

The Fluctuation of Self-Kindness in Flourishing and Non-Flourishing University

Students

UNIVERSITY
OF TWENTE.

Celina Schulze

Department of Psychology

Bachelor Thesis

Dr. Marijke Schotanus-Dijkstra

Alejandro Dominguez Rodriguez

June 25, 2023

Abstract

Self-kindness, as part of self-compassion, has the potential to give meaningful insights into the functioning of well-being as it has been found to have several health-related benefits, especially for university students who often experience higher amounts of stress and mental health problems than the general population. However, less is known about the fluctuation of self-kindness in flourishing and non-flourishing individuals. It was hypothesised that self-kindness fluctuates less over time for flourishers compared to non-flourishers as flourishers tend to react with less distress to stressful life events. In the current study, the Experience Sampling Method (ESM) was used for measuring self-kindness three times daily over a period of seven days. The sample consisted of 18 university students aged between 20 and 26, with the majority (66.7%) being female. Consistent with previous literature, self-kindness and flourishing was found to be positively correlated at baseline, indicating that flourishing individuals have higher levels of self-kindness than non-flourishing individuals. Results of a Linear Mixed Model analysis showed self-kindness fluctuating over time, with more variability within than between persons. Irrespective of the flourishing status, self-kindness was observed to be significantly lower in the morning compared to other times of the day. Additionally, flourishers reported significantly higher scores of self-kindness in the evening than non-flourishers. Findings highlight the importance of taking time of the day into account when examining self-kindness and suggest the influence of other factors on self-kindness. Overall, the study gives insight into the dynamic nature of self-kindness. However, the study was limited in several ways and the results need to be interpreted with caution. Future research should strive for a larger sample size to ensure greater statistical power.

Keywords: university students, mental well-being, self-kindness, flourishing

The Fluctuation of Self-Kindness in Flourishing and Non-Flourishing University Students

University students often experience a great amount of stress in their daily life as they are regularly confronted with several stressors related to academic demands, social interactions, and financial pressures. It is often perceived as a challenge to keep academic and personal life balanced, which in turn has a significant influence on student's physical, emotional, and psychological well-being (Eisenberg et al., 2007; Stallman, 2010). According to the American College Health Association (2019), students experience higher levels of stress and mental health problems than the general population. Most prevalent mental health problems are depression and anxiety, with symptoms such as fatigue, insomnia, and concentration problems (Stallman, 2010). Given the importance of academic success and the need to maintain and enhance personal well-being, it is highly valued to identify effective stress management strategies and support mental health in students.

To gain a better understanding of how student's well-being can be addressed, it is essential to differentiate between the absence of mental illness and the state of mental well-being. According to Keyes (2002), these two dimensions differ from each other, although they are interconnected. Research has shown that a reduction in symptoms of mental illness is associated with improvements in mental health. However, the absence of mental illness does not guarantee the presence of mental well-being, and vice versa. Thus, mental health can be conceptualised as a two-factor model, with one dimension indicating the presence or absence of mental illness and the other determining the level of mental well-being, which can range from languishing to flourishing (Keyes, 2002).

Flourishing is defined as experiencing high levels of emotional, social, and psychological well-being. More concretely, it is characterised by positive emotions, accomplishment, engagement, and positive relationships, which is found to foster individual's achievement-related functioning (Howell, 2009; Keyes, 2002). A study conducted by Howell

(2009) investigated a sample of 397 undergraduate university students with 21.4% of the students flourishing. In contrast to non-flourishers, who exhibited moderate mental health (59.4%) or were languishing (19.1%), flourishers were less procrastinative and reported higher self-control and higher grades. These findings highlight the importance of understanding the impact of stress on student's well-being, as non-flourishers are often less able to cope with stressors, resulting in lower achievement-related functioning. Consequently, it is crucial to identify factors that enhance student's resilience to stress and promote their overall well-being. One factor that has the potential to enhance resilience and improve well-being, is self-kindness.

Self-kindness

Self-kindness is a concept that has the potential to give meaningful insights into the functioning of wellbeing as it has been found to have several health-related benefits for individuals, including students facing stress (Neff, 2003; MacBeth & Gumley, 2012). As one of the three dimensions of self-compassion, self-kindness is defined as the ability to forgive oneself while treating one's own behaviour with insight and patience. Self-kind people have the feeling that they are worthy of love and affection (Neff, 2003). Maslow (1943) stated that self-kindness is essential for developing self-confidence, worth, and a sense of being useful and necessary to the world. He argued that people who do not develop such sense of self, are more helpless and may develop compensatory neurotic behaviours. Additionally, Stallman et al. (2018) found that self-kindness in university students was negatively correlated to psychological distress, and this relationship was partially mediated by being present. Giving evidence for self-kindness as an ability for stress management, the nature of self-kindness needs to be explored further.

