The mediating role of Social Support Seeking in the relationship between Trait Self-Control and Goal Progress

Master Thesis Social, Health and Organisational Psychology Utrecht University

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UU-SER approval number: 22-0216 Word count: 7511 Date: June 21, 2022

Manuscript may be made publicly accessible

Abstract

Exercising regularly, saving money, or eating healthier – in our daily lives, we frequently set long-term goals. To stay focused on long-term goals and to ultimately achieve them, selfcontrol is considered as a necessary capacity. While research within the topic of self-control strategies has mainly focused on *intrapersonal* strategies that people use to make progress towards achieving their goals, there has been little effort to integrate *interpersonal* strategies into the self-control literature. Therefore, the aim of the present study was to examine whether the relationship between trait self-control and goal progress is mediated by social support seeking. It was hypothesized that there is positive relationship between trait self-control and goal progress, which is mediated by social support seeking. An online questionnaire was used to conduct the research. Participants were recruited through social media and e-mail (N = 151). In line with the hypothesis, the results showed that trait self-control is positively related to goal progress, and this relationship is partially positively mediated by social support seeking. Two additional explorative analyses revealed that social support seeking for instrumental reasons partially mediated the relationship between trait self-control and goal progress, while this mediating effect was not found for social support seeking for emotional reasons. The current study sheds a different light on the understanding of how self-control operates and offers a foundation for developing methods for improving self-control. By continuing to investigate why people who have higher levels of self-control are more successful in attaining their goals, a more detailed understanding of the processes that are involved in self-control will be acquired.

Keywords: trait self-control, self-control strategies, social support seeking, goal progress

Introduction

Exercising regularly, saving money, or eating healthier - in our daily lives, we frequently set long-term goals. To stay focused on long-term goals and to ultimately achieve them, selfcontrol is considered as a necessary capacity. Accordingly, self-control is seen as one of the most important ingredients for a successful and healthy life (Hoffman et al., 2014; Tangney et al., 2004). Self-control is generally defined as the capacity to regulate dominant response tendencies in order to support the pursuit of long-term goals (Cheung et al., 2014; De Ridder & Gillebaart, 2017). It incorporates both the inhibition of undesirable behaviors as well as the initiation of goal-directed behaviors (De Ridder et al., 2012). The need for self-control particularly emerges when people are confronted with situations in which they have to choose between an immediately rewarding option versus engaging in less immediately rewarding behaviors that are in line with their long-term goals. People frequently encounter such selfcontrol dilemmas in everyday life, for instance when deciding between watching television and going to the gym, buying a new gadget or saving money, or eating a piece of cake or an apple (De Ridder et al., 2018; Schneider et al., 2019; Werner & Milvavskaya, 2019). When self-control dilemmas arise, self-control helps people to pursue and attain their long-term goals (Schneider et al., 2019). Although self-control is susceptible to situational influences, such as mood, motivation, and previous attempts at self-control, self-control is also regarded as a personality trait that is relatively stable across situations and over time (De Ridder et al., 2012; Gillebaart & De Ridder, 2015). Not surprisingly, self-control has become a well-known concept in various domains of research in psychology and other sciences (De Ridder et al., 2012). High trait self-control has been shown to be associated with a wide range of positive outcomes, such as better health, academic achievement, and better relationships and interpersonal skills (Tangney et al., 2004). In contrast, low trait self-control is linked to various negative outcomes, including psychopathology, substance abuse, and poor academic performance (De Ridder et al., 2012).

But why are those who have higher self-control more likely to attain their long-term goals? Previous research points out that interpersonal processes may be important in predicting self-control success (Fitzsimons, 2015; Lee & Ybarra, 2017). In particular, research has shown that social support plays a significant role in successful goal pursuit and thriving. Social support is associated with several facets of health and well-being (Hefner & Eisenberg, 2009; Tamers et al., 2011; Wang et al., 2003) as well as academic achievement (Cutrona et al., 1994; Ghaith, 2002). Hence, it can be presumed that social support seeking is a way to facilitate the progress on long-term goals, which may be what underlies the success of people

with high trait self-control. Therefore, this study aims to investigate whether the relationship between trait self-control and goal progress is mediated by social support seeking. Given that high trait self-control accounts for many beneficial effects in life (Tangney et al., 2004), knowing what underlies self-control success is of great importance. Moreover, to date, very little is known about the way people use their social environment to pursue their goals. Examining how interpersonal processes contribute to successful goal progress possibly sheds a different light on the understanding of how self-control operates and would offer a foundation for developing methods for improving self-control.

