Development and validation of the Single-Item Mindfulness Scale (SIMS)

Brian P. Meier[1], Sara Konrath[2], Adam K. Fetterman[3], Amanda J. Dillard[4], Carrie James[5], Emily

Weinstein[5], & Brad J. Bushman[6]

[1]Gettysburg College, Gettysburg, PA (U.S.); Corresponding author: bmeier@gettysburg.edu;

717-337-8932

[2]Indiana University, Indianapolis, IN (U.S.)

[3]University of Houston, Houston, TX (U.S.)

[4]Grand Valley State University, Allendale, MI (U.S.)

[5]Project Zero, Harvard Graduate School of Education, Cambridge, MA (U.S.)

[6]The Ohio State University, Columbus OH (U.S.)

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Ethics Approval

All procedures performed in the studies involving human participants were in accordance with

the ethical standards of the institutional and/or national research committee and with the 1964

Helsinki declaration and its later amendments or comparable ethical standards. The studies were

approved by the Institutional Review Boards at the institutions of the corresponding author for

each study.

Competing Interests

The authors do not have any financial/non-financial interests to disclose.

Informed Consent

Informed consent was obtained from all participants included in the studies.

Data Availability

The data for Study 6 are available by contacting the second author. The data for the remaining

studies (in SPSS or Excel format) are available at the following website:

https://osf.io/3jnts/?view_only=bb87ffcecb6248809dceb95c84b6d172.

Abstract

Mindfulness is a focused attention to and acceptance of present experiences. Although several reliable and valid multi-item measures of trait mindfulness exist, researchers may sometimes want a short and quick measure of mindfulness. In this project, we developed and validated the Single-Item Mindfulness Scale (SIMS) to assess trait mindfulness. We conducted eight studies involving 3,125 adult and adolescent participants. The studies consisted of cross-sectional, short longitudinal, and daily diary designs. We first developed the wording of the SIMS in Studies 1 and 2 and then examined the validity and reliability in Studies 3-8. The SIMS was found to be reliable and valid. It correlated with several multi-item measures of mindfulness at effect sizes in the medium to large range. It also correlated in expected ways with variables known to be related to existing multi-item measures of mindfulness such as self-compassion, anxiety, negative affect, positive affect, depression, neuroticism, empathy, prosocial behavior, and self-consciousness. Furthermore, it correlated positively with daily reports of mindfulness in a two-week diary study. Although existing multi-item trait mindfulness scales should be used, when possible, the SIMS is recommended in situations when time, question quantity, or researcher focus is constrained.

Key words: mindfulness; scale; single-item; trait mindfulness; measurement; questionnaire

Development and validation of the Single-Item Mindfulness Scale (SIMS)

Mindfulness is a focused attention to and acceptance of present experiences (Brown et al., 2007; Goodman et al., 2015). More mindful people focus on the moment and allocate less attention to the past or future. Importantly, people high in mindfulness experience the present with less judgment and evaluation.

Mindfulness is associated with several positive mental and physical health outcomes as well as interpersonal factors (Brown et al., 2007; Felver et al., 2016; Goodman et al., 2021; Lindsay et al., 2018; Meier et al., 2017; Shomaker et al., 2019). For example, mindfulness positively relates to positive affect, self-control, empathy, and pro-social behavior and negatively relates to negative affect, anxiety, and depression (Berry et al., 2018; Hafenbrack et al., 2020; Himichi et al., 2021; Brown et al., 2007; Keng et al., 2011). Mindfulness is therefore an important variable when considering a number of intrapersonal and interpersonal outcomes.

Mindfulness is typically conceptualized as a trait, although it is sometimes measured as a state as well (Brown et al., 2007; Lau et al., 2006; Sauer et al., 2013). Several reliable and valid trait mindfulness measures exist (Sauer et al., 2013). These multi-items scales (e.g., 12 items, 15 items, 39 items, etc.) assess mindfulness as a single factor (e.g., Mindfulness Attention Awareness Scale, MAAS, Brown & Ryan, 2003) or as multiple factors (e.g., Five-Facet Mindfulness Questionnaire, FFMQ, Baer et al., 2006). These scales are widely used. For example, as of 2022, the MAAS has been cited over 15,000 times and the FFMQ has been cited over 8,000 times (Google Scholar).