Until now, most of the available studies explored self-compassion rather than one of its dimensions of self-kindness, mindfulness, and common humanity. Stallman et al. (2018) highlight the importance of exploring self-kindness separately from self-compassion to

understand underlying processes more in detail. However, there is still little known about self-kindness and its relation to well-being, while self-compassion in relation to well-being and flourishing is well investigated. For instance, a meta-analysis conducted by MacBeth & Gumley (2012) found that a high level of compassion is related to a significant reduction of psychopathology and fewer symptoms of mental disorders, including depression and anxiety, which are most prevalent among students (Stallman, 2010). Additionally, previous studies found a positive association between self-compassion and emotional well-being (Neff, 2011; Satici et al., 2013; Zessin et al., 2015). For instance, Satici et al. (2013) and Akin & Akin (2015) conducted cross-sectional studies in a sample of university students, demonstrating a positive correlation between self-compassion and human flourishing, with self-kindness being the strongest predictor for flourishing. These findings were further supported by the study of Verma & Tiwari (2017), who identified self-compassion as a significant predictor of flourishing in a student sample. Hence, the studies indicate that flourishers, characterised by high well-being, exhibit higher levels of self-compassion and positive functioning. In contrast, non-flourishers tended to report lower levels of self-compassion, well-being, and impaired functioning. The observed association between self-compassion and flourishing can be attributed to the notion that self-compassionate individuals tend to react to challenging life events with reduced levels of stress and anxiety, leading to enhanced well-being (Neff, 2011; Verma & Tiwari, 2017). To summarise, the studies reviewed support a positive correlation between self-compassion and well-being, particularly in relation to flourishing. Specifically Akin & Akin (2015) have demonstrated the significance of self-kindness as the strongest predictor of flourishing and effective coping with distress. However, despite the existing findings, the relation between self-kindness and well-being remains relatively understudied, and further research is warranted, particularly to investigate the impact of daily stressors on the stability of self-kindness.

In light of these research findings, it is important to acknowledge the potential daily fluctuations in self-kindness, particularly in the context of stressful situations encountered in daily life. This is especially relevant for students who often face achievement-related stressors (Neff, 2007; Stallman, 2010). Hence, the question raises whether self-kindness is a fixed or dynamic trait, allowing for a more goal-directed implementation of self-kindness interventions aimed at enhancing well-being. It is known that flourishing individuals tend to have higher levels of self-compassion than non-flourishers, and thus react with less distress to stressful life events (Neff, 2011; Satici et al., 2013; Stallman et al., 2018; Zessin et al., 2015). Therefore, the current study assumes that flourishing individuals experience less fluctuations in self-kindness during the day compared to non-flourishers.

For assessing daily fluctuations in certain variables, the Experience Sampling Method (ESM) is an important measurement approach. ESM allows for the assessment of individual's feelings and thoughts during their daily lives through repeated self-report questions administered at multiple time points throughout the day (Larson & Csikszentmihalyi, 2014). Previous studies used mainly a cross-sectional study design for the investigation of self-compassion. Nevertheless, a few studies investigated the variability of self-compassion. For instance, Neff et al. (2007) found that self-compassion scores varied throughout the day, with lower scores during stressful events and higher scores during positive events. Other research showed that the level of self-compassion can be increased through different practices, such as mindfulness meditation, showing self-kindness as a changeable trait (Hofmann et al., 2011). These studies suggest that self-compassion is not a fixed trait, but rather a dynamic construct that varies depending on situational factors. Since self-kindness is part of self-compassion, its fluctuation is assumed to equal the one of self-compassion.

Therefore, the aim of the present study is to investigate the intra-individual variability in self-kindness during the day for flourishers versus non-flourishers by using ESM. It is

assumed that flourishers are less affected by daily fluctuations in self-kindness than non-flourishers.

Method

Design

The study was set up as a longitudinal online study, using ESM over the course of seven days. Participants had to complete a baseline questionnaire and three times daily predefined questions in the Ethica application. The current study was approved by the University of Twente Ethics Committee (no. 230205).