Self-control strategies

For a long time, inhibitory control was seen as the most important process underlying selfcontrol. People with higher trait self-control were considered as being better at actively inhibiting unwanted impulses through using their willpower, which is an effortful process (Baumeister et al., 2007; Gillebaart & De Ridder, 2015; Hennecke & Bürgler, 2020; Hagger et al., 2010; Muraven & Baumeister, 2000). However, a newer perspective suggests that there are more effortless pathways to self-control success as well (Fujita, 2011; Gillebaart & De Ridder, 2015; Werner & Milyavskaya, 2019). Recently, more attention has been drawn to the idea that people can utilize several strategies to promote their goal progress and that one key to successful self-control may depend on the employment of these strategies (Hennecke & Bürgler, 2020). Examples of such strategies are re-evaluating one's perceptions of temptations and situations (e.g., a dieter who thinks about a cookie as a threat to their figure), changing situations to advantage (e.g., a student who hides his phone in a drawer to avoid getting distracted while studying), and shifting attention away from temptations (e.g., a dieter who looks away from a tasty treat) (Duckworth et al., 2016; Duckworth et al., 2018; Hennecke & Bürgler, 2020; Milyavskaya et al., 2021). The use of strategies facilitates goal progress because it can prevent self-control dilemmas from occurring in the first place or reduce their intensity (De Ridder & Gillebaart, 2017; Hennecke & Bürgler, 2020). Hence, the use of strategies circumvents the need for effortful inhibition, which consequently leaves more room for initiatory goal pursuit (De Ridder et al., 2018). It appears that people with high trait selfcontrol use more strategies for dealing with self-control dilemmas, which may actually underlie their self-control success (Gillebaart & De Ridder, 2015).

Research within the topic of self-control strategies mainly focused on *intrapersonal* strategies that people use to regulate their behavior, and much emphasis has been placed on the individual and their motivation in isolation (Duckworth et al., 2016; Duckworth et al.,

2018; Hennecke & Bürgler, 2020; Milyavskaya et al., 2021; Werner & Milyavskaya, 2019). Remarkably, there has been little effort to integrate *interpersonal* self-control strategies into the self-control literature. Although striving towards goals can occur independently, it is also often closely tied to one's social environment (Fitzsimons & Finkel, 2010; Lee & Ybarra, 2017). In fact, other people in our lives are generally inseparably involved when we pursue our goals (Milyavskaya & Werner, 2018). Individuals regularly initiate and pursue goals in the presence of significant others, including romantic partners, family members, and colleagues (Finkel & Fitzsimons, 2011; Fitzsimons & Finkel, 2010). Therefore, it is plausible to assume that people would look to their social environments for opportunities to facilitate their goal progress. Hence, it is valuable to explore *interpersonal* self-control strategies that enable people to work toward their goals.

Over the past decades, a growing number of studies have highlighted the significance of investigating interpersonal influences on self-control and goal attainment. For example, Shah (2003) showed that subtle reminders of significant others who had high expectations for the participants' self-regulatory success led to a higher belief that they were likely to achieve their goals. As a result, participants persisted in goal pursuit behavior for a longer period of time and showed better performance. Another line of research revealed that people who selectively drew closer to goal-supportive others when responding to an activated goal were more effective in achieving their goals over time (Fitzsimons & Shah, 2008). Moreover, the study by Baumeister and colleagues (2005) showed that participants who were rejected or socially excluded performed worse on a variety of self-regulation tasks, which demonstrates that social exclusion impairs one's capacity for self-regulation. Moreover, effective (versus ineffective) self-controllers have greater preferences to spend time with, work together with, and be informed by people who are high in self-control (VanDellen et al., 2015). Thus, findings of earlier research hint at the possibility that interpersonal processes, like individual processes, may be as relevant in predicting self-control success (Fitzsimons, 2015). As such, interpersonal processes may be used as a way to employ self-control more effortlessly.

Social support

While interpersonal processes are regularly discussed with regard to self-control (Baumeister et al., 2005; Fitzsimons, 2015; Fitzsimons & Shah, 2008; VanDellen et al., 2015), it is still unclear whether people with varying degrees of self-control differ in the way they make use of the social resources around them. One of the most direct ways people can benefit from their social environment when pursuing goals is through social support. Social support can be

defined as the psychological and instrumental resources available to individuals through their social networks, which are generally used to meet social needs, enhance coping with stressful events, and achieve goals (Rodriguez & Cohen, 1998). Research in this area particularly concentrated on the role of social support on health behaviors and well-being. It has been shown that individuals with strong social support consume more fruits and vegetables, sleep more regular hours, exercise more, are more physically active in general, and are more likely to quit smoking (Allgöwer et al., 2001; Cohen & Lichtenstein, 1990; Tamers et al., 2011). Social support has also been shown to play a role in psychosocial adjustment, mental health, quality of life, and well-being in general (Hefner & Eisenberg, 2009; Wang et al., 2003). However, the beneficial effects of social support seem to expand to other domains as well. For example, individuals with a romantic partner who strongly encourages and supports them in pursuing goals in areas such as career, academics, and friendships, are more likely to attain those goals (Brunstein et al., 1996). Social support from various sources can benefit goal progress, including from romantic partners and friends, but also from parents, colleagues, teachers, supervisors, and health care providers (Fitzsimons & Shah, 2008; Milyavskaya & Werner, 2018). Considering the above, social support appears to have a notable influence on successful goal progress.

