus self-esteem exercises on the experience of pursuing personal goals when monitoring goal progress, in an undergraduate population. A structured goal setting and monitoring program including either a self-compassion or self-esteem reflection was developed for participants to follow over a period of 4 weeks.

The use of a self-esteem intervention as a comparison controls for the unspecified effects of the intervention, such as self-focus, participant expectancies and the experience of doing the exercises. It also means any difference between these conditions could be attributed to something specific about self-compassion that differentiates it from self-esteem.

Goal attainment at the end of four weeks, as measured by a pre-determined scale set by the participant at the beginning of the study, was the main outcome measure. Measures were also taken of variables that may explain the process by which self-compassion may enhance goal pursuit. Therefore, measures of autonomous and controlled motivation and goal commitment were taken at baseline and follow-up so that changes in these goal characteristics could be examined. As poor goal progress is associated with negative affect and self-compassion has been identified as a potential moderator of this relationship (Hope et al., 2014), weekly measures were also administered to assess the association between negative affect and goal progress.

Trait self-criticism, as measured on the inadequate-self subscale, was measured at baseline as it was identified as a potential individual difference which may moderate the impact of the intervention (Gilbert et al., 2011; Kelly et al., 2010).

To test the generalizability of the findings across different goal types, two goals were studied, an academic and relationship goal. These represented the two

domains of goal pursuit identified by Bakan: agentic (promoting the self) and communal (merging the self with others; Bakan, 1966) and were considered to be relevant to the study population. The association between self-compassion and goal attainment may also depend on goal commitment and difficulty, which are important goal-related appraisals (Emmons, 1986). In certain circumstances, such as when the goal is not difficult and the person has a high level of commitment to the goal, self-compassion is unlikely to be of any advantage as there may be no set-backs or the drive and ability to pursue the goal will overcome any set-backs. For this reason, goal difficulty and commitment were also measured as potential moderators and to check that the goals that participants chose were sufficiently important to them.

To assess whether the induction exercises impacted self-compassion and self-esteem as expected, a manipulation check was included in the first session and change in trait self-compassion over the study period was measured. In addition, quantitative and qualitative information was gathered on the experience of being part of the study.

## **Aims**

### **Primary research aim:**

- 1) To test whether a self-compassion induction, compared to a self-esteem control condition, enhances goal attainment over a period of four weeks.

### **Secondary research aims:**

- 2) To test whether a self-compassion induction, compared to a self-esteem control condition, buffers the negative association between weekly goal progress and negative affect.
- 3) To test whether the associations above are moderated by trait self-criticism.
- 4) To test whether the association between condition and goal progress is moderated by goal commitment and difficulty,

- 5) To identify possible mechanisms by which the self-compassion induction may enhance personal goal pursuit in comparison to self-esteem induction including whether it helps maintain goal commitment and autonomous motivation.

## **Hypotheses**

**Primary hypotheses.** For each type of goal:

**Hypothesis 1.** Relative to the self-esteem induction, participants receiving the self-compassion induction will report higher levels of goal attainment over a period of four weeks.

**Hypothesis 1a.** The relationship between condition and goal attainment will be moderated by trait self-criticism, with those high in trait self-criticism showing greater benefit from self-compassion induction.

**Hypothesis 1b.** This relationship between condition and goal attainment will be moderated by goal commitment and perceived difficulty, with the self-compassion induction having greater benefit in comparison to self-esteem induction for goals that are considered to be both important and difficult to pursue.

**Secondary hypotheses.** For each type of goal:

**Hypothesis 2.** Relative to participants in the self-esteem condition, the negative association between goal progress and negative affect will be weaker for participants in the self-compassion induction.

**Hypothesis 2a.** In addition, this relationship will be moderated by trait self-criticism, with the buffering effect of condition being stronger for participants higher in trait self-criticism.

**Hypothesis 3.** Relative to the self-esteem induction, the self-compassion induction will result in higher levels of goal commitment and autonomous motivation and lower levels of controlled motivation across the study period.

## Method

### Design

A between-groups experimental design was used. Participants were randomized to one of two conditions, self-compassion or self-esteem, using an online random number generator prior to recruitment. Both conditions followed an online goal setting and progress monitoring program, including setting and monitoring weekly targets and creating action plans. There was a baseline assessment (T1), weekly data collection over a period of four weeks (W1 to W4) and a final assessment at the end of week 4 (T2).

### Participants

A convenience sample of University of Exeter students was recruited through the psychology participation website. Participants were offered course credits and the chance to win £50. Inclusion criteria were being a full-time student (undergraduate or postgraduate), being able to commit to a four-week online study within term-time and fluency in English. Participants were excluded if they were taking part in another study or intervention with a focus on goal pursuit.

Ninety-four participants (85 females and 9 males; 92 undergraduates and 2 postgraduates) took part in the baseline session. Forty-seven participants were randomized to each condition. The age range was 17 to 34 years ( $M = 19.69$ ,  $SD = 3.62$ )<sup>1</sup>. Eighty participants are needed for an independent t-test to find a significant

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<sup>1</sup> Four dates of birth were not provided.

effect at a power of 0.80 with the parameters set at  $d = 0.6$  and  $\alpha = 0.05$  (see Appendix A1 for details).

## Materials and Measures

### Individual difference measures.

***The Inadequate Self Subscale of The Forms of Self-Criticising/Attacking and Self-Reassuring Scale (FSCRS-IS; Gilbert, Clarke, Hempel, Miles, & Irons, 2004).*** The FSCRS-IS is a 9 item scale that measures how people respond to failure, for example: 'I remember and dwell on my failings'. Each item is rated on a 5-point Likert scale. The subscale has good discriminant validity between clinical and non-clinical samples and good reliability (Baião et al., 2015). For this sample, the Cronbach alpha was .88 at T1.

***The Self-Compassion Scale (SCS; Neff, 2003).*** The SCS measures trait self-compassion and consists of 26 items and assesses self-kindness, self-judgement, common humanity, isolation, mindfulness, and over-identification. Each item is rated on a 5-point Likert scale (1 = *almost never* to 5 = *almost always*). The SCS has good test-retest reliability over a three-week interval ( $r = .93$ ; Neff, 2003), convergent, predictive and discriminant validity (Neff, 2016). The Cronbach alpha for this sample was .92 at T1 and .90 at T2.

***Patient Health Questionnaire–9 (PHQ-9; (Kroenke, Spitzer, & Williams, 2001).*** The PHQ-9 was used as a nine-item measure of depressive symptoms. It has good specificity and sensitivity for diagnosing major depression and distinguishes mild, moderate and severe depression (Kroenke et al., 2001). The Cronbach alpha for this sample was .83 at T1.

**Goal measures.**

**Goal elicitation.** Participants were asked to identify two goals: one academic and one social. They were asked to identify goals that were high in personal importance and meaning, were challenging and which required several weeks of ongoing effort and could not be completed within a four-week period. Instructions for identifying goals were based on those developed by Little (1983) and Emmons (1986). They were guided to make their goals specific and measurable so that progress could be tracked on a weekly basis. Full instructions are included in Appendix A1.

**Goal attainment scaling (GAS).** Sheldon and Elliot's (1998) goal attainment scaling procedure was used (see Appendix A2). This involves asking participants to set a concrete set of possible outcomes representing different degrees of progress at T1. They are asked to assess how much progress they expected to make in four weeks' time and identify 'a most likely outcome', 'a much less [progress] than expected outcome', 'a little less [progress] than expected outcome', 'a little more [progress] than expected outcome' and 'a lot more [progress] than expected outcome'. It was explained that the outcomes should be uni-dimensional, non-overlapping and have no gaps. Examples were given to help guide the participants and support was given by the researcher. Participants were then asked to indicate their level of attainment on a scale of 1 to 5, based on these concrete outcomes at T2.

**Autonomous and controlled goal motives.** Sheldon and Kasser's (1998) five items assessing reasons for personal goal pursuit scale were administered. The participant is asked 'to what extent are you pursuing your goal.....' for each of the following five motives: 'because of the fun and enjoyment which the goal will provide'

(intrinsic), 'because you really believe that it is an important goal to have' (identified), 'because it represents who you are and reflects what you value most in life' (integrated), 'because you would feel ashamed, guilty, or anxious if you didn't' (introjected) and 'because somebody else wants you to, or because you'll get something from somebody if you do' (external) motives. Each item is rated on a 7 point Likert scale from 1 (*not at all*) to 7 (*extremely*; Sheldon & Kasser, 1998). Autonomous (intrinsic, identified and integrated) motives and controlled (introjected and external) motives are differentially associated with outcomes (Koestner, Otis, Powers, Pelletier, & Gagnon, 2008) and were therefore examined independently. Autonomous motivation was calculated as the mean of intrinsic, identified and integrated scales. In this sample, the Cronbach alphas for autonomous motivation for the academic goal were .73 at T1 and .71 at T2 and for the relationship goal .74 at T1 and .82 at T2. Because there was a low internal consistency for the controlled motivation scale, the introjected and external motivation items were analyzed separately. Measures of goal motivation were taken at T1 and T2.