Participants

24 participants were recruited, of which 6 were excluded from the data analysis due to no completed informed consent ($N = 5$) or not having an age between 18 and 27 years ($N = 1$). As a result, 18 out of 24 participants remained in the data analysis. The age range of the sample was between 20 to 26 years ($M_{age} = 22.39$, $SD_{age} = 1.38$). All participants were studying, with the majority currently doing their bachelor's degree ($N = 15$) and 3 participants were doing their master's. 12 (66.7%) participants identified as female and 6 (33.3%) as male. Additionally, 11 (61.1%) participants were German, 5 (27.8%) participants were Dutch, and 2 (11.1%) had other nationalities.

Procedure

The current study used a convenience sample where participants were recruited either via the researcher directly or via the Sona systems of the University of Twente. The Sona system is an internally used test-subject pool of the Faculty of Behavioral, Management, and Social Sciences of the University of Twente, which allows students to participate in different research projects. Participants included in this study had to own a smartphone or another mobile device, be proficient in English language, and indicate to be a student. Participants signed up via the Sona system or through the researcher directly. Afterwards, they downloaded the Ethica application on their own smartphone and gave informed consent to

take part in this study. In the Ethica application, they had to sign up with their unique participation code and had to allow push notifications. The Ethica application is a data collection tool which uses participants own smartphone with either Android or iOS. The application allows for collection of real-time data suitable for ESM. A predefined set of questions appears at the participants workflow several times per day for a determined time frame. Moreover, the system reminds the participant through push notifications when questions need to be answered. Additionally, questions can be set up to expire after a certain time for ensuring the momentary character of data collection which is essential for ESM. For this study, version 632 of the Ethica application was used.

On the first day, participants completed demographic information and the baseline questionnaire. During the next seven days, participants received three times a day (9-11am, 2-4pm, 9-11pm) 18 questions in randomized section order. Push notifications were sent to prompt the participants to complete the survey, and a reminder was sent 60 minutes later if they did not respond. Each survey was available for 120 minutes to ensure the momentary assessment. On the last day, participants received an Email thanking them for participation and providing the researcher's contact information. Participants signed up through the Sona system received one credit as reward for participation while those external to the Faculty of Behavioral, Management, and Social Sciences of the University of Twente did not receive any compensation.

Materials

The current study was part of a larger research project, two of the assessments were used for the current analyses.

Self-kindness

Two items of the Self-Compassion Scale Short Form (SCS-SF) were used for measuring the overall level as well as the daily fluctuation of self-kindness (Raes et al., 2011). Overall, the SCF-SF consists of 12 items and is divided into six subscales. The subscales

represent the three dimensions mindfulness (2 items), self-kindness (2 items), and common humanity (2 items) as well as their negative counterparts, namely self-judgement (2 items), isolation (2 items), and over-identification (2 items). The latter three are coded in reverse meaning. The scale is using a 5-Point Likert Scale ranging from 1 (almost never) to 5 (almost always). For this research, only the two items of the self-kindness subscale were used and slightly adjusted for daily measurement. This method is based on the study of Li et al. (2019) which used a similar approach. The adjusted items were *“During the last hour, I tried to be understanding and patient towards those aspects of my personality I don’t like.”* and *“During the last hour, I gave myself the caring and tenderness I need.”*. Higher mean scores indicate a higher level of self-kindness. As indicated by Raes et al. (2011), the scale shows good internal consistency ($\alpha = .86$) and is proven to be a valid and reliable alternative for the long format of the SCS. This was also proven in the current study with a Cronbach’s alpha of .72 for the baseline subscale of self-kindness and .76 for daily self-kindness.

Mental Well-being and Flourishing

For assessing individual’s level of well-being and to group people in flourishers and non-flourishers at baseline, the Mental Health Continuum – Short Form (MHC-SF) was used (Keyes et al., 2008). The MHC-SF consists of 14 items which are divided into three subscales, namely emotional well-being (e.g. *“During the past month, how often did you feel happy?”*), social well-being (e.g. *“During the past month, how often did you feel that you had something important to contribute to society?”*), and psychological well-being (e.g. *“During the past month, how often did you feel that you liked most parts of your personality?”*). Each scale ranges from 0 (never) to 5 (almost always), whereby higher mean scores indicate a higher level of mental well-being. Participants scoring 4 or 5 on one or more items of emotional well-being and 4 or 5 on six of the eleven items of social and psychological well-being items, were categorized as flourishers. Remaining individuals were categorized as non-flourishers. According to Keyes et al. (2008), the scale shows good psychometric properties with an

internal reliability of .74. This was also confirmed during the current study with a Cronbach's alpha of .90.