Given that social support can have a great influence on self-regulatory processes and on the progress of important goals in daily life (Allgöwer et al., 2001; Brunstein et al., 1996; Cohen & Lichtenstein, 1990; Fitzsimons et al., 2015; Tamers et al., 2011), it could be argued that social support seeking can serve as a self-control strategy that promotes goal progress. Social support seeking can occur when, for example, people discuss challenges with a partner, which may boost self-efficacy and motivation (Morelli et al., 2015). Social support seeking can also be beneficial in more tangible ways. For example, if you ask your partner to be supportive on your attempts to lose weight, he may refrain from buying junk food and cook healthy meals (Milyavskaya & Werner, 2018). In this way, social support seeking could make it more likely to make progress on long-term goals. Therefore, social support seeking may serve as a self-control strategy that facilitates goal progress, which may be an additional explanation for the success of people with high trait self-control.

The present study

In summary, earlier research shows that trait self-control is associated with the use of several *intrapersonal* self-control strategies that facilitate goal progress (Duckworth et al., 2016; Duckworth et al., 2018; Hennecke & Bürgler, 2020; Milyavskaya et al., 2021), but little is

known about the use of *interpersonal* self-control strategies. Just as successful self-controllers are more likely to effectively manage their exposure and perceptions toward temptations on an individual level, they may similarly be more likely to effectively manage the support they receive from others. As such, it could be that people with high trait self-control seek more support from others in their environment than people with low trait self-control, which in turn contributes to their more successful goal progress. Therefore, the purpose of the present study is to examine whether the relationship between trait self-control and goal progress is mediated by social support seeking. Considering previous research, it is hypothesized that there is a positive relationship between trait self-control is positively related to social support seeking in such a way that high trait self-control is positively related to social support seeking, which in turn positively relates to goal progress.

Some studies differentiate between different types of social support. Social support can broadly be categorized into two subtypes: emotional support (e.g., encouragement, reassurance, or understanding) and instrumental support (e.g., assistance, advice, or information) (Morelli et al., 2015; Vowels & Carnelley, 2020). Researchers disagree on the extent to which these different types of support may be advantageous for a variety of outcomes. Some studies found emotional support being more beneficial than instrumental support (Duncan et al., 2005; Morelli et al., 2015), while other studies found that both types predict better outcomes (Jakubiak et al., 2019; Overall et al., 2010). Concerning the present study, it is possible that one specific type of social support is more influential on goal progress than the other. Therefore, the mediating role of social support seeking for emotional and instrumental reasons will be separately examined in an exploratory manner.

The integration of interpersonal strategies into the self-control literature will provide a more extensive picture of the processes by which people pursue their goals in daily life. Therefore, the outcomes of this study possibly bring novel implications for future research as well as interventions that will allow individuals to use their self-control successfully and more effortlessly.

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Method

Participants and Design

A total of 170 participants took part in this study. 15 Participants were excluded from the analyses because they did not specify a long-term goal. Because participants had to keep a long-term goal in mind while answering the subsequent questions, these questions could not be answered correctly without specifying one. Therefore, their answers were considered as invalid. Another 4 participants were excluded from the analyses because they did not complete the whole questionnaire. The final sample included 151 participants, consisting of 92 women (60.9%) and 59 men (39.1%). The participants had a mean age of 42.30 years (*SD* = 15.38). Guidelines from Fritz and Mackinnon (2007) were used to determine the required sample size to find a small/medium mediation effect. Based on a power of 0.8, a sample size of 148 participants was required for this study. The study had a cross-sectional design. The independent variable was goal progress. This research project has been approved by the Faculty Ethics Review Board (FERB) of Utrecht University (UU-SER approval number: 22-0216).

Procedure

An online questionnaire was used to conduct the research, carried out with the program Qualtrics (www.qualtrics.com). The questionnaire was administered in Dutch. Participants were personally approached to complete the questionnaire via social media (e.g., LinkedIn and WhatsApp) and via e-mail. Additionally, snowball sampling was used to recruit participants. The questionnaire was accessible by computer, smartphone, or tablet. There was no reward for participation in this study.

By means of a link, participants could open and complete the questionnaire in Qualtrics. A letter of consent was shown prior to the questionnaire (see appendix 1). When participants agreed with the letter of consent, they were forwarded to the questionnaire.