**Goal difficulty (Emmons, 1986).** This was measured at T1 using the item 'How difficult is it to make progress on this goal' measured on a 6 point Likert scale (1 = *not at all* to 6 = *extremely*).

**Goal commitment (Emmons, 1986).** This was measured at T1 and T2 using the item 'How committed are you to this goal?' measured on a 6 point Likert scale (1 = *not at all* to 6 = *extremely*).

**Self-compassion/self-esteem exercises.** At the baseline and in repeated weekly sessions participants completed a written reflection on their goal progress in the previous week. The instructions for the weekly reflection constituted the experimental manipulation. The self-compassion condition completed a reflection

designed to enhance self-compassion. The exercise involved writing a paragraph to themselves from a compassionate perspective and was completed immediately after reporting on goal progress and prior to creating an action plan for the following week. The self-esteem condition completed a similar exercise designed to enhance self-esteem (see Appendix A for details of both manipulations and the piloting of these exercises). The instructions were adapted from Breines and Chen (2012), who found that the two manipulations resulted in significantly different levels of self-improvement motivation on various outcome measures.

**Manipulation check.** A four-item scale adapted by Breines and Chen (2012) from Neff's SCS was administered before and after the first reflection exercise (Breines & Chen, 2012; Neff, 2003) to check that the manipulation functioned as intended. The short four-item scale, designed to measure state self-compassion, discriminated between conditions that had received self-compassion, self-esteem and positive distraction induction (Breines & Chen, 2012). The Cronbach alpha for the self-compassion items was .72 before and .75 after the manipulation. An additional self-esteem item was added, 'I'm feeling good about myself' to assess change in state self-esteem.

### **Weekly measures.**

**Goal progress.** Self-reported subjective weekly goal progress was measured for each goal with a single question rated on a 7 point Likert scale (1 = *not at all* to 7 = *very much*): 'Over the previous week do you feel you have made progress on this goal?'

**Weekly negative affect (NA).** The PANAS short form (Thompson, 2007) was used to measure weekly negative affect. The outcome of interest was negative

affect but positive items were included as their absence may have affected the validity of the scale. This 10-item scale includes five items measuring positive affect and five items measuring negative affect. Instructions asked participants to rate their affect over the past week. Each item is an adjective rated on a 5-point scale (0=*not at all* to 4=*extremely*). It has been shown to have good test-retest reliability over 8 weeks ( $r = .84$ ) and convergent validity (Thompson, 2007). The order of the items was randomized and participants were instructed to answer the extent to which they felt each adjective in the past week. In this sample, the Cronbach alpha ranged from .77 to .82 for negative affect.

**Acceptability of the study process and intervention.** At the end of the study, participants were asked to rate (i) how helpful they found taking part in the study on a scale from 1 (*extremely unhelpful*) to 10 (*extremely helpful*) and (ii) how pleasant they found taking part in the study on a scale from 1 (*extremely unpleasant*) to 10 (*extremely pleasant*). They were then asked follow-up open ended questions on what they found 1) helpful/unhelpful and 2) pleasant/unpleasant about taking part in the whole study.

## **Procedure**

The first session was conducted face-to-face to boost engagement, answer participants' questions before consenting and provide support with producing specific and measurable goals. Subsequent sessions were conducted online, with weekly reminders sent by email. Participants were emailed a summary of their action plan and targets for the following week. A table detailing the structure of baseline and weekly sessions is given in Appendix A4.

## Data Analysis

Data were analysed using SPSS v22 and MLwiN. Initial data exploration included inspection of means and correlations for each condition. Separate analyses were conducted for the academic and relationship goals for all hypotheses.

The primary hypothesis was tested using an independent group *t*-test with experimental condition as the group variable and goal attainment at T2 as the dependent variable. Moderation effects for the primary hypothesis were tested using multiple regression. The dependent variable was goal attainment. Moderator variables were T1 self-criticism, T1 goal difficulty and T1 goal commitment. Predictor variables were experimental condition and the moderator variables, with interaction terms for experimental condition and the moderators being tested. Predictors were mean centered to reduce multicollinearity. Experimental condition was coded as -1 (self-esteem condition) and +1 (self-compassion condition).

The secondary hypothesis was tested using multi-level modelling (MLM) with week representing level 1 and person representing level 2. MLM was used because it allows for the examination of associations between both individual difference variables and weekly measures of goal characteristics and negative affect while taking into account the non-independence of the weekly measures within participants (Khan & Shaw, 2011). To separate out individual differences from within-person weekly fluctuations, goal progress was centered around each person's mean reported weekly goal progress so that the score represented weekly fluctuations around mean goal progress for that person (Hope et al., 2014). An additional individual difference variable representing the mean goal progress was also added as a predictor so that between-person differences in goal progress could be modelled. All individual difference variables were grand-mean-centered to reduce

multicollinearity and experimental condition was coded as -1 (self-esteem condition) and +1 (self-compassion condition). In a hierarchical multi-level regression model predicting negative affect, the between-person predictors of experimental condition, T1 self-criticism and mean goal progress were entered at step-one, before weekly fluctuations in goal progress were entered at step 2 followed by the two-way interaction between condition and within-person fluctuations in progress at step 3 to test hypothesis 2. The moderating effect of trait self-criticism was then tested by adding two-way and three-way interaction terms for trait self-criticism, fluctuations in goal progress and experimental condition.

Hypothesis 3 was tested using a series of mixed ANOVAs to test for a significant interaction of time and condition, with experimental condition as a between-subject factor and time (T1 and T2) as a within-subject factor, for each of the following dependent variables: goal commitment, autonomous motivation and controlled motivation.

## **Results**

All participants completed the baseline questionnaires and goal setting session; 47 were randomized to the self-compassion condition and 47 to the self-esteem condition. 91 participants completed the final outcome data, 45 from the self-compassion condition and 46 from the self-esteem condition.

Ten participants, five from each condition (all undergraduates, nine females, one male), who missed two or more of the weekly follow up sessions were excluded from the per protocol (PP) analysis as they were considered not to have received a sufficient dose of the experimental manipulation. This left a final sample of 84 with

equal group sizes. Appendix B1 has further details of data cleaning and missing data.

### Manipulation Check

A mixed ANOVA, with time as the within-subject factor (pre and post the first reflection exercise) and condition as the between subject factor, showed a significant main effect of time reflecting overall increases in state self-compassion (pre:  $M = 15.46$ ,  $SD = 2.61$ , post:  $M = 16.14$ ,  $SD = 2.47$ ;  $F(1, 92) = 12.19$ ,  $p = .001$ ,  $\eta_p^2 = .12$ ) but no main effect for condition,  $F(1, 92) = 0.32$ ,  $p = .57$ ,  $\eta_p^2 < .01$ , and no significant interaction between time and condition,  $F(1, 92) = 0.43$ ,  $p = .51$ ,  $\eta_p^2 = .01$ . For the self-esteem item, there was also a significant main effect for time reflecting overall increases (pre:  $M = 3.64$ ,  $SD = 0.98$ , post:  $M = 3.79$ ,  $SD = 0.90$ ;  $F(1, 92) = 4.00$ ,  $p = .048$ ,  $\eta_p^2 = .04$ ) but no main effect for condition,  $F(1, 92) = 2.04$ ,  $p = .16$ ,  $\eta_p^2 = .02$ , and no significant interaction between time and condition,  $F(1, 92) < 0.01$ ,  $p > .99$ ,  $\eta_p^2 < .001$ .

A mixed ANOVA with time as the within-subject factor and condition as the between-subject factor was used to test longer-term change in trait self-compassion from T1 to T2. There was a significant main effect for time,  $F(1, 82) = 4.43$ ,  $p = .04$ ,  $\eta_p^2 = .05$ , with an overall increase in self-compassion at T2 (see Table 1) but there was no main effect of condition,  $F(1, 82) = 0.43$ ,  $p = .51$ ,  $\eta_p^2 < .01$  and no significant interaction between time and condition,  $F(1, 82) = 0.11$ ,  $p = .74$ ,  $\eta_p^2 < .01$ .