The MAAS (Brown & Ryan, 2003), the FFMQ (Baer et al., 2006), and other mindfulness scales (e.g., Cognitive and Affect Mindfulness Scale-Revised, CAMSR, Feldman et al., 2007) are critical tools for researchers interested in examining the correlates and outcomes of

mindfulness. Yet, at times, researchers may need scales with fewer items. In some cases, researchers are interested in collecting data from a lot of people in a short amount of time (e.g., data collection using crowdsourcing websites, mobile phones, or social media). Furthermore, there may be other situations in which a trait like mindfulness is of interest, but not the primary focus of a study. In such cases, researchers might use short measures such as single-item trait scales. Single-item scales are "quick and dirty" and are useful in a host of contexts. Several single-item trait scales have been validated to assess traits such as narcissism (Konrath et al., 2014), empathy (Konrath et al., 2018), and self-esteem (Robins et al., 2001).

Researchers interested in the various factors of trait mindfulness or who want a comprehensive measure of mindfulness should use existing multi-item scales such as the ones mentioned above. Yet, a single-item trait mindfulness scale, if found to be reasonably reliable and valid, might be an alternative that can be used in situations in which a longer scale is not feasible. A single-item scale takes seconds to complete and opens up the possibility of studying trait mindfulness in new situations.

Overview of Studies

Our goal was to develop and validate a single-item mindfulness scale (SIMS) that assesses trait mindfulness. We sought to create and validate the SIMS in a manner similar to other single-item scales (Konrath et al., 2014, 2018). First, we developed the wording of the SIMS and examined how it related to other widely used trait mindfulness scales in Studies 1-4. Next, we examined the test-retest reliability of the SIMS and its criterion validity by assessing other measures known to relate to mindfulness in Studies 5 and 6. In Study 7, we assessed how well the SIMS predicted daily reports of mindfulness in comparison to longer mindfulness scales in a two-week daily diary study. Finally, in Study 8, we provided age, gender, and race norms for

the SIMS in terms of the means, standard deviations, and frequency of responses from a large and national representative sample of U.S. adults. We present similar studies together.

Data and Sample Size Statements

The data for Study 6 are available by contacting the second author. The data for the remaining studies (in SPSS or Excel format) are available at the following website:

https://osf.io/3jnts/?view_only=bb87ffcecb6248809dceb95c84b6d172.

All studies presented in this paper were part of larger data collection sessions that involved multiple tasks and questionnaires. The number of participants in each study differs for various reasons related to the larger data-collection goals of each study. However, we aimed to have enough participants in each study to reach approximately 80% statistical power to find a correlation coefficient of at least .20, an effect size in between small and medium (Aron et al., 2013). The sample size required was 193 participants (Faul et al., 2009). All studies but two met this goal. Study 1 includes 174 participants. We originally sought to collect data from approximately 200 participants, but this study had to be stopped short because it was conducted in the Spring of 2020 when the COVID-19 pandemic began. Study 7 includes 162 participants. We again sought to collect data from approximately 200 participants, but we did not meet this goal given the challenging nature of collecting data in a two-week daily diary study.

Studies 1 and 2

In Studies 1 and 2, we developed the wording of the SIMS and determined how well it correlated with existing multi-item trait mindfulness measures. Study 1 was conducted with an in-person sample and Study 2 was conducted with an online sample. Study 1's data were collected at the end of a study session focused on religion and self-control. Study 2's data were

collected as part of a large data-collection session focused on mental health, COVID-19, and mindfulness (Dillard & Meier, 2021).

Method

Participants

  Study 1. We recruited 174 participants from the Gettysburg College student body. Participants earned course credit in their introduction to psychology class. The participants (self-identified in an opened-ended question as 108 females, 64 males, 1 cis female, & 1 missing a gender response) had a mean age of 18.85 ($SD = 1.18$) years. Most participants self-identified in an open-ended question as White or Caucasian ($n = 124$), and the remaining participants self-identified as Asian ($n = 18$), Multi-racial ($n = 9$), Black or African American ($n = 7$), Hispanic ($n = 7$), and other individual options ($n = 9$).