Firstly, trait self-control was measured. Following this, participants were asked to specify a current long-term goal in which they notice they encounter obstacles and temptations. Subsequently, goal progress was measured by asking participants to rate the extent to which they made progress on the specified long-term goal. After this, social support seeking was measured. Participants were asked to keep their specified long-term goal in mind while answering the questions. Lastly, demographic data was requested regarding the participants' gender and age. After completing the questionnaire, a debriefing was shown in

which the purpose of the study was again described as well as contact information for questions.

Materials

The materials are discussed in the same sequence in which they were presented to the participants. The complete questionnaire can be found in appendix 2.

Trait self-control. To measure trait self-control, the Dutch version of the Brief Self-Control Scale (BSCS; Tangney et al., 2004) was used. The scale consisted of 13 items. The items were answered on a 5-point Likert scale (1 = not applicable to me at all, 5 = fully applicable to me). Example items are: "I am good at resisting temptation" and "I wish I had more self-discipline" (reverse coded). Nine items were reverse coded. The mean score has been calculated over the whole scale. Higher scores on the scale indicated a higher degree of trait self-control. The internal reliability of the scale was found to be good, with a Cronbach's alpha of .87.

Goal Progress. Before measuring goal progress, an introductory text regarding selfcontrol dilemmas was shown. This introductory text described that people regularly set longterm goals in daily life. Some examples of long-term goals were mentioned, such as losing weight, drinking less alcohol, and saving money. It was explained that people often encounter obstacles and temptations, which create self-control dilemmas and which keep them from achieving their long-term goals. Some examples of self-control dilemmas were mentioned. At the end of the introductory text, participants were asked to specify a current long-term goal in which they notice they encounter obstacles and temptations. To measure goal progress, a single item was used: "Please rate the extent to which you made progress on this goal." The item was answered on a 9-point Likert scale (1 = not at all, 9 = totally). This measure has been used in several previous studies (Koestner et al., 2002; Powers et al., 2007).

Social Support Seeking. To measure social support seeking, the Dutch version of the Seeking Social Support for Emotional Reasons (SSSER) and the Seeking Social Support for Instrumental Reasons (SSSIR) subscales were used, which are part of the Coping Orientations to Problems Experienced Scale (COPE; Carver et al.,1989; Kleijn et al., 2000). To introduce the questionnaire, participants were asked to keep their specified long-term goal in mind while answering the questions. The subscales consist of 4 items each. The items were answered on a 4-point Likert scale (1 = I haven't been doing this at all, 4 = I've been doing this a lot). Example items are: "I talk to someone about how I feel" (SSSER) and "I ask people who have had similar experiences what they did" (SSSIR). The mean score has been

calculated over the whole scale and over the two subscales individually. Higher scores on the scale indicated a higher degree of social support seeking. The internal reliability of the whole scale was found to be excellent, with a Cronbach's alpha of .91. The internal reliability of the SSSER and SSSIR subscales was found to be correspondingly excellent, with a Cronbach's alpha of .90 for both subscales.

Data analysis

The data of this study was analyzed using IBM SPSS Statistics, version 28. First, the data was visually inspected. Participants who did not specify a long-term goal or who did not complete the whole questionnaire were excluded.

Prior to the main analyses, descriptive analyses were conducted; the means and standard deviations of the demographic variables (e.g., age and gender) were computed. Next, the scales were examined. Nine items of the Brief Self-Control Scale that were negatively related to the concept were recoded. Afterwards, the internal reliability was calculated for the Brief Self-Control Scale, the whole Seeking Social Support scale, and the SSER and SSIR subscales. Subsequently, the mean scores were calculated for the scales. The data was checked for the assumptions of linearity, normality, and homoscedasticity. Afterwards, the coherence between all variables was examined on the basis of a correlation matrix.

To test the hypothesis, a mediation analysis was performed using the PROCESS macro (version 3.5) for SPSS (Hayes, 2013). A bootstrap estimation approach with 5000 samples was used. An alpha of .05 was used to assess the direct effect. To assess the indirect effect, a bootstrapped 95% confidence interval was used, checking whether 0 was included in the confidence interval. Lastly, two additional mediation analyses were similarly performed to explore the mediating role of social support seeking for emotional reasons and instrumental reasons individually.

Results

Firstly, the data was checked for the assumptions of linearity, normality, and homoscedasticity. Then, a correlation analysis was performed in which the coherence between the study variables was examined. Table 1 outlines an overview of the descriptive statistics and the correlations between the variables. The correlations between trait self-control, social support seeking, and goal progress were statistically significant. A small positive correlation was found between trait self-control and social support seeking (r = .19, p = <.05). Medium size positive correlations were found between trait self-control and goal progress (r = .34, p = <.01) and between social support seeking and goal progress (r = .46, p = <.01).