Therefore, both conditions increased in self-compassion (and self-esteem) during the reflection exercise and in self-compassion over the course of the study, but unexpectedly there was not a significant difference between conditions in change in either state or trait self-compassion. Although the manipulation check indicates that the manipulation may have failed, I proceeded to test the hypotheses.

## **Descriptives**

In preparation for the hypothesis testing, means (Table 1) and correlations (Tables 2 and 3) for T1 and T2 individual difference variables were calculated. As participants were randomised, it is not recommended to test for between group differences at T1 (de Boer, Waterlander, Kuijper, Steenhuis, & Twisk, 2015).

Table 1

*Means (Standard Deviations) for variables measured at T1 and T2 in each condition.*

		Self -Compassion Condition		Self-Esteem Condition	
		T1	T2	T1	T2
<b>SCS</b>		3.00 (0.61)	3.10 (0.78)	3.09 (0.67)	3.21 (0.77)
<b>FSCRS_IS</b>		19.33 (7.12)		16.83 (8.19)	
<b>PHQ-9</b>		7.47 (5.08)		7.00 (4.90)	
<b>Intervention helpful</b>			6.61 (1.84)		6.33 (1.65)
<b>Intervention pleasant</b>			7.34 (1.87)		6.52 (1.55)
<b>Difficulty</b>		3.59 (1.63)		3.69 (1.46)	
<b>Academic Goal</b>	<b>Commitment</b>	5.12 (0.93)	4.74 (1.15)	5.10 (0.96)	4.43 (1.21)
	<b>Autonomous Motivation</b>	4.66 (1.47)	4.68 (1.30)	4.23 (1.13)	4.31 (1.41)
	<b>Introject Motivation</b>	5.40 (1.61)	5.60 (1.23)	5.26 (1.65)	5.05 (1.53)
	<b>External Motivation</b>	2.57 (1.71)	3.33 (1.87)	2.48 (1.58)	3.10 (1.78)
	<b>Attainment (GAS)</b>		3.19 (0.77)		3.10 (.73)
	<b>Difficulty</b>	2.90 (1.17)		3.81 (1.71)	
<b>Relationship Goal</b>	<b>Commitment</b>	5.02 (1.02)	4.88 (1.37)	4.74 (1.01)	4.43 (1.35)
	<b>Autonomous Motivation</b>	6.00 (.87)	5.94 (1.12)	5.77 (1.08)	5.65 (1.16)
	<b>Introjected Motivation</b>	4.40(1.90)	4.21 (1.73)	3.64 (1.96)	3.67 (2.00)
	<b>External Motivation</b>	2.71(1.84)	3.00 (1.86)	2.81 (1.92)	2.95 (1.71)
	<b>Attainment (GAS)</b>		3.83 (0.91)		3.55 (1.06)

Table 2

*Correlations among T1 individual difference variables and goal attainment at T2 for the self-compassion condition.*

Variable	1	2	3	4	5
1 T1 FSCRS	-				
2 T1 SCS	-.77**	-			
3 T1 PHQ9	.43**	-.35*	-		
4 Academic Attainment	-.30	.31*	-.15	-	
5 Relationship Attainment	-.12	.19	-.16	.19	-

\*\*  $p < 0.01$  level (2-tailed). \*  $p < 0.05$  level (2-tailed).

Table 3

*Correlations between T1 individual difference variables and goal attainment at T2 for the self-esteem condition.*

Variable	1	2	3	4	5
1 T1 FSCRS	-				
2 T1 SCS	-.77*	-			
3 T1 PHQ9	.43**	-.26	-		
4 Academic Attainment	-.03	-.10	-.25	-	
5 Relationship Attainment	-.04	.19	-.05	-.04	-

\*\*  $p < 0.01$  level (2-tailed). \*  $p < 0.05$  level (2-tailed).

### Test of Primary Hypothesis

**Does self-compassion induction result in greater goal attainment than self-esteem induction.** Counter to the hypothesis, there was no significant

difference between conditions on either relationship or academic goal attainment (Academic goal: self-compassion condition  $M = 3.19$ ,  $SD = 0.77$ , self-esteem condition  $M = 3.10$ ,  $SD = 0.73$ ,  $t(82) = 0.58$ ,  $p = .56$ , cohen's  $d = 0.17$ ; relationship goal: self-compassion condition  $M = 3.83$ ,  $SD = 0.91$ , self-esteem condition  $M = 3.55$ ,  $SD = 1.06$ ,  $t(82) = 1.32$ ,  $p = .19$ , cohen's  $d = 0.28$ ). Despite the lack of a significant effect of condition on goal attainment, I proceeded to test the hypothesized possible interactions between condition and goal characteristics on goal attainment.

A parallel intention to treat (ITT) analysis for the primary hypothesis is reported in Appendix B3.

**Do goal commitment and goal difficulty moderate the relationship between experimental condition and goal attainment?** In a multiple regression, with goal commitment, goal difficulty and experimental condition as the predictors, there was no significant association between any of the predictors or interactions and goal attainment. Crucially, the three-way interaction was not a significant predictor of academic goal attainment ( $\beta = -.02$ ,  $\Delta R^2 = .01$ ,  $p = .84$ ) or relationship goal attainment ( $\beta = -.04$ ,  $\Delta R^2 = .01$ ,  $p = .74$ ). Therefore, hypothesis 1a was not supported for either goal (see Appendix B4 for full results table).

**Does trait self-criticism moderate the relationship between experimental condition and goal attainment?** In a multiple regression with experimental condition and trait self-criticism as predictors, there were no significant main effects on goal attainment. Crucially, the condition by trait self-criticism interaction was not a significant predictor of academic goal attainment ( $\beta = -.15$ ,  $\Delta R^2$

= .02,  $p = .17$ ) or relationship goal attainment ( $\beta = -.04$ ,  $\Delta R^2 < .01$ ,  $p = .73$ ).

Therefore, hypothesis 1b was not supported for either goal.

## Test of hypothesis 2

Table 4 shows the within-person correlations (above the diagonal) and the between person correlations (below the diagonal) among NA, academic goal progress and relationship goal progress. See Appendix B2 for weekly means.

Table 4

*Table of within- and between-person correlations for the weekly variables*

Variable	1	2	3
1 NA	-	-.18*	-.19*
2 Academic goal progress	-.20	-	.09
3 Relationship goal progress	-.15	.35*	-

\*Correlation is significant at the 0.05 level (2-tailed). Within-person correlations are displayed above the diagonal, between-person correlations are displayed below the diagonal.

**Does self-compassion induction, compared to self-esteem induction, buffer the negative association between weekly goal progress and negative affect?** This was tested using MLM as described above, with person-level predictors entered first, followed by within-person predictors and then cross-level interactions. The dependent variable was weekly negative affect. Person-level predictors were experimental condition, mean goal progress and trait self-criticism. Within-person predictors were weekly fluctuations in goal progress. The interaction between

condition and within-person fluctuations in goal progress served as the test of hypothesis 2. The interaction between condition, fluctuations in goal progress, and self-criticism served as the test of hypothesis 2a. Academic goal progress and relationship goal progress were tested in separate models. A summary of the model coefficients at the stage that they were entered are shown in Tables 5 and 6.

For both models, there was a significant positive association between trait self-criticism and mean level of weekly negative affect. Within-person fluctuations in both academic goal progress and relationship goal progress were significantly negatively associated with weekly negative affect, such that people reported lower levels of weekly negative affect on weeks when they reported more goal progress. There were no significant interactions between condition, trait self-criticism, and (within-person) goal progress for either goal. Therefore, hypothesis 2 and 2a were not supported for either goal.

Table 5

*Summary of Two-level Random Intercept Model Coefficients Exploring the Association of Experimental Condition, Trait Self-criticism and Academic Goal Progress with Weekly Negative Affect*

	B	SE (B)	z	p (2-tailed)
<i>Step 1- Person-level variables</i>				
Experimental condition	.03	.31	0.10	.46
Trait self-criticism	.21	.04	5.25	<.001
Mean academic goal progress	-.33	.29	-1.14	.13
<i>Step 2 - Week-level variables</i>				
Goal progress	-.35	.13	-2.70	<.01
<i>Step 3 - Interactions</i>				
Condition x trait self-criticism	-.03	.04	-0.75	.23
Condition x (within person) goal progress	-.14	.15	-0.93	.18
Self-criticism x (within person) goal progress	<.01	.02	0.17	.43
Condition x trait self-criticism x (within person) goal progress	<.01	.02	0.44	.32
Random effect $u_{0j}$ (SE)	5.88 (1.19)			
Random effect $e_{0ij}$ (SE)	6.79 (.61)			

*Note.* Experimental condition was coded as -1 = self-esteem, 1 = self-compassion.