  Study 2. We recruited 300 participants from Prolific.co, which is a crowdsourcing website with tens of thousands of participants used in marketing and behavioral research. Participants were located in the United States (U.S.), listed English as their first language, and had U.S. nationality. The entire data-collection session took most individuals between 15-20 minutes to complete. Participants were compensated $10.48 per hour for completing the session (which amounted to $2.50 to $3.60 per participant). The participants (self-identified in a choice question as 124 females, 174 males, 1 other, & 1 missing a gender response) had a mean age of 35.66 ($SD = 10.05$) years. Most participants self-identified in a choice question as White or Caucasian ($n = 218$), and the remaining participants self-identified as Asian ($n = 27$), Black or African American ($n = 22$), Hispanic or Latino ($n = 20$), Other ($n = 9$), American Indian or Alaskan Native ($n = 3$), and missing a race response ($n = 1$).

Materials and Procedure

SIMS. We modeled the SIMS after past widely used and validated single-item scales (Konrath et al., 2014, 2018). We brainstormed various options and came up with five potential items that were based upon definitions of mindfulness found in the literature (e.g., Brown & Ryan, 2003; Brown et al., 2007) and past multi-item mindfulness scales. We sought to identify the one item that best correlated with existing mindfulness measures. In Studies 1 and 2, participants completed all five items. The five items and the response scale are shown here:

1 = Not at all
2
3
4 = Moderately agree
5
6
7 = Strongly agree

1. **Potential SIMS 1**: To what extent do you agree with this statement: "I am a mindful person." (Note: a mindful person pays attention to the present, is less concerned about the past or future, and accepts things as they are).
2. **Potential SIMS 2:** To what extent do you agree with this statement: "I often find myself fully in the moment, accepting it as it is."
3. **Potential SIMS 3:** To what extent do you agree with this statement: "I try to notice and accept what's going on right now, instead of the past or future."
4. **Potential SIMS 4:** To what extent do you agree with this statement: "I try to be present, pay attention to the moment, and accept things as they are."
5. **Potential SIMS 5:** To what extent do you agree with this statement: "I am often aware of myself, others, and my environment, and I accept things as they are."

Mindfulness Scales. We identified multiple frequently cited trait mindfulness scales: The 15-item Mindful Attention Awareness Scale (MAAS, Brown & Ryan, 2003), the 39-item and five factor Five-Facet Mindfulness Questionnaire (FFMQ, Baer et al., 2006), and the 12-item Cognitive and Affective Mindfulness Scale-Revised (CAMSR, Feldman et al., 2007). In Study 2 only, we also examined the 13-item Toronto Mindfulness Scale (TMS, Lau et al., 2006). This scale is used to measure state mindfulness whereas the other scales measure trait mindfulness, which is what we focused on with the eventual SIMS.

Participants in Study 1 completed the MAAS (e.g., *"I could be experiencing some emotion and not be conscious of it until some time later"*) using a 1 (Almost Never) to 6 (Almost Always) scale and the FFMQ (e.g., *"When I'm walking, I deliberately notice the sensations of my body moving"*) using a 1 (Never or Very Rarely True) to 5 (Very Often or Always True) scale. Participants in Study 2 completed the CAMSR (e.g., *"It is easy for me to concentrate on what I am doing"*) using a 1 (Rarely/Not at All) to 4 (Almost Always) scale and the TMS (e.g., *"Now, and in the last several minutes, I experienced myself as separate from my changing thoughts and feelings"*) using a 0 (Not at All) to 4 (Very Much) scale. We created average scores for all scales after reverse scoring the negatively worded items. Higher scores are reflective of higher mindfulness.

Subjective Wellbeing Measures. Participants also completed various measures of subjective wellbeing in Study 2. We included these measures for the larger purpose of that data-collection session (i.e., mental health and COVID-19; Dillard & Meier, 2021). Because mindfulness has been shown to be indicative of positive mental health (Brown et al., 2007), we included analyses of these measures here. The measures are shown below:

- The Perceived Stress Scale (PSS, Cohen et al., 1983). The PSS has 10 items that have individuals report the extent to which their lives have been unpredictable and overloaded during the previous month (e.g., *"In the last month, how often have you felt nervous or stressed?"*). Participants indicated the frequency they felt this way using a 0 (Never) to 4 (Very Often) scale. We created an average score after reverse scoring negatively worded items. Higher scores are reflective of higher perceived stress.