Table 1

	М	SD	1	2	3	4	5	6
1. Age	42.30	15.38	-					
2. Trait Self-Control	3.41	0.65	.18*	-				
3. Social Support Seeking	2.11	0.78	09	.19*	-			
4. Social Support Seeking	2.09	0.85	04	.16	.90**	-		
for emotional reasons								
5. Social support seeking	2.12	0.88	12	.18*	.91**	.63**	-	
for instrumental reasons								
6. Goal Progress	5.50	2.22	04	.34**	.46**	.37**	.43**	-

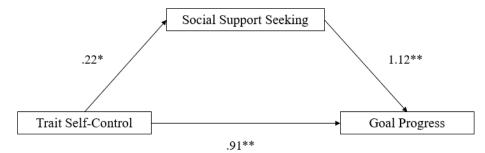
Descriptive statistics and correlations between study variables. N = 151 (92 women, 59 men).

Note. **p* <.05, ***p* <.01. Correlations of variables are determined on *Pearson's r*.

Next, the hypothesis was tested. It was hypothesized that there is a positive relationship between trait self-control and goal progress, which is mediated by increased social support seeking. The results show a significant direct effect (b = .91, p = .00) and a significant indirect effect (b = .25, 95% CI [.02; .52]) of trait self-control on goal progress through social support seeking. The results show that the hypothesis can be confirmed; there is a positive relationship between trait self-control and goal progress, which is mediated by social support seeking in such a way that high trait self-control is positively related to social support seeking, which in turn positively relates to goal progress. Due to both a significant direct and indirect effect, there is a partial mediation (see Figure 1).

Figure 1

Mediation model of trait self-control, social support seeking and goal progress



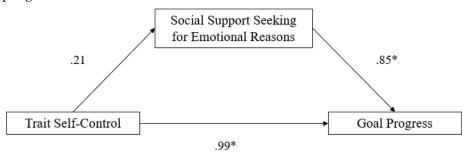
Note. The numbers reflect the regression coefficient. *p < .05, **p < .01.

Subsequently, two explorative analyses were carried out to investigate whether there are differences between emotional support and instrumental support. As can be seen in Table 1, the correlation between trait self-control and social support seeking for emotional reasons was statistically significant. Additionally, there were significant correlations found between trait self-control, social support seeking for instrumental reasons, and goal progress. These significant correlations gave rise to further analyses. For this purpose, two additional mediation analyses were performed to explore the mediating role of social support seeking for emotional reasons and instrumental reasons individually.

Firstly, the mediating role of social support seeking for emotional reasons was examined in an exploratory manner. The results show a significant direct effect (b = .99, p = .00) and an insignificant indirect effect (b = .17, 95% CI [-.01; .39]) of trait self-control on goal progress. Due to a significant direct and an insignificant indirect effect, the results show that there is no mediating effect of social support seeking for emotional reasons on the relationship between trait self-control and goal progress (see Figure 2).

Figure 2

Mediation model of trait self-control, social support seeking for emotional reasons and goal progress

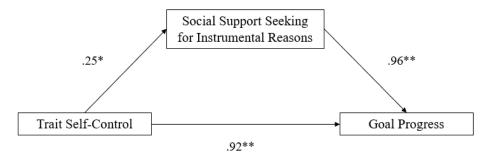


Note. The numbers reflect the regression coefficient. *p < .01.

Lastly, the mediating role of social support seeking for instrumental reasons was examined in an exploratory manner. The results show a significant direct effect (b = .93, p = .00) and a significant indirect effect (b = .24, 95% CI [.01; .50]) of trait self-control on goal progress. Due to both a significant direct and indirect effect, the results show that there is a mediating effect of social support seeking for instrumental reasons on the relationship between trait self-control and goal progress. Due to both a significant direct and indirect and indirect and a significant indirect effect, there is a partial mediation (see Figure 3).

Figure 3

Mediation model of trait self-control, social support seeking for instrumental reasons and goal progress



Note. The numbers reflect the regression coefficient. *p < .05, **p < .01.

Discussion

While research on self-control strategies has mainly focused on *intrapersonal* strategies that people use to make progress on their goals, there has been little effort to integrate *interpersonal* strategies into the self-control literature. Therefore, the aim of the present study was to examine whether the relationship between trait self-control and goal progress is mediated by social support seeking. Considering previous research, it was hypothesized that there is a positive relationship between trait self-control and goal progress, which is mediated by social support seeking.

In line with this hypothesis, the results showed that trait self-control is positively related to goal progress, and this relationship can be partially explained by social support seeking. In other words, participants with higher trait self-control engage in more social support seeking, which in turn contributes to their more successful goal progress.