Table 6

*Summary of Two-level Random Intercept Model Coefficients Exploring the Association of Experimental Condition, Self-criticism and Relationship Goal Progress on Weekly Negative Affect*

	B	SE (B)	z	p (2-tailed)
<i>Step 1- Person-level variables</i>				
Experimental condition	.06	.31	0.19	.42
Trait self-criticism	.22	.04	5.50	<.001
Mean relationship goal progress	-.32	.26	-1.23	.11
<i>Step 2 - Week-level variables</i>				
Fluctuations in goal progress	-.41	.14	-2.93	<.01
<i>Step 3- Interactions</i>				
Condition x self-criticism	-.04	.04	-1.00	.16
Condition x fluctuations in goal progress	-.19	.15	-1.27	.10
Self-criticism x fluctuations in goal progress	.02	.02	1.00	.16
Condition x trait self-criticism x fluctuations in goal progress	.03	.02	1.50	.07
Random effect $u_{0j}$ (SE)	5.94 (1.19)			
Random effect $e_{0ij}$ (SE)	6.71 (0.61)			

*Note.* Experimental condition was coded as -1 = self-esteem, 1 = self-compassion.

In summary, for both goal types, people reported lower levels of negative affect on weeks when they reported more goal progress, as expected. People higher in trait self-criticism also reported higher mean levels of negative affect across weeks. However, the within-person relationship between goal progress and negative affect did not differ by experimental condition, trait self-criticism, or the interaction

between these two variables. When aggregated to the person-level, mean goal progress (for either goal type) was not significantly associated with mean levels of negative affect across the weeks.

### Test of hypothesis 3

**Compared to the self-esteem induction, the self-compassion induction will help maintain a higher level of goal commitment and autonomous motivation and a lower level of controlled motivation.** Mixed ANOVAs were conducted with a between-subject factor of condition and a within-subject factor of time (T1, T2) on goal commitment, autonomous motivation and controlled motivation for each goal type (see Table 1 for descriptive statistics). There was a main effect for time for academic external motivation only,  $F(1, 82) = 0.19, p < .001, \eta_p^2 = .18$ , with an increase in both groups over time. There were no significant interactions between time and condition for academic autonomous motivation,  $F(1, 82) = 0.07, p = .80, \eta_p^2 < .01$ , introjected motivation,  $F(1, 82) = 1.10, p = .32, \eta_p^2 = .01$  or external motivation,  $F(1, 82) = 0.19, p = .66, \eta_p^2 < .01$ . There were also no significant interactions between time and condition for relationship autonomous motivation,  $F(1, 82) = 0.07, p = .80, \eta_p^2 < .01$ , introjected motivation,  $F(1, 82) = 0.23, p = .63, \eta_p^2 < .01$  or external motivation,  $F(1, 82) = 0.15, p = .70, \eta_p^2 < .01$ . There were no significant interactions between time and condition for academic goal commitment,  $F(1, 82) = 1.84, p = .18, \eta_p^2 = .02$ , or relationship goal commitment,  $F(1, 82) = .34, p = .56, \eta_p^2 < .01$ . Therefore, hypothesis 3 was not supported for either goal.

The full results for the mixed ANOVAs for relationship and academic autonomous motivation and goal commitment are in Appendix B5.

## Acceptability of the Process

There was no significant difference between the two conditions in their ratings of how helpful they had found participating in the study (self-compassion condition:  $M = 6.61$ ,  $SD = 1.84$ ; self-esteem condition:  $M = 6.33$ ,  $SD = 1.65$ ;  $t(81) = -0.72$ ,  $p = .47$ ). However, participants in the self-compassion condition did report finding the study more pleasant (self-compassion condition:  $M = 7.34$ ,  $SD = 1.87$ ; self-esteem condition:  $M = 6.52$ ,  $SD = 1.55$ ;  $t(81) = 2.17$ ,  $p = .03$ , Cohen's  $d = 0.48$ ).

There was a negative correlation between trait self-criticism and how helpful participants found the study in the self-compassion condition ( $r = -.44$ ,  $p < .01$ ) but not in the self-esteem condition ( $r = -.14$ ,  $p = .31$ ). Similarly, there was a positive correlation between SCS scores and how helpful participants found the study in the self-compassion condition ( $r = .54$ ,  $p < .001$ ) but not in the self-esteem condition ( $r = .23$ ,  $p = .15$ ).

Overall, those in the self-compassion condition found the study more pleasant than those in the self-esteem condition. In the self-compassion condition only, those who were higher in self-compassion and lower in self-criticism found the study more helpful. A summary of participants' qualitative reflections on the study process are provided in Appendix B6.

## Discussion

The purpose of this study was to test the impact of a self-compassion exercise versus a control self-esteem exercise on the experience of pursuing personal goals in a context where undergraduates are monitoring their progress and setting SMART targets. It was hypothesised that self-compassion exercises would be of greater benefit than self-esteem exercises in helping people to avoid the

potential downsides of goal monitoring, such as an increase in negative affect when failing to make progress and a decrease in autonomous motivation.

Contrary to the hypothesis, the self-compassion induction did not result in greater goal achievement (measured using GAS) than the self-esteem induction. Two previous studies have shown a link between self-compassion induction and the achievement of a personal goal, either weight loss or smoking reduction (Kelly et al., 2010; Mantzios & Wilson, 2015). In these studies, in the short-term, self-compassion was beneficial in comparison to either a waitlist control or a self-monitoring control condition, but over a period of five weeks, the self-compassion-based intervention was not better than the other active interventions, which were either mindfulness, self-energizing or self-controlling interventions (Kelly et al., 2010; Mantzios & Wilson, 2015). Therefore, this study is consistent with those findings. One possible explanation for this is that self-compassion is not better than self-esteem when pursuing personal goals, but that both approaches are helpful. This explanation could not be tested as there was no waitlist control condition in this study, however inspection of qualitative data revealed that participants in both conditions reported finding the reflective exercise helpful.

One difficulty with interpreting the results is that both conditions showed an immediate increase in state self-compassion and self-esteem on the manipulation check, and on trait self-compassion over the course of the entire study, but there was no significant difference between the conditions. It may be that the manipulation check was not a sensitive and reliable measure of changes in state self-compassion and self-esteem as it has not been validated. However, these self-compassion items did differentiate a self-esteem group from a self-compassion group in the study by Breines and Chen (2012). It may be that self-esteem and self-compassion were

induced differently in that study from this study, which calls in to question what elements effectively distinguish the two constructs. The overlap between self-compassion and self-esteem may depend on the type of self-esteem. For some people, high self-esteem is contingent on success and is therefore unstable and associated with narcissism and ego-defensive behaviours. For others, it can be stable and healthy (Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003). Differences between self-compassion and self-esteem inductions may therefore be greatest when unstable or contingent self-esteem are induced. In a study by Neff and Vonk (2009) using self-report measures, social comparison was positively associated with unstable and contingent self-esteem and negatively associated with self-compassion. One way the inductions in this study differed from the study by Breines and Chen (2012) was in the focus on a comparison with others. The study by Breines and Chen included the statement “you must be intelligent if you got in to Berkeley” in the self-esteem induction. which refers to an achievement based on competition with others. An equivalent statement was not included in the self-esteem induction in this study. Without the social comparison, it may be that the present study’s self-esteem exercises induced a healthy self-esteem that is positively associated with self-compassion. It may be that an unstable and contingent self-esteem induction would result in lower self-compassion, as it would open people up to self-criticism when they judge themselves to have done worse than others. Striving to maintain contingent self-esteem is associated with less learning and fewer autonomous goals (Crocker & Park, 2004). This type of self-esteem is also associated with more rumination and therefore may result in greater negative affect in response to poor goal progress (Neff & Vonk, 2009). To test this further experimental studies are needed inducing different types of self-esteem and

comparing it to self-compassion and a neutral control to see what, if any, effect these potential inductions have on state self-compassion and goal pursuit.

Although the expected negative within-person association between subjective goal progress and negative affect was observed, in keeping with previous research (e.g. Moberly & Watkins, 2010), the self-compassion induction did not buffer this association in comparison to the self-esteem induction. This is not in keeping with the study by Hope et al. (2014), in which trait self-compassion did buffer the daily relationship between goal progress and negative affect. However, the Hope et al. study was an observational study and therefore trait self-compassion may not have been causal in buffering the relationship. The present study failed to find a significant advantage for the self-compassion condition, which would have supported a causal relationship. However, this may be due to the similarity of the conditions in this study and a lack of a neutral control.