- State Anxiety. Five state anxiety items were adapted from the State and Trait Anxiety Inventory (Spielberger et al., 1983). Participants reported how they felt right now using a 1

(Not at All) to 4 (Very Much So) scale. The items were *"I feel calm", "I feel tense", "I feel*

nervous", "I am presently worrying over misfortunes" and *"I am jittery"*. We created an

average score across the five items after reverse scoring the negatively worded item. Higher

scores are reflective of higher state anxiety.

- Depressive Symptoms. Participants completed five questions about depressive symptoms

  adapted from the health status and quality of life measure SF-36 (Ware & Sherbourne,1992).

  The items were *"During the past four weeks, how much of the time have you felt so down in*

  the dumps that nothing could cheer you up?", "...how much of the time have you been a

  happy person?", "...how much of the time have you felt downhearted and blue?, "...how

  much of the time did you have a lot of energy?," and *"...how much of the time did you feel*

  worn out?" All questions were answered using a 1 (All of the time) to 6 (None of the Time)

  scale. We created an average score after reverse scoring the negatively worded items. Higher

  scores are reflective of higher depressive symptoms.

In Study 1, participants completed the potential SIMS items, the FFMQ, and the MAAS

in that order amongst other measures. In Study 2, participants completed the wellbeing measures,

the CAMSR, the potential SIMS items, and the TMS in that order amongst other measures.

Participants also completed demographic questions in each study and were debriefed at the end

of each study.

Results and Discussion

The means, standard deviations, and reliabilities for the scales are in Tables 1 and 2. The

correlations among the variables in each study are in Tables 3 and 4. The potential SIMS items

were significantly positively related to existing trait and state mindfulness scales (MAAS,

FFMQ, CAMSR, TMS) with effect sizes in the medium to large range (Aron et al., 2013). The

correlation values are reasonable in size and coincide with research on other single-item scales (Konrath et al., 2014, 2018). In terms of individual facets of mindfulness, the potential SIMS items are more related to the acting with awareness, nonjudging, and nonreactivity aspects of mindfulness, than the describing aspects of mindfulness. Furthermore, the potential SIMS items correlated modestly with the measures of wellbeing, but less strongly than the existing CAMSR measure.

Overall, Studies 1 and 2 reveal that a single-item trait mindfulness measure has merit. Although all five potential SIMS items had somewhat similar relations with existing mindfulness measures, item one had the highest correlations with two very often used measures, the MAAS and the FFMQ. Furthermore, the wording of item 1 is most consistent with past work on single-item scales (Konrath et al., 2014, 2018). Therefore, we chose this item to represent the SIMS.

We present the SIMS formally in the Appendix, and we used this item in the remaining studies. The SIMS has a Flesch-Kincaid grade level readability score of 7.30 (https://app.readable.com/text/).

Studies 3 and 4

In Studies 3 and 4, we examined the replicability of the significant correlations we found in Studies 1 and 2 between the SIMS and existing trait mindfulness scales. Studies 3 and 4 were part of larger data-collection sessions involving research on stereotypes and attention. The mindfulness data were collected at the end of each session.

We also present data on the SIMS by gender and age in the remaining studies simply for descriptive purposes (we did not expect any particular effects for gender and age).

Method

Participants

Study 3. We recruited 425 participants from Prolific.co. Of those, 390 participants provided complete data. Participants were in the U.S., listed English as their first language, and had U.S. nationality. Because of the larger purpose of the data-collection session, which was to examine attractiveness stereotypes as they vary by race, we only recruited participants who identified as White or Caucasian according to Prolific's prescreen criteria.

The entire data-collection session took approximately 15 minutes to complete. Participants earned $2.00 for completing the session. The participants (self-identified in an open-ended question as 199 females, 180 males, 8 non-binary, 1 gender queer, 1 a gender, & 1 missing a gender response) had a mean age of 35.38 ($SD = 13.35$) years.