Previous research proposed that successful self-control may depend on the employment of self-control strategies (Hennecke & Bürgler, 2020) because they circumvent the need for effortful inhibition, which consequently leaves more room for initiatory goal

pursuit (De Ridder et al., 2018). Building on this, research suggested that trait self-control is associated with an increased use of intrapersonal strategies when pursuing goals, such as are re-evaluating one's perceptions of temptations and situations and shifting attention away from temptations (Duckworth et al., 2016; Duckworth et al., 2018; Gillebaart & De Ridder, 2015; Hennecke & Bürgler, 2020; Milyavskaya et al., 2021; Werner & Milyavskaya, 2019). Earlier research already hinted at the possibility that social support seeking could serve as an alternative self-control strategy by showing that social support can have a significant influence on self-regulatory processes and goal progress. For example, Tamers and colleagues (2011) found that individuals with strong worksite social support showed an improved diet and higher levels of physical activity. Additionally, the study by Fitzsimons and Shah (2008) indicated that people showed more effective goal achievement when they drew closer to goal-supportive others. The findings of this study contribute to the available evidence by discovering that social support seeking is indeed used as a self-control strategy to make progress towards long-term goals. Therefore, social support seeking may be an additional explanation for the success of people with high trait self-control.

In addition to this main finding, the mediating role of social support seeking for emotional and instrumental reasons was separately examined in an exploratory manner. The results of this study revealed that social support seeking for instrumental reasons partially mediated the relationship between trait self-control and goal progress, while this mediating effect was not found for social support seeking for emotional reasons. This implies that people with higher levels of trait self-control are more likely to seek instrumental support (e.g., by asking others for assistance, advice, or information), which in turn positively influences their goal progress. However, people with higher levels of trait self-control do not differ in the degree to which they seek emotional support (e.g., by asking others for encouragement, reassurance, or understanding) in order to make progress on their goals than people with lower levels of trait self-control. The hypothesized effect found in this study thus seems to be entirely due to social support seeking for instrumental reasons.

In earlier studies, there were inconsistencies regarding the extent to which these different types of support may be advantageous for a diversity of outcomes. For example, Morelli and colleagues (2015) found that emotional support, but not instrumental support, predicted individuals' well-being. In contrast, the study by Overall and colleagues (2010) suggested that both types of support predicted greater achievement of self-improvement goals. Hence, there is still a limited understanding of the relative impact of types of social support and how they relate to each other. For instance, it could be that seeking instrumental support

is more strategic than seeking emotional support. Actively asking for assistance or advice may contribute more directly to achieving goals, whereas asking for reassurance or understanding may not have enough direct impact. Furthermore, since goals differ from each other on several aspects (Hennecke & Bürgler, 2020), the nature of the goal that is pursued may moderate the effectiveness of a certain type of social support. For example, emotional support may be more influential for health-related goals whereas informational support may be more influential for work-related goals, or vice versa. For now, the current research solves a piece of the puzzle by showing how trait self-control is related to support-seeking behavior for different types of social support. How seeking different types of social support relates to goal progress in the context of self-control has not been previously explored.

Implications

Whilst prior research has mainly focused on self-control and goal progress as an individual process, the role of the social environment has been largely overlooked. Since people are almost continuously surrounded by others and other people are generally inseparably involved in our goal progress (Milyavskaya & Werner, 2018), it is remarkable that earlier studies generally focused on self-control processes as an individual endeavour. By indicating that effective self-control strategies can also be interpersonal in nature, the current study sheds a novel light on the knowledge of how successful self-control operates. Therefore, considering social contexts on self-control processes represents an interesting theoretical direction for self-control research.

The results of this study also offer practical implications by giving direction to what can be done to help people improve their self-control. As this study points out that social support seeking is used as a self-control strategy to make progress towards achieving goals, future interventions aimed at enhancing self-control could integrate social support seeking. Self-control interventions could help individuals engage in seemingly effortful behaviors without consuming a big amount of self-control resources (Friese et al., 2011). Some interventions aimed at achieving this goal have shown to be effective, for instance by helping people establish implementation intentions (Luszczynska, 2006). As such, intervention programs could similarly achieve this goal by incorporating social support seeking as an additional self-control strategy. This can be done, for example, by guiding people in building social networks and involving others in achieving their goals. Since this study showed that social support seeking for instrumental reasons is particularly influential, future interventions should aim at guiding people to seek instrumental support. It is suggested that the use of a

combination of self-control strategies leads to greater self-regulatory success (Miljavskaya et al., 2020). Therefore, by providing people with a wider variety of self-control strategies that they can flexibly utilize in everyday life, the chances of successful goal progress may be increased. Social support seeking is a complementary strategy to strategies that were previously found to be effective, which can therefore be valuable.

Strengths, limitations, and future directions

This study benefits from a number of strengths. For example, this study involved the social context of people rather than looking at people in isolation. Therefore, the findings of this study can be generalized to real-life settings to a greater extent. This allows for more ecologically valid conclusions. Moreover, in this study, self-control is regarded as a personality trait, which is relatively stable across situations and over time (De Ridder et al., 2012; Gillebaart & De Ridder, 2015) and is associated with a large range of positive outcomes (Tangney et al., 2004). Research on trait self-control is therefore of higher significance than research on state self-control, which is the more momentary and fleeting form of self-control at a given moment (De Ridder et al., 2018).