The relationship between condition and goal achievement was not moderated by trait self-criticism, goal difficulty or goal commitment. The within-person relationship between negative affect and goal progress was also not moderated by trait self-criticism or the interaction between self-criticism and condition. The measures of self-criticism and goal characteristics are likely to have had the stability required to test moderation. However, the fact there was only one goal for each goal type and participants were asked to choose personally important goals may mean that the goals lacked the variability required to find a moderating effect of goal difficulty and commitment. The hypothesis was that the self-compassion exercises would be most useful when commitment was low and the goal was hard as it would enable persistence, however both exercises were equally effective for these goals.

However, it is possible that both exercises were more helpful for these goals than easier goals in comparison to a neutral control but this was not tested.

Subjectively, trait self-criticism did appear to predict how helpful people found both conditions and particularly the self-compassion exercise, as those who were low in self-criticism reported finding the study more helpful, particularly in the self-compassion condition. This fits with previous findings that those who are high in self-criticism fear self-compassion (Gilbert et al., 2011) and have less positive affiliative affect following loving-kindness mediation (Kirschner, 2017). However, other studies have found the opposite effect with those higher in self-criticism showing greater benefit from self-compassion induction in comparison to neutral controls in relation to both smoking reduction (Kelly et al., 2010) and state self-compassion change (Kirschner, 2017). The different findings may be due to the outcomes being measured, e.g., positive affiliative affect versus self-compassion change, with self-criticism moderating different outcomes in different ways. It may also be due to the type of self-compassion exercises, in which case it is important to consider how to make self-compassion exercises accessible and non-threatening to those high in self-criticism (Warren et al., 2016).

There was very small change over time, and this did not differ between the conditions, in goal commitment and autonomous and introjected or external motivation. It may be because these facets of goals are quite stable and difficult to change (Emmons, 1986). It was hypothesised that the experience of monitoring goals may reduce intrinsic motivation as previous research has suggested that it might (Rawsthorne & Elliot, 1999). In keeping with this there was a small but significant increase over time in academic external motivation. Both reflective

exercises may have buffered changes on autonomous and controlled motivation but to test this a control group would be needed.

Importantly, those who were in the self-compassion condition found the study more pleasant, suggesting that even though there was no difference between the conditions in outcomes or in measured weekly negative affect, people may prefer to complete a self-compassion exercise to a self-esteem exercise. Qualitative feedback suggested that the reason for this may be that self-compassion induction encouraged participants to be reassuring and did not induce feelings of guilt in response to set-backs, whereas the self-esteem exercise may be difficult to complete when they felt there were no positives.

### **Limitations and Future Directions**

The interpretation of this study was limited by the fact that there was no difference between the conditions in change on state self-compassion and the effect of both manipulations on self-compassion was small. As discussed above this may be due to the manipulation measure used. However, if accurate then the effects were small and the similarity of the inductions will have reduced the effect sizes of any between group comparisons. The study was powered for a medium effect size and would have lacked power to detect these small effect sizes. Future studies should explore ways to make self-compassion inductions in this context more powerful.

A longer-term follow-up may be necessary for finding differences in goal attainment consequent on inductions of self-compassion versus related concepts, as the benefit of self-compassion may only be seen when people are faced with set-backs in goal pursuit. This may not happen for people in the short-term but is more

likely to occur over the longer term. In support of this, Mantzios and colleagues (2015) found that it was only at the six-month follow-up that there was a differential impact of self-compassion and mindfulness exercises.

There are aspects of goal pursuit, for example rumination about goals, that were not measured in this study and that current research suggests may benefit from self-compassion over self-esteem (Neff & Vonk, 2009).

### **Conclusion**

Overall, this study demonstrated that self-compassion exercises were not more beneficial than self-esteem exercises in helping people to achieve their academic and relationship goals or in reducing negative affect in response to poor progress. The effects of the inductions were not moderated by levels of trait self-criticism or goal commitment and difficulty. Because of the overlap between the self-compassion and self-esteem exercises in their impact on state self-compassion, there may have been insufficient power to detect any differences. People reported finding self-compassionate reflection more pleasant than self-esteem reflection, suggesting that it may be a preferred intervention. However, further studies are needed to explore whether there are circumstances in which self-compassion induction is a useful intervention in the pursuit of goals.

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## Appendices

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## Appendix A – Additional Method Information

### 1. Power Analysis

The sample size was estimated based on previous research comparing the effect of self-compassion induction with self-esteem induction on self-improvement motivation ( $d = 0.6$ ; Breines and Chen, 2012). Based on this our sample size was estimated assuming a medium effect size. The primary hypothesis was tested using an independent t-test. Eighty participants are needed for an independent t-test to find a significant effect at a power of 0.80 with the parameters set at  $d = 0.6$  and  $\alpha = 0.05$ . The additional hypotheses would achieve the same power with fewer numbers if the parameters are set for a medium effect size and  $\alpha = 0.05$ .

Additional hypotheses were also powered to detect a medium effect size according to Cohen. Hypotheses 1a and 1b were tested using multiple regression and to find a significant effect at a power of 0.8 if the effect size was  $f^2=0.15$  a total sample of 55 would be required.

For hypothesis 2 and 2a the power is the same as for the primary hypothesis.

For hypothesis 3 an ANOVA was used and to find a significant effect at a power of 0.80 if the effect size was  $f=0.2$  a total sample of 52 would be required if the correlation across time points for the repeated measures was 0.5 (a conservative estimate).

## 2. Details of Pilot

The study was piloted with three students and qualitative feedback used to make changes to the goal selection instructions and the instructions on the reflection exercises. The goal instructions were changed to make it clearer that the goal should be one that was not an all or nothing goal but one that could be gradually worked towards. Both the self-compassion and self-esteem reflection exercises were changed to reflect that there may have been good or poor progress, as the original self-compassion reflection based on the study by Breines and Chen (2012) included a sentence saying that it was normal to experience difficulties. In order to make the instructions more explicit and to match them for length and detail, additional instructions were added to both the self-compassion and self-esteem induction suggesting three elements to focus on.

## 3. Goal Selection Instructions

In this study we are interested in your pursuit of personal goals that are important to you. Over the next four weeks you will be asked to monitor your progress each week on two important goals. The first step is to think about the things that you are trying to do.

At this point we want you to indicate what you are striving towards, such as '*learn about quantum mechanics*'. The goals should not be all or nothing, so that you should not be able to say simply 'I did/didn't do it', for example '*Read about quantum mechanics for 10 minutes a day*' or '*get As on all my coursework*' but should be something that you can gradually work towards and that perhaps does not have a natural 'end point'.

It is also important that each goal is a relatively long-term project requiring several weeks of continual, active engagement and cannot be completed within four weeks. Also chose something that involves *approaching a desirable outcome* rather than avoiding an undesirable outcome (e.g. you should state 'Try to get on well with my family' and *not* 'Avoid disagreements with my family')

I would now like you to identify two things that you are striving towards over the next four weeks. Please choose one '*academic*' and one '*relationship*' (about *friends, colleagues, family, romantic partners, and strangers*) goal and write them in the boxes below.

Here are some examples of relationship goals:

Try and ensure my relationship with my boyfriend remains strong

Develop supportive friendships

Improve my confidence around others

Try to get on well with my family

Here are some examples of academic goals:

Try to understand statistics

Expand my knowledge of medieval literature

Make progress on my thesis

It is important that you choose goals that are important to you and you really want to make progress on at this time. Take your time with this task; spend some time thinking about your goals before you begin. Check that your goals

\* are *strivings* **not** all or nothing outcomes

\*are *important* and *personally meaningful* to you.

\* are *challenging* enough that they require *some effort* from you *at least every week*

\* involve *approaching a desirable outcome* rather than avoiding an undesirable outcome

#### 4. Goal Attainment Scaling

Research has shown that setting goals is more successful when they are realistic and measurable. We would like you to create a scale that will help you to rate your progress on your goal at the end of 4 weeks.

In order to do this you need to think of a way of measuring your progress on your goal. The ideal measure is not all or nothing but has many different levels so that you can know if you have done slightly better or a lot better than you expected. For example it may be the number of assignments completed early or the number of new friends you have made.