Data Analysis

The data analysis was conducted using RStudio version 2023.03.0+386. First, the data set was cleared from missing values and restructured into long format. All participants who met the predefined inclusion criteria were included in the data analysis. Descriptive statistics were calculated for demographic data. Additionally, means and standard deviations were calculated for baseline values, daily levels, and the course of seven days for the variable self-kindness. Differences in between flourishers and non-flourishers were analysed using independent t-tests and χ^2 -tests.

To assess the relation between the baseline value of self-kindness and flourishing, a Linear Model (LM) was used. Furthermore, a Linear Mixed Model (LMM) analysis with autoregression structure was performed, for investigating the effect of time and flourishing had on daily self-kindness. This approach enables full accountability for the hierarchical and nested structure of ESM data. The model was performed with flourishing status as fixed effect and daily levels of self-kindness as dependent variable. Random intercepts for each participant were used to account for the within subject repeated measurement design. Additionally, the Interclass correlation coefficients (ICCs) were calculated for daily levels of self-kindness to assess the proportion of total variance attributed to between-person level. Self-kindness scores over the seven-day period were visualised in a graph. A random sample of three flourishing and three non-flourishing women was selected to rule out for gender bias.

Results

Descriptive Statistics

Missing data were plotted in a matrix of bar plots, no pattern of missingness could be identified across the measuring points and missing values. 211 out of 378 (55.8%) measuring points were incomplete.

Within the current sample, 4 (22.2%) participants were categorised as flourishers and 14 (77.8%) participants were categorised as non-flourishers. Flourishers tend to be slightly older ($M_{age} = 23.00$, $SD_{age} = 2.16$; $Min = 21$, $Max = 26$) than non-flourishers ($M_{age} = 22.20$, $SD_{age} = 1.12$; $Min = 20$, $Max = 24$). However, there was no significant difference between the age of these two groups ($t(16) = 0.70$, $p = .530$). Of the flourishers, 3 (75.0%) participants were female and 1 (25.0%) was male. For non-flourishers, 9 (64.3%) participants were female and 5 (35.7%) were male. The χ^2 -test indicated that there was no significant difference in gender between flourishers and non-flourishers ($\chi^2(1) = 1.45$, $p = .229$). Table 1 shows means and standard deviations for baseline values, daily levels, and the course of seven days for self-kindness in flourishers and non-flourishers. Means lower than 2.5 indicate a low level of self-kindness, means between 2.5 and 3.5 indicate a moderate level and means between 3.5 and 5.0 a high level (Raes et al., 2011). Hence, means of self-kindness within the current sample represent a moderate level of self-kindness ($M_{morning} = 2.97$, $SD = 0.57$; $M_{afternoon} = 2.91$, $SD = 0.77$), except for the evening mean in flourishers which represents a high level of self-kindness ($M = 3.88$, $SD = 1.01$). Furthermore, the ICC analysis showed significant within-person variability ($ICC1 = -0.65$, $p < .001$) and less between-person variability ($ICC3 = 0.16$, $p = .007$), suggesting more variation in self-kindness within participants than between participants over time.

The results of a LM analysis showed a positive correlation between the baseline value of self-kindness and people flourishing ($\beta = 0.76$, $SE = 0.14$, $t(1, 97) = 5.47$, $p < .001$, 95% CI [0.49, 1.04]), indicating that flourishing individuals reported higher levels of self-kindness than non-flourishers.

Table 1

Means, Standard Deviations, and Linear Mixed Model Analysis of Self-kindness in Flourishers and Non-Flourishers.

Measure	Flourisher		Non-Flourisher		Effect	LMM		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>SE</i>	<i>t</i>	<i>p</i>
Self-kindness seven days	3.26	0.91	2.68	1.12	G	0.49	0.17	.869
Self-kindness								
Morning	2.97	0.57	2.58	1.22	T	0.14	-2.41	<.001
Afternoon	2.91	0.77	2.74	1.24	T	0.45	1.37	.172
Evening	3.88	1.01	2.73	0.96	T	0.14	-1.50	.112
Self-kindness								
Morning					G x T	0.27	1.32	.190
Afternoon					G x T	0.39	1.26	.162
Evening					G x T	0.26	4.04	<.001

Note. N = 18. LMM = Linear Mixed Model; G = group (Flourisher/ Non-Flourisher); T = time.