Besides the strengths, the current study has certain limitations which should be taken into account when interpreting the results. Firstly, this study relies on self-report measures. As indicated by its extensive use, the Brief Self-Control Scale (Tangney et al., 2004) has been demonstrated to be an effective measure of self-control. However, self-report measures of trait self-control depend upon the assumptions that individuals have adequate awareness of their capacity for self-control to accurately report it, that it is stable over situations and time, and that it is stable across categories of self-control challenges (De Ridder et al., 2018; Hoyle & Davisson, 2017). Moreover, there is a great variability in the conceptualization and assessment of the construct of self-control (Duckworth & Kern, 2011) and self-report measures of self-control show low convergence with behavioral measures of self-control (Allom et al., 2016). Therefore, it is recommended for further research to assess trait selfcontrol using multiple methods, including both task and questionnaire measures (Duckworth & Kern, 2011).

Another limitation lies in the fact that goal progress is measured by one single item. Although this measure has been used effectively in several foregoing studies (Koestner et al., 2002; Powers et al., 2007), the reliability of single-item measures can be doubted (Wanous & Reichers, 1996). Additionally, this measure of goal progress is likewise based on self-report of perceived progress instead of an objective judgment. More objective measures would be

particularly useful in further research, for example by tracking actual goal progress at different points in time (e.g., passed courses when measuring study progress; lost pounds when measuring weight loss).

Lastly, the correlational design of this study does not allow for conclusions considering causal links between the constructs. Although the findings of this study suggest that people with higher levels of trait self-control have more successful goal progress through higher levels of social support seeking, the nature and directionality of the relationships between the variables have to be further investigated. This can be done using a longitudinal design, using multiple time intervals of data collection.

Since this study illustrates that self-control strategies could also be interpersonal in nature, a relevant direction for further research is to investigate a broader range of potential interpersonal self-control strategies. For example, VanDellen and colleagues (2015) found that effective (versus ineffective) self-controllers have greater preferences to spend time with, work together with, and be informed by people who are high in self-control. This suggests that people with higher self-control place themselves in social environments that increase their chances of success (VanDellen et al., 2015). In this regard, this may serve as an actual self-control strategy that contributes to the more successful goal progress of people with high trait self-control. Whereas social support seeking is a self-control strategy where social contact is actively sought, this would possibly be a strategy that is applied more passively. Exploring other ways how people use their social environment in order to make progress towards achieving their goals will further expand our knowledge of self-control strategies, thus representing an interesting future research direction.

Another recommendation for further research is to investigate the effects of different types of social support across diverse areas more precisely. As mentioned above, there is still a limited understanding of the relative impact of types of social support and how they relate to each other. Hence, more targeted research is desirable to better determine the possible links between types of social support and their effects across multiple goal domains.

Conclusion

High trait self-control is associated with a rich assortment of positive outcomes, such as better health, academic achievement, and better relationships and interpersonal skills (Tangney et al., 2004). Therefore, research on processes underlying self-control success is an important undertaking. This study contributes to getting a more complete picture of the processes by which people pursue goals by finding that social support seeking mediates the relationship

between trait self-control and goal progress. By continuing to investigate why people who have higher levels of self-control are more successful in attaining their goals, a more detailed understanding of the processes that are involved in self-control will be acquired. Methods for improving self-control can in this way be refined, giving people a better chance at developing future success.

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Appendix 1 – Letter of consent

Beste deelnemer,

Je bent uitgenodigd om mee te doen aan een thesisonderzoek van Universiteit Utrecht, uitgevoerd door Romy van Diest. Het doel van het onderzoek is om meer inzicht te krijgen in hoe mensen hun sociale omgeving gebruiken om hun doelen na te streven. Deelname aan het onderzoek bestaat uit het invullen van een aantal vragenlijsten. Deze bestaan uit demografische gegevens, een vraag over jouw huidige doel(en) en stellingen die aan de hand van een schaal beantwoord kunnen worden. Het invullen duurt vijf tot tien minuten. De vragenlijsten dienen volledig en naar eigen mening ingevuld te worden. Er zijn geen goede of foute antwoorden.

Deelname aan het onderzoek is geheel vrijwillig. Je bent vrij om het onderzoek op ieder moment en zonder opgave van reden te beëindigen. De gegevens zullen vertrouwelijk en anoniem worden behandeld en alleen voor wetenschappelijke doeleinden worden gebruikt. De gegevens zullen daarom niet herleidbaar zijn tot jou als persoon.

Wanneer je wilt deelnemen aan dit onderzoek, kun je onderaan de pagina toestemming geven door het vakje aan te klikken. Je verklaart hiermee geïnformeerd te zijn over het onderzoek en geeft toestemming dat je antwoorden gebruikt zullen worden voor het onderzoek.