Some examples are

<i>Possible Outcomes</i>	<i>Goal – Get on better with my boyfriend</i>	<i>Goal – Learn about Vector Calculus</i>	<i>Goal – Make progress on my thesis</i>
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Much less than expected	Split up	Know nothing	No progress
Somewhat less than expected	arguing several times a week	Have read one chapter	written the introduction
Most likely	not arguing	Have read several chapters	Started collecting data
Somewhat more than expected	having fun together several times a week	Have read all the set book	Finished collecting data
Much more than expected	having fun together every day	Have read all the recommended reading and done some extra practice	Completed it

You may find the following questions helpful

- 1) What is the most likely outcome after 4 weeks - about a 40% chance?
- 2) What is a slightly less than expected outcome – about a 20% chance?
- 3) What is a slightly more than expected outcome – about a 20% chance?
- 4) What is a lot less than expected outcome – about a 10% chance?
- 5) What is a lot more than expected outcome – about a 10% chance?

## 5. Induction Reflection Exercises

### i. Self-Compassion Induction

It's important for the research and should be useful to you to reflect on what went right and wrong in pursuing your goals this week.

In the space below please write reflecting on your progress towards your goals Academicgoal.shown and Relationshipgoal.shown this week. Briefly describe what happened from a compassionate perspective, showing kindness and understanding for any difficulties you have faced and recognising that you will have shown both strengths and weaknesses.

In completing this exercise try to include the following three elements of self-compassion:

- 1) Acknowledge your feelings about your progress including any negative emotions. As you write, try to be accepting and non-judgmental of your experience, not belittling it nor making it overly dramatic.
- 2) Remind yourself that success, failure and imperfection are all part of the shared human experience
- 3) Use a kind and reassuring tone, as if you were supporting a friend.

Please write at least 100 words

## ii. Self-esteem Induction

It's important for the research and should be useful to you to reflect on what went right and wrong in pursuing your goals this week.

In the space below please write reflecting on your progress towards your goals Academicgoal.shown and Relationshipgoal.shown this week. Briefly describe what happened from a positive point of view, try to describe the positive qualities you have that helped things to go well and kept you going when things went wrong.

In completing this exercise try to include the following three ways of focusing on the positives:

- 1) Celebrate your successes without belittling them. No matter how small they may seem to you, take time to praise yourself and reflect on what you did well.
- 2) Write about what strengths and positive personal attributes you have shown this week in pursuing your goals.
- 3) Remember any compliments you have received this week and write them down.

Please write at least 100 words

## 6. Session Structures

The first session will be face to face and have the following structure

First Session
Information and consent
Measures of trait self-compassion, self-criticism and PHQ-9
Goal identification and the creation of goal attainment
Ratings of goal motivation (autonomous/controlled), goal difficulty and goal commitment for each goal
Self-compassion/self-esteem induction reflection
Manipulation check
Action plan for making progress over the following week
Setting tasks/targets to achieve by the following week

Sessions two to four
Assessment of goal progress for each goal - whether they have met or exceeded the tasks/targets set for themselves the previous week and measure of subjective goal progress for each goal
Assessment of positive and negative affect
Self-compassion/self-esteem induction reflection
Action plan for making progress over the following week
Setting tasks/targets to achieve by the following week

Final Session
Assessment of goal progress for each goal - whether they have met or exceeded the tasks/targets set for themselves the previous week and measure of subjective goal progress
Assessment of positive and negative affect
Qualitative feedback on experience of the study
Measures of self-compassion, goal motivation and goal commitment.

## Appendix B– Extended Data Analysis

### 1. Data cleaning and missing data

Data were cleaned prior to analysis, including checking for missing data and outliers within conditions. There were no extreme outliers identified on box-plots. The sample size was sufficient such that the central limit theorem applied and therefore distributions were not inspected for normality. Additional checks were made for multivariate outliers, homogeneity of variance and linearity where appropriate.

Table A1 shows the number of weekly update sessions completed by condition for the whole sample.

Table A1

*Participants completing x number of weekly update sessions by condition*

Condition	Sessions Completed			Total
	≤2	3	4	
Self-compassion	5	4	38	47
Self-esteem	5	3	39	47
Total	10	7	77	94

Table 2 shows the number of participants completing each of the weekly sessions by condition for the PP sample.

Table 2

*Number of participants completing each of the weekly sessions by condition*

		Week Number			
		1	2	3	Final
condition	SC	41	39	42	42
	SE	42	40	41	42
Total		83	79	83	84

A comparison of those excluded for non-completion with those included showed that those excluded were not statistically different from those included in the study on the T1 total SCS ( $U = 440.5$ ,  $Z = 0.25$ ,  $p = .80$ ), PHQ-9 ( $U = 437.5$ ,  $Z = 0.21$ ,  $p = .83$ ), and FSCRS\_IS ( $U = 449.5$ ,  $Z = 0.37$ ,  $p = .29$ ).

Individual missing items within a scale were replaced with the mean score for items in that subscale rounded to the nearest valid score for that measure.

At baseline the percentage of missing items was <0.1% and at T2 was 2.5%. The amount of missing data was evenly distributed across the different scales. One person was missing data on all goal motivation measures; otherwise data were complete at baseline. Only 2.1% of the weekly data were missing so no tests of randomness were carried out.

## **2. Descriptive analysis**

Looking at the goal characteristics, paired sample  $t$ -tests show that relationship goals were reported to be slightly higher on autonomous motivation and

lower on introjected motivation than academic goals at both T1 and T2, but commitment and difficulty were not statistically different between goal types. T1; autonomous motivation ( $t = -8.47$ ,  $df = 83$ ,  $p < .001$ ), introjected motivation ( $t = -5.14$ ,  $df = 83$ ,  $p < .001$ ) and at T2; autonomous motivation ( $t = -7.30$ ,  $df = 83$ ,  $p < .001$ ), introjected motivation ( $t = -6.03$ ,  $df = 83$ ,  $p < .001$ ). Goal attainment was higher for the relationship goals,  $t(83) = 4.20$ ,  $p < .001$ .

There was a significant moderate positive correlation between self-compassion at T1 and academic attainment for the self-compassion condition but not for the self-esteem condition and the difference in the correlations between the two conditions is significant ( $Z = 1.62$ ,  $p = .02$ ). A multiple regression with academic attainment as the dependent variable and condition and self-compassion and the interaction between condition and self-compassion as the predictors did not show a significant effect for the interaction, although there was a significant main effect for self-compassion (see below for full regression results).

Table 3 shows the means and standard deviations for the weekly variables for each condition.

Table 3

*Means and Standard Deviations (in parentheses) for weekly variables in each condition.*

	Self-Compassion condition				Self-Esteem condition			
	W1	W2	W3	W4	W1	W2	W3	W4
<b>NA</b>	6.80 (3.69)	7.13 (3.99)	6.14 (4.29)	6.55 (3.92)	6.19 (4.18)	5.70 (3.78)	5.82 (3.97)	6.48 (4.10)

<b>Reflection – word count</b>	181.2 (60.2)	142.9 (40.1)	136.5 (37.5)	128.9 (39.6)	160.1 (69.5)	140.1 (57.7)	127.7 (48.8)	134.1 (78.4)
<b>Academic Progress</b>	4.00 (1.41)	4.80 (1.45)	4.48 (1.67)	4.93 (1.42)	4.26 (1.40)	4.07 (1.72)	4.10 (1.70)	4.54 (1.65)
<b>Academic Action plan – word count</b>	49.4 (33.8)	30.2 (20.6)	30.7 (24.5)	22.2 (15.6)	53.5 (30.4)	38.8 (27.4)	29.5 (28.3)	29.3 (25.8)
<b>Relationship Progress</b>	5.15 (1.37)	4.83 (1.48)	4.79 (1.54)	5.64 (1.28)	4.71 (1.49)	4.13 (1.71)	4.56 (1.85)	4.90 (1.48)
<b>Relationship Action plan – word count</b>	44.9 (32.3)	24.26 (20.0)	29.3 (20.8)	21.7 (17.7)	47.8 (29.9)	31.0 (28.5)	27.3 (24.8)	24.2 (25.7)

### 3.ITT analysis for the Primary Hypotheses.

There was not a significant difference between the conditions in either their relationship or academic goal attainment (Academic goal: self-compassion condition  $M = 3.16$ ,  $SD = 0.77$ , self-esteem condition  $M = 3.09$ ,  $SD = 0.76$ ,  $t(89) = 0.43$ ,  $p = .89$ ; relationship goal: self-compassion condition  $M = 3.76$ ,  $SD = .98$ , self-esteem condition  $M = 3.57$ ,  $SD = 1.07$ ,  $t(89) = .88$ ,  $p = .38$ ).