A LMM analysis was conducted for estimating the effect of time and flourishing on self-kindness. Random intercepts were included for individual differences in self-kindness ($\sigma^2 = 0.63$, $SD = 0.79$) and residuals ($\sigma^2 = 0.51$, $SD = 0.72$). The model fits the data as indicated by REML criterion at convergence of 568.4.

Effect of Flourishing on Self-kindness

Table 1 shows the effect of flourishing on self-kindness over the seven-day period. The results showed no significant effect of flourishing on self-kindness ($b = 0.08$, $SE = 0.49$, $t(19.32) = 0.17$, $p = .869$), indicating that there was no significant difference in daily levels of self-kindness between flourishers and non-flourishers.

Effect of Time on Self-kindness

The main effect of time was examined separately for the morning, afternoon, and evening. The results showed that participants reported lower self-kindness scores in the morning compared to other times of the day, irrespective of the flourishing status ($b = -0.34$, $SE = 0.14$, $t(217.61) = -2.41$, $p < .001$), as shown in Table 1. The effect size was moderate with a Cohen's d of 0.48. However, the main effect of time was not significant for the afternoon ($b = 0.61$, $SE = 0.45$, $t(217.29) = 1.37$, $p = .172$) nor for the evening ($b = -0.23$, $SE = 0.14$, $t(217.31) = -1.50$, $p = .112$).

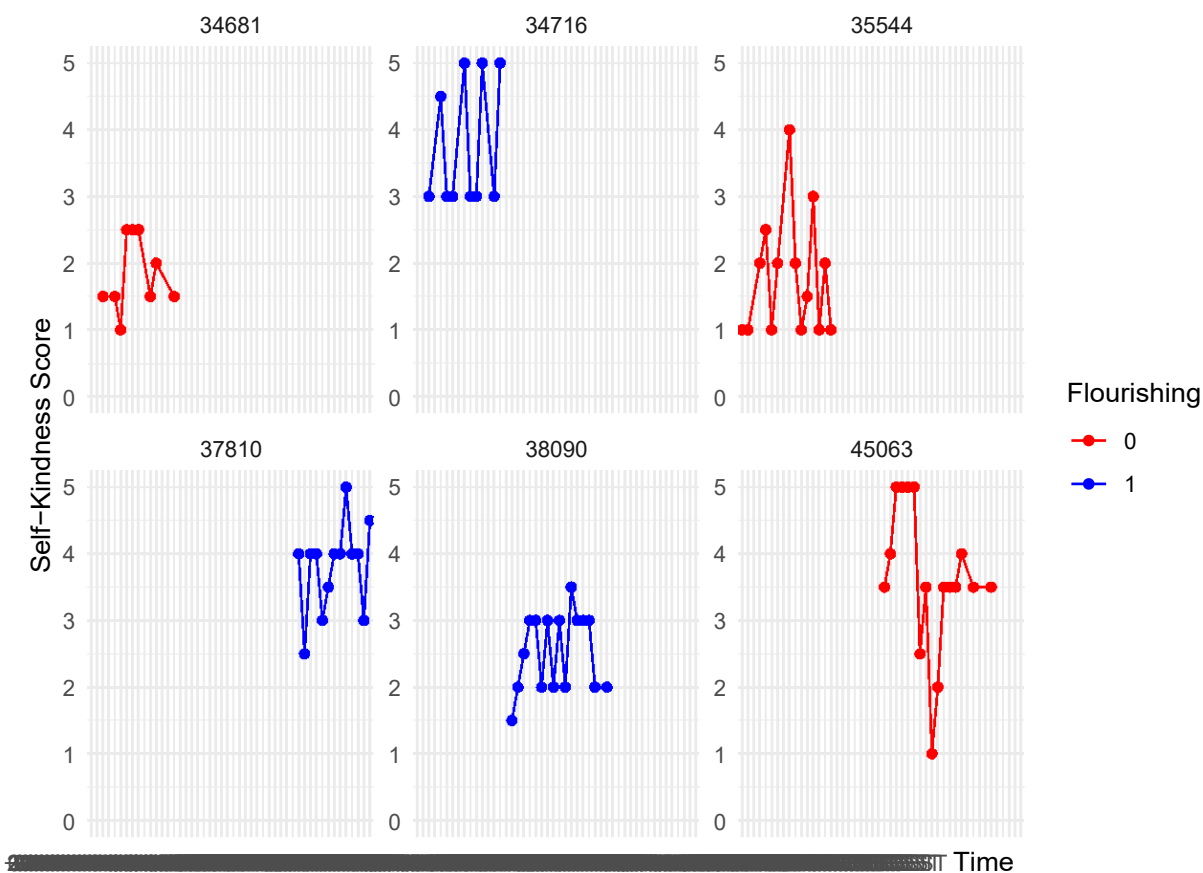
Interaction Effect between Time and Flourishing on Self-kindness