Study 4. We recruited 201 participants from the Gettysburg College student body. Participants earned course credit in their introductory to psychology class or $10 for completing the entire data-collection session in a psychology laboratory. The participants (self-identified in a choice question as 131 females, 69 males, & 1 non-binary) had a mean age of 20.50 ($SD = 5.55$) years. Most participants self-identified in a choice question as White or Caucasian ($n = 141$), and the remaining participants self-identified as Hispanic or Latino ($n = 25$), Asian or Pacific Islander ($n = 19$), Black or African American ($n = 9$), Multi-racial ($n = 5$), and other individual options ($n = 2$).

Materials and Procedure

SIMS. Participants in both studies completed the SIMS.

Mindfulness Scales. Participants in Study 3 completed the FFMQ (Baer et al., 2006) and participants in Study 4 completed the MAAS (Brown & Ryan, 2003) and the CAMSR (Feldman et al., 2007).

In both studies, the order of the mindfulness measures was randomly assigned. Participants also completed demographic questions in each study and were debriefed at the end of each study.

Results and Discussion

The means, standard deviations, and alphas for the scales are in Table 5. In Study 3, males (M = 4.52; SD = 1.41) and females (M = 4.37; SD = 1.44) had similar scores on the SIMS, $t(377)$ = 1.06, p = .289, d = 0.11. Also, in Study 3, age was not significantly related to scores on the SIMS, $r(388)$ = .08, p = .127. In Study 4, males (M = 4.07; SD = 1.31) and females (M = 4.05; SD = 1.23) had similar scores on the SIMS, $t(198)$ = .14, p = .887, d = 0.02. Also, in Study 4, age was not significantly related to scores on the SIMS, $r(181)$ = .10, p = .161 (note: some participants did not report an age).

The correlations among the variables in each study are in Tables 6 and 7. The SIMS was again significantly positively related to existing trait mindfulness scales. The correlations were similar in size to the correlations found in Studies 1 and 2 although the SIMS appears to correlate more strongly with the FFMQ total score and the CAMSR compared to the MAAS. Also, in Study 3, the SIMS correlated significantly with the describing subscale of the FFMQ, which it did not in Study 1. As in Studies 1 and 2, Studies 3 and 4 point to the validity of a single-item mindfulness scale. We provide additional evidence for validity in the remaining studies.

Study 5

We focused on three goals in Study 5. First, we assessed, again, the replicability of the relationships between the SIMS and existing trait mindfulness scales. Second, we investigated the test-retest reliability of the SIMS over a two-week interval, which appears to be a common interval for single-item measures (Konrath et al., 2014, 2018). Finally, we evaluated how well

the SIMS correlates with constructs known to be related or unrelated (criterion and discriminant

validity) to trait mindfulness in past work.

Method

Participants

We recruited 222 participants from the Gettysburg College student body. Of those, 194

participants provided complete data from both Times 1 and 2. Participants earned course credit

in their introduction to psychology class for completing the study. The participants (self-

identified in an opened-ended question as 118 females, 75 males, & 1 gender queer) had a mean

age of 18.99 (SD = 1.19) years. Most participants self-identified in an open-ended question as

White or Caucasian (n = 137), and the remaining participants self-identified as Black or African-

American (n = 14), Multi-racial (n = 14), Hispanic or Latino (n = 12), Asian (n = 11), American

Indian (n = 1), other (n = 2), and missing a race response (n = 3), .

Materials and Procedure

SIMS. Participants completed the SIMS at both Times 1 and 2.

Mindfulness Scales. Participants completed the MAAS (Brown & Ryan, 2003) and the

CAMSR (Feldman et al., 2007) at Times 1 and 2.

Other Scales. Participants in Study 5 also completed other scales, which allowed us to

examine criterion and discriminant validity of the SIMS in comparison to the existing

mindfulness scales. They only completed these scales at time 1. We created average scores for

each scale after reverse scoring the negatively worded items (if necessary). The scales are

described below:

- The Brief Self-Control Scale (Tangney et al., 2004). This measure is a 13-item scale that has

    individuals report the extent to which