#### 4. Multiple Regression Coefficients

- i. Results from a multiple-regression examining the relationship between trait self-compassion, condition and academic achievement

**Table 4**

***Academic Goal Achievement: Predictors = Condition/Trait self-compassion/Condition x Trait Self-compassion***

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.306	.255		12.960	.000
Condition	-.103	.161	-.069	-.639	.525
Trait Self-Compassion	.879	.414	.754	2.123	.037
Trait Self-Compassion x Condition	-.491	.255	-.685	-1.929	.057

**ii. Results from a multiple-regression looking at the  
relationship between condition, academic goal  
commitment and difficulty and academic  
achievement**

Table 5

*Academic Goal: Dependent variable = Academic Goal Achievement and Predictors  
= Condition/Academic Goal commitment/ Academic Goal Difficulty.*

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.159	.083		38.153	.000
Condition	.058	.083	.079	.705	.483
Goal commitment	.183	.092	.232	1.992	.050
Goal Difficulty	-.024	.055	-.051	-.444	.658
Goal commitment x Condition	-.007	.092	-.009	-.076	.940
Goal commitment x Goal Difficulty	.009	.060	.017	.146	.885
Goal Difficulty x Condition	.004	.055	.009	.080	.936
Goal commitment x Goal Difficulty x Condition	-.012	.060	-.024	-.206	.837

Table 6

*Relationship Goal: Dependent variable = Relationship Goal Achievement and  
Predictors = Condition/Relationship Goal commitment/ Relationship Goal Difficulty.*

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.689	.111		33.252	.000
Condition	.054	.111	.055	.488	.627
Goal commitment	.184	.107	.190	1.725	.089
Goal Difficulty	-.120	.082	-.184	-1.471	.145
Goal commitment x Condition	-.046	.107	-.047	-.432	.667
Goal commitment x Goal Difficulty	.121	.071	.198	1.706	.092
Goal Difficulty x Condition	-.088	.082	-.130	-1.083	.282
Goal commitment x Goal Difficulty x Condition	-.024	.071	-.039	-.334	.739

## 5. Mixed ANOVA results for the test of effect of condition on the maintenance of commitment and autonomous motivation

### i. Autonomous motivation

Table 7

*The results of a mixed ANOVA - with academic autonomous motivation at T1 and T2 as a within subject factor and experimental condition as a between subject factor.*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
time	.095	1	.095	.148	.701
time * condition	.042	1	.042	.066	.798
Error(time)	52.640	82	.642		

Time = T1 academic autonomous motivation vs T2 academic autonomous motivation

Condition – self-compassion was coded as 1 and self-esteem as 2

Table 8

*Table showing the results of a mixed ANOVA- with relationship autonomous motivation at T1 and T2 as a within subject factor and experimental condition as a between subject factor.*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
time	.762	1	.762	.640	.426
time * Condition	.085	1	.085	.071	.790
Error(time)	97.598	82	1.190		

Time = T1 relationship autonomous motivation vs T2 relationship autonomous motivation

Condition – self-compassion was coded as 1 and self-esteem as 2

## ii. Commitment

Table 9

*Table showing the results of a mixed ANOVA- with academic goal commitment at T1 and T2 as a within subject factor and experimental condition as a between subject factor.*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
time	21.086	1	21.086	17.689	.000
time * Condition	2.194	1	2.194	1.841	.179
Error(time)	96.553	81	1.192		

Time = T1 academic goal commitment vs T2 academic goal commitment

Condition – self-compassion was coded as 1 and self-esteem as 2

Table 10

*Table showing the results of a mixed ANOVA- with relationship goal commitment at T1 and T2 as a within subject factor and experimental condition as a between subject factor.*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
time	4.298	1	4.298	2.515	.117
time * Condition	.583	1	.583	.341	.561
Error(time)	140.119	82	1.709		

Time = T1 relationship goal commitment vs T2 relationship goal commitment

Condition – self-compassion was coded as 1 and self-esteem as 2

## **6. Participants' reflections on the study process.**

The comments on the experience of doing the induction reflection were nearly all positive from both conditions. In the self-compassion condition, comments included:

“I liked the honesty we had to express when reflecting on our experiences, and the

reminder to be reassuring” and “there was no guilt felt whenever we had to comment on how well we did on our goals, which made starting again and improving further feel possible and worth trying”. In the self-esteem condition, comments included: “when I wrote in detail each week about compliments I had received, it made me feel happy” and “I believe being more positive towards myself actually helped me achieve my goal more effectively”.

Only one participant from each condition commented on finding the reflections unpleasant. In the self-compassion condition, one participant stated: “I struggle with reflections, so I found it slightly unpleasant having to reflect on my progress”. In the self-esteem condition, one participant stated: ‘It was pleasant that the study motivates to think more positively about the self, but because it was so obvious I ended up sort of feeling like I was 'lying' to myself or actually making myself feel worse because it was usually hard to be positive when most of the time I didn't meet the goals”.

Most people reported finding it helpful to focus on their goals, set targets and create action plans. However, many comments supported the theory that drove the research, that monitoring goals can be helpful but also lead to less intrinsic motivation and be aversive when progress is not made. For example, “sometimes the concept of a ‘task’ seemed to outweigh the meaning of my inner feelings and the enjoyment from the process of achieving my goals.”, “it made me feel bad about myself and even less motivated to work when I'd had a bad week”, “I felt a little ashamed”.

## Appendix C: Participant Pack

### 1. Information Sheet



#### COLLEGE OF LIFE AND ENVIRONMENTAL SCIENCES

#### Study Information Sheet

Achieving Personal Goals

#### Researchers:

Elizabeth Parry

Trainee Clinical Psychologist

Supervised by Dr Nick Moberly:

Senior Lecturer

#### Correspondence address

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[Tel: xxxxxxxxxxxx](tel:xxxxxxxxxx)

#### WHAT IS THE STUDY ABOUT?

This research is about pursuing goals in everyday life. Research has shown that setting yourself goals and measuring your progress on them can improve how well you do. However, some people may find tracking their goals difficult or unpleasant. In this study we are looking for ways to improve the experience of pursuing goals by adding additional reflective exercises.

#### WHO IS CONDUCTING THIS RESEARCH?

The research is being conducted by Elizabeth Parry, a trainee clinical psychologist at the University of Exeter.. This research has been approved by the Psychology Research Ethics Committee.

#### WHAT DOES TAKING PART INVOLVE?

There are two parts: (i) an introductory meeting, (ii) a four-week period of weekly online exercises and questionnaires.

The first meeting takes about 45 minutes. You will be asked to provide some straightforward personal information (e.g., date of birth) and complete some personality and

mood questionnaires. Some questions ask for quite personal details, but if there are any that you don't want to answer, just leave them blank and move on to the next question. You will also be asked to identify the goals that you will pursue over the next few weeks. You will be given clear instructions for doing this and the researcher will help with any difficulties you may have. Today you will also start the weekly reflective exercises. Again if you have any difficulty with these exercises you can ask the researcher to clarify what to do.

The weekly online exercises will take about 10 minutes. You will be sent a link via email to the weekly online exercises. You will then be emailed feedback from these sessions that you then have the option to use during the week if you find it helps you in your goal pursuit. After the final session there will be some further feedback and information on the purpose of the study and the opportunity to email the researcher with any additional questions about the research.

### **WHAT WILL HAPPEN TO THE INFORMATION YOU PROVIDE?**

Your answers to the questionnaires and data recorded online will be identifiable only through an ID number (not your name). Only I will see this data and I will not give this information to anybody else. Anonymised research data will later be archived in order to make them available to other researchers in line with current data sharing practices. Your name and contact details will be stored separately from any personal information that you provide. All information collected during the study will be kept on a secure server and will remain confidential. The only exception is if responses to the questionnaires suggest that you are currently very suicidal. In this exceptional case, I would seek to enable you to access help, with the assistance of others. Any contact details used by the researcher, email and telephone number, will be deleted within one month after the completion of the study and will not be used for any other purpose, unless you opt to have your details stored so that you can be contacted about other research.

### **WHAT WILL HAPPEN TO THE RESULTS?**

When complete, I will communicate the results of the study to the wider community of researchers. This is typically achieved through writing up the results in an academic journal, presenting the results at conferences and other outlets. This will NOT involve identification of individuals who took part in the research.

### **WHAT DO YOU GET OUT OF IT? ARE THERE ANY DISADVANTAGES?**

You have the chance to think about the goals you want to pursue and ways of achieving what you want in relation to those goals. People often find the experience of setting and tracking goals helpful. At the end of the study, you will be sent some information about patterns that are observed in your personal data. You will also receive either 5 research participation credits or you will be entered in to a draw to win £50 at the end of the study.

It is also possible that there may be times when you feel frustrated with your progress. You may then experience mild discomfort when responding to questions about your goals. The exercises are designed to help improve your mood when you are finding progress difficult. However, if you don't want to answer a question or do an exercise, you do not have to do so. If there are any personal issues raised by the study you can contact the researcher who can give you information on where to get help if appropriate.