The interaction between flourishing and time was found to be significant for the evening ($b = 1.06$, $SE = 0.26$, $t(216.18) = 4.04$, $p < .001$), as displayed in Table 1. This indicates that the relationship between flourishing and self-kindness scores was stronger in the evening compared to other times of the day. Specifically, for each unit increase in flourishing, participants reported a 1.06 unit increase in self-kindness scores in the evening, controlling for time of day. The effect size was large (Cohen's $d = 0.87$). However, the hypothesis of the current study needs to be rejected as the effect of flourishing on self-kindness was not significant.

Figure 2 visualizes the self-kindness scores over seven days for three flourishers and three non-flourishers. Although the graphs show slightly higher scores of self-kindness for flourishers compared to non-flourishers, this difference was only significant for the evening.

Figure 2

Fluctuation of Self-kindness in three Flourishers and three Non-Flourishers over seven Days.



Note. Different number of measurement points per participant. 0 indicating Non-Flourishers and 1 indicating Flourishers.

Discussion

The aim of this study was to investigate the fluctuation of self-kindness in flourishers and non-flourishers over the course of seven days. In line with previous literature, results of the LM analysis showed that flourishers had higher levels of self-kindness at baseline than non-flourishers. Moreover, results of the LMM analysis found self-kindness fluctuating, more strongly within than between participants, but with no significant difference between

flourishers and non-flourishers. More specifically, participants reported lower self-kindness scores in the morning, irrespective of the flourishing status. Additionally, flourishers did score significantly higher on self-kindness in the evening than non-flourishers.

Self-kindness and Flourishing

The present study found self-kindness fluctuating over time, with greater variability within than between persons. Surprisingly, no significant differences in self-kindness between flourishers and non-flourishers were found. This unexpected finding could be attributed to the small sample size, which limited statistical power, as only four participants were identified as flourishers. However, previous studies found similar proportions of flourishing individuals in larger samples (Howell, 2009; Huppert & So, 2009), suggesting that the small sample size remains a significant limitation. Moreover, fluctuations in self-kindness may be influenced by factors beyond the flourishing status. This might be situational events, such as stressful situations or other personal characteristics like resilience to stress. Since Neff et al. (2007) found self-compassion varying during the day, with lower levels during stressful events and higher levels during positive events, it seems plausible that fluctuations in the current study are caused by daily stressors as well. The results of the current study highlight the dynamic nature of self-kindness during a day and the need to consider variables, such as daily stressors or resilience in future research.

Self-kindness and Time

Within the current sample, participants reported significantly lower self-kindness scores in the morning compared to other times of the day, irrespective of their flourishing status. This finding suggests the influence of other contextual factors on self-kindness or potential limitations due to the small sample size. Examining the items used to measure self-kindness reveals that participants assessed their level of understanding, patience, and self-care within the last hour. It is possible that completing the morning questionnaire shortly after waking up limited participant's opportunities to actively engage in self-kindness behaviours.

The adjustment of items to *during the last hour* was based of the methodology employed by Li et al. (2019), who also examined the fluctuation of self-compassion across different days and its correlation with daily perceived stress. While Li et al. (2019) assessed self-compassion once a day, the present study assessed self-kindness three times daily. It is worth considering that this adjustment might not be suitable for assessing the fluctuation within a single day. Therefore, future research should consider alternative measurement approaches for self-kindness in the context of ESM studies.

Self-kindness, Time, and Flourishing

Flourishers reported significant higher self-kindness scores in the evening compared to non-flourishers. This difference could be attributed to several factors. Firstly, flourishers tend to experience more positive events during the day (Keyes, 2002; Neff et al., 2007). The engagement in activities that enhance positive emotions, receiving praise, and accomplishing goals contributes to a sense of fulfillment and self-worth, leading to a positive mood and higher self-kindness (Satici et al, 2013; Akin & Akin, 2015). Secondly, flourishers have higher levels of well-being, which is associated with positive mood and positive functioning (Keyes, 2002; Howell, 2009). This improved sense of well-being enables flourishers to develop a greater appreciation for their strengths and positive qualities, enhancing their self-compassion and capacity for self-kindness (Verma & Tiwari, 2017). Thirdly, flourishers have effective coping strategies and resilience, which may foster self-kindness in the evening (Li et al., 2019). They reframe negative events and remain a positive mindset even though they experience difficult situations. The effective coping allows to maintain self-kindness despite possible challenges (Neff et al., 2007; Stallman et al., 2018). Due to student's susceptibility to daily stressors, enhancing student well-being and promoting flourishing are vital. Resilience and coping strategies are important factors to investigate further in relation to self-kindness, flourishing, and well-being in students.