Indien er nog vragen of opmerkingen over het onderzoek zijn, dan kun je contact opnemen via r.vandiest@students.uu.nl. Bij voorbaat dank voor je medewerking.

• Ik ga akkoord

Appendix 2 - Questionnaire

Trait self-control – Brief Self-Control Scale (Tangney et al., 2004)

De volgende uitspraken gaan over hoe je tegen jezelf aankijkt. Geef aan in hoeverre de uitspraken op jou van toepassing zijn. *Antwoordcategorieën: 1 = helemaal niet op mij van toepassing; 5= heel erg op mij van toepassing*

- 1. Ik kan verleidingen goed weerstaan
- 2. Ik vind het moeilijk om met slechte gewoontes te stoppen *
- 3. Ik ben lui *
- 4. Ik zeg ongepaste dingen *
- 5. Ik doe weleens dingen die slecht voor me zijn als ze leuk zijn *
- 6. Ik weiger dingen die slecht voor me zijn
- 7. Ik zou willen dat ik meer zelfdiscipline had *
- 8. Mensen zeggen dat ik een ijzeren zelfdiscipline heb
- 9. Pleziertjes weerhouden me er soms van mijn (huis)werk af te krijgen *
- 10. Ik heb moeite met concentreren *
- 11. Ik kan goed werken aan lange termijn doelen
- 12. Soms kan ik mezelf er niet weerhouden iets te doen, zelfs als ik weet dat het verkeerd is *
- 13. Ik doe vaak dingen zonder goed na te denken over mogelijke alternatieven *

* Gehercodeerd

Introductietekst langetermijndoelen

Heb jij goede voornemens voor 2022? In ons dagelijks leven stellen we regelmatig langetermijndoelen. Je zult dan ook niet de enige zijn met goede voornemens zoals afvallen, meer bewegen, minder alcohol drinken, geld sparen of minder tijd op je telefoon doorbrengen. Bij het nastreven van doelen komen we echter vaak obstakels en verleidingen tegen die ons van onze doelen afhouden. Iemand met het doel om af te vallen wil bijvoorbeeld (op dat moment) óók dat lekkere taartje, iemand die meer geld wil besparen kan die spullen in de aanbieding niet laten liggen, of iemand die meer wil bewegen kiest na een lange werkdag ervoor om de tv aan te zetten in plaats van door de kou naar de sportschool te gaan. Zo ontstaat er een dilemma tussen twee dingen die je graag wil, maar niet altijd samengaan. De verleiding op de korte termijn wint het daarbij snel van het langetermijndoel.

Wat is voor jou een langetermijndoel waarbij je merkt dat je daar soms obstakels en verleidingen in tegenkomt? *Open vraag*

Goal progress

Antwoordcategorieën: 1 = helemaal niet; 9 = heel veel

1. Beoordeel alsjeblieft de mate waarin je vooruitgang hebt geboekt met dit doel.

Social Support Seeking – Coping Orientations to Problems Experienced Scale (COPE; Carver et al.,1989; Kleijn et al., 2000)

Houd jouw langetermijndoel, waarbij je merkt dat je daar soms obstakels en verleidingen in tegenkomt, in gedachten bij het beantwoorden. Lees de uitspraken en geef aan hoeveel je deze strategieën hebt toegepast. Antwoordcategorieën: 1 = ik heb dit helemaal niet gedaan; 4 = ik doe dit veel

Seeking Social Support for Instrumental Reasons (SSSIR)

- 1. Ik vroeg aan mensen met dergelijke ervaringen hoe zij reageerden.
- 2. Ik vroeg advies aan iemand.
- 3. Ik sprak met iemand om meer te weten te komen over de situatie.
- 4. Ik sprak met iemand die iets aan het probleem kon doen.

Seeking Social Support for Emotional Reasons (SSSER)

- 1. Ik sprak met iemand over hoe ik mij voelde.
- 2. Ik zocht steun bij vrienden of familie.
- 3. Ik besprak mijn gevoelens met iemand.
- 4. Ik vroeg medeleven en begrip van iemand.

Demografische gegevens

- Wat is je geslacht? Antwoordcategorieën: Man / Vrouw / Anders dan bovenstaande / Wil ik niet zeggen
- 2. Wat is je leeftijd in jaren? Open vraag

Debriefing

Je bent aan het einde gekomen van het onderzoek. Het doel van het onderzoek is om meer inzicht te krijgen in hoe mensen hun sociale omgeving gebruiken om hun doelen na te streven. Indien er nog vragen of opmerkingen over het onderzoek zijn, dan kun je contact opnemen via r.vandiest@students.uu.nl.

Hartelijk dank voor je deelname. Je antwoorden zijn opgeslagen en je kunt het scherm afsluiten.