## CONSENT

If you have any questions, please ask them now. If you agree to take part, please keep this Information Sheet for reference and sign the Consent Form. However, even if you sign this form, you may withdraw from the study at any time, for any reason, and you will still receive credit proportional to the amount of time that you were in the study.

**EXPERIMENTER CONTACT: If you have problems or questions during the study,  
please call me on xxxxxxxx or email [xxxxxxxxxxxx](mailto:xxxxxxxxxxxx)**

## 2. Consent Form

**Please tick the box if you agree with each statement**

1. After reading the Information Sheet for the above study I agree to take part. I have had the opportunity to ask questions.
  
2. By consenting to participate in this study, I agree to be sent emails and texts for the duration of the study

## 3. Debrief

The purpose of this study has been to look at whether self-compassion induction helps people to stay motivated in pursuing their personal goals when they are faced with set-backs and lack of progress. Participants in this study were randomized to either a self-compassion induction condition or a self-esteem induction condition. You were in the xxxxxx condition.

If you have any further questions about this study please do not hesitate to contact me on [ep335@exeter.ac.uk](mailto:ep335@exeter.ac.uk) or by phoning xxxxxxxx

You can also contact the chair of the Psychology Research Ethics Committee, Lisa Leaver, on [L.a.leaver@ex.ac.uk](mailto:L.a.leaver@ex.ac.uk) or 01392 724641, if you have any concerns about this research.

## Appendix D: Ethics Approval

Ethical Approval system

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Your application (2016/1140) entitled An investigation of the impact of self-compassion induction on personal goal pursuit and motivation has been accepted

**Appendix E: Dissemination Statement**

The results of this study will be disseminated to interested parties through journal publication and presentation.

**Journal Publication**

It is expected that the study will be submitted for publication to *Self and Identity*. See Appendix F for instructions for authors.

**Presentation**

The findings will be presented to an academic audience, for peer review, as part of the Doctorate in Clinical Psychology at the University of Exeter. They will also be presented to a group of psychologists working in an adult mental health NHS service in Devon.

## Appendix F: Instructions for Authors

### Instructions for Authors - Self and Identity

\*\*\*Note to Authors: please make sure your contact address information is clearly visible on the outside of all packages you are sending to Editors.\*\*\*

#### AIMS AND SCOPE

*Self and Identity* is the official journal of the International Society of Self and Identity. It is a multidisciplinary journal devoted to the study of social and psychological processes of the self, including both its agentic aspects (e.g., motivations, goal processes, and self regulation), as well as the perceived and construed aspects as reflected in its mental representations (e.g., social cognition, self concept, and self-construals). The Journal aims to bring together work on self and identity undertaken by researchers across different subdisciplines within psychology (e.g., social, personality, clinical, development, cognitive), as well as across other social and behavioral disciplines (e.g., sociology, family studies, anthropology, neuroscience). Special emphasis is placed on theories and research that are generative in opening new terrain for future investigation. A second continual motivating goal of the journal will be work that offers integration at the level of basic processes.

*Self and Identity* publishes empirical articles of all lengths, and occasional theoretical pieces. Manuscripts should be prepared according to APA style and submitted to Carolyn C. Morf (Editor) via the electronic submission procedures described below:

#### Manuscript Submission:

Manuscripts are invited for submission. Please note that authors are encouraged to submit papers electronically to expedite the peer review process. Please email your paper, saved in a standard document format type such as Word, Rich Text Format, or PDF, to [reviews@psyppress.co.uk](mailto:reviews@psyppress.co.uk). Alternatively, if you wish to submit a hard copy, please send one copy of the manuscript AND a disk version to: Journals Editorial Assistant, Psychology Press Ltd, 27 Church Road, Hove, East Sussex, BN3 2FA, UK. Tel: (0)1273 225007, Fax: (0)1273 206612.

Your covering email/letter must include full contact details (including email), the title of the journal to which you are submitting, and the title of your article.

All manuscripts should be submitted in American Psychological Association (APA) format following the latest edition of *Publication Manual of the APA* (currently 5th edition).

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- (1) the title of the paper, the name(s) and address(es) of the author(s);
- (2) a short title not exceeding 50 letters and spaces, which will be used for page headlines;
- (3) name and full contact address of the author to whom correspondence and proofs should be sent;
- (4) your telephone, fax and e-mail details, as this helps speed of processing considerably.

**Abstract.** An abstract of no more than 120 words should follow the title page on a separate sheet. In the abstract, avoid abbreviations, diagrams, and reference to the text.

**Headings.** Indicate headings and subheadings for different sections of the paper clearly. Do not number headings.

**Acknowledgements.** These should be as brief as possible and typed on a separate sheet at the beginning of the text.

**Permission to quote.** Any direct quotation, regardless of length, must be accompanied by a reference citation that includes a page number. Any quote over six manuscript lines should have formal written permission to quote from the copyright owner. It is the author's responsibility to determine whether permission is required from the copyright owner and, if so, to obtain it. (See the bottom of the page for a template of a letter seeking copyright permission.)

**Footnotes.** These should be avoided unless absolutely necessary. Essential footnotes should be indicated by superscript figures in the text and collected on a separate sheet at the end of the manuscript.

**Reference citations within the text.** Use authors' last names, with the year of publication in parentheses after the last author's name, e.g., "Jones and Smith (1987)"; alternatively, "(Brown, 1982; Jones & Smith, 1987; White, Johnson, & Thomas, 1990)". On first citation of references with three to six authors, give all names in full, thereafter use first author "et al.". If more than one article by the same author(s) in the same year is cited, the letters a, b, c etc. should follow the year.

**Reference list.** A full list of references quoted in the text should be given at the end of the paper in alphabetical order of authors' surnames (or chronologically for a group of references by the same authors), commencing as a new sheet, typed double spaced. Titles of journals and books should be given in full, e.g.:

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Baddeley, A. D. (1999). *Essentials of human memory*. Hove, UK: Psychology Press.

### Chapter in edited book:

Plomin, R., & Dale, P. S. (2000). Genetics and early language development: A UK study of twins. In D. V. M. Bishop & L. B. Leonard (Eds.), *Speech and language impairments in children: Causes, characteristics, intervention and outcome* (pp. 36-51). Hove, UK: Psychology Press.

**Journal article:**

Schwartz, M. F., & Hodgson, C. (2002). A new multiword naming deficit: Evidence and interpretation. *Cognitive Neuropsychology*, 19, 263-288.

**Tables.** These should be kept to the minimum. Each table should be typed double spaced on a separate sheet, giving the heading, e.g., "Table 2", in Arabic numerals, followed by the legend, followed by the table. Make sure that appropriate units are given. Instructions for placing the table should be given in parentheses in the text, e.g., "(Table 2 about here)".

**Figures.** Figures should only be used when essential. The same data should not be presented both as a figure and in a table. Where possible, related diagrams should be grouped together to form a single figure. Figures should be drawn to professional standards and it is recommended that the linear dimensions of figures be approximately twice those intended for the final printed version. Each of these should be on a separate page, not integrated with the text. Figures will be reproduced directly from originals supplied by the author(s). These must be of good quality, clearly and completely lettered, with the top edge indicated. Make sure that axes of graphs are properly labelled, and that appropriate units are given. Photocopies will reproduce poorly, as will pale or broken originals. Dense tones should be avoided, and never combined with lettering. Half tone figures should be clear, highly-contrasted black and white glossy prints.

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**Statistics.** Results of statistical tests should be given in the following form:

"... results showed an effect of group,  $F(2, 21) = 13.74, MSE = 451.98, p < .001$ , but there was no effect of repeated trials,  $F(5, 105) = 1.44, MSE = 17.70$ , and no interaction,  $F(10, 105) = 1.34, MSE = 17.70$ ."

Other tests should be reported in a similar manner to the above example of an *F*-ratio. For a fuller explanation of statistical presentation, see pages 136-147 of the *APA Publication Manual* (5th ed.). For guidelines on presenting statistical significance, see pages 24-25.

**Abbreviations.** Abbreviations that are specific to a particular manuscript or to a very specific area of research should be avoided, and authors will be asked to spell out in full any such abbreviations throughout the text. Standard abbreviations such as RT for reaction time, SOA for stimulus onset asynchrony or other standard abbreviations that will be readily understood by readers of the journal are acceptable. Experimental conditions should be named in full, except in tables and figures.

**AFTER ACCEPTANCE OF PUBLICATIONS IN THE JOURNAL**

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