Strengths and Limitations

Highlighting the strengths of the current study, the study design was beneficial for investigating the different patterns of self-kindness, using a longitudinal ESM design. The current study contributes to the field of ESM through the examination of within-person fluctuations in self-kindness. Unlike previous cross-sectional studies (e.g. Akin & Akin, 2015; Satıcı et al. 2013; Stallman et al. 2018; Verma & Tiwari, 2017), this longitudinal design captures real-time data, providing insights into the dynamic nature of self-kindness. By addressing the limited understanding of fluctuations in self-kindness and their implications for well-being, this study extends the existing literature on self-compassion. Furthermore, a high Cronbach's alpha for the SCS-SF as well as the MHC-SF indicate good reliability within the current study.

Nevertheless, the study is limited in several ways and the results need to be interpreted with caution. The small sample size ($N = 18$) reduces the statistical power and leads to a not representative sample of the general student population. One reason for the not representative sample is the imbalanced gender ratio, with 66.7% of the sample being female and only 33.3% being male. It might be that there are gender differences in self-kindness and flourishing. In addition, the flourishing group consisted in total of only four participants, which is not well representative and highlights the small sample size. Next to that, there was a high rate of missing data, which provides an incomplete picture of the variables being measured. Due to the time-consuming data collection three times daily, participants were less concerned to fill out the daily questionnaires. Moreover, the current study did not take other variables which might interact with self-kindness into account. Meaning that the current study design did not measure for potential interaction or moderation of other factors that influence self-kindness and flourishing. Additionally, participants experienced some technical issues when using the Ethica application. 5 participants did not receive the informed consent and were therefore excluded from data analysis which further reduced the sample size. These

issues can be avoided in future research with a more careful pilot testing of the Ethica application.

Future Implications

Considering the limitations of the current study, future research should address them by striving for a larger sample size. This could be achieved through increased advertisement of the study, utilising social media platforms, or expanding the target group and include students from other universities, different age ranges, or diverse language backgrounds. Furthermore, future research should incorporate variables related to situational factors, such as stressful events, individual abilities like resilience or coping strategies, and social support to better comprehend the fluctuation of self-kindness and its contextual dynamics. Including these variables will offer valuable insights into the complex interplay of self-kindness with other factors. Such research will facilitate the development of personalised interventions to enhance self-kindness and well-being across diverse settings and contexts. Regarding the research design, longitudinal studies with expanded time spans may give more insight into the stability and variability of self-kindness. Collecting data over several weeks, months, or years would allow the identification of potential pattern or trends in self-kindness more in detail. It can be considered to collect data once a day to reduce the data loss. Moreover, it is recommended to measure self-kindness in a different way. It might be that the adjustment towards the indication *during the last hour* is not appropriate. Therefore, other formulations or different self-kindness scales should be considered for assessing self-kind behaviour appropriate. Lastly, most of available literature, including the current study, investigated a sample of university students. Other age groups might be interesting to check whether the observed effect hold true across different populations and contexts. Nevertheless, it might be interesting to investigate the above within a representative student sample.

Conclusion

In conclusion, the results demonstrated that people who are flourishing also possess significantly higher levels of self-kindness at baseline. Although daily fluctuations over a seven-day period did not show differences between flourishers and non-flourishers, the results showed that self-kindness fluctuates more within than between participants. More concretely, self-kindness was observed to be significantly lower in the morning, irrespective of the flourishing status. Additionally, flourishers reported significantly higher scores in the evening than non-flourishers. Since students are highly prone to stress, the relation between flourishing, self-kindness, and resilience might be interesting. As the sample size was too small to warrant any firm conclusions, future research should strive for a larger sample. Further, the consideration of additional variables is of interest for understanding the complex dynamics of self-kindness and its relation to other factors. Still, the current study highlights the dynamic facet of self-kindness.

References

- American College Health Association. (2019). National College Health Assessment II: Undergraduate Student Reference Group Executive Summary Spring 2019. Hanover, MD: American College Health Association.
- Akin, A., & Akin, U. (2015). Examining the predictive role of self-compassion on flourishing in Turkish university students. *Anales de Psicología*, *31*(3), 802-807.
<http://dx.doi.org/10.6018/analesps.31.3.192041>
- Curran, P. J., & Bauer, D. J. (2011). The Disaggregation of Within-Person and Between-Person Effects in Longitudinal Models of Change. *Annual Review of Psychology*, *62*, 583-619. <https://doi.org/10.1146/annurev.psych.093008.100356>
- Eisenberg, D., Golberstein, E., & Gollust, S. E. (2007). Help-seeking and access to mental health care in a university student population. *Medical Care*, *45*(7), 594-601.
- Hofmann, S. G., Grossman, P., & Hinton, D. E. (2011). Loving-kindness and compassion meditation: Potential for psychological interventions. *Clinical Psychology Review*, *31*(7), 1126-1132. <https://doi.org/10.1016/j.cpr.2011.07.003>
- Howell, J. A. (2009). Flourishing: Achievement-related correlates of students' well-being. *The Journal of Positive Psychology*, *4*(1), 1-13.
<https://doi.org/10.1080/17439760802043459>
- Huppert, F. A., & So, T. T. C. (2009). What percentage of people in Europe are flourishing and what characterises them? *Well-Being Institute, University of Cambridge*.
- Keyes, C.L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of health and social behavior*, 207-222. <http://dx.doi.org/10.2307/3090197>
- Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist*, *62*(2), 95–108. <https://doi.org/10.1037/0003-066x.62.2.95>

- Keyes, C.L., Wissing, M., Potgieter, J.P., Temane, M., Kruger, A., & van Rooy, S. (2008). Evaluation of the mental health continuum-short form (MHC-SF) in Setswana speaking South Africans. *Clinical Psychology and Psychotherapy*, *15*(3), 181-92. <https://doi.org/10.1002/cpp.572>.
- Larson, R., & Csikszentmihalyi, M. (2014). Flow and the Foundations of Positive Psychology. *Springer*. <https://doi.org/10.1007/978-94-017-9088-8>
- Li, Y., Deng, J., Lou, X., Wang, H., & Wang, Y. (2020). A daily diary study of the relationships among daily self-compassion, perceived stress and health-promoting behaviours. *International Journal of Psychology*, *55*(3), 364-372. <https://doi.org/10.1002/ijop.12610>
- MacBeth, A., & Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review*, *32*, 545-552. <https://doi.org/10.1016/j.cpr.2012.06.003>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*(4), 370–396. <https://doi.org/10.1037/h0054346>
- Neff, K. D. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, *2*, 85-101. <https://doi.org/10.1080/15298860309032>
- Neff, K. D. (2011). Self-compassion, self-esteem, and well-being. *Social and Personality Compass*, *5*(1), 1–12. <http://dx.doi.org/10.1111/j.1751-9004.2010.00330.x>
- Neff, K. D., Kirkpatrick, K. L., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality*, *41*(1), 139-154. <https://doi.org/10.1016/j.jrp.2006.03.004>
- Raes, F, Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-Compassion Scale. *Clinical Psychology & Psychotherapy*, *18*(3), 250-255. <https://doi.org/10.1002/cpp.702>

- Satici, S. A., Uysal, R., & Akin A. (2013). Investigating the Relationship between Flourishing and Self-compassion: A Structural Equation Modelling Approach. *Psychologica Belgica*, 53(4), 85-99. <http://dx.doi.org/10.5334/pb-53-4-85>
- Stallman, H. M. (2010). Psychological distress in university students: A comparison with general population data. *Australian Psychologist*, 45(4), 249-257. <https://doi.org/10.1080/00050067.2010.482109>
- Stallman, H. M., Ohan, J. L., & Chiera, B. (2018) The Role of Social Support, Being Present, and Self-kindness in University Student Psychological Distress. *Australian Psychologist*, 53(1), 52-59. <http://dx.doi.org/10.1111/ap.12271>
- Verma, Y., & Tiwari, G. (2017). Self-Compassion as the Predictor of Flourishing of the Students. *International Journal of Indian Psychology*, 4(3). <http://dx.doi.org/10.25215/0403.122>
- Zessin, U., Dickhäuser, O., & Garbade, S. (2015). The relationship between self-compassion and well-being: A meta-analysis. *Applied Psychology: Health and Well-Being*, 7(3), 340-364. <http://dx.doi.org/10.1111/aphw.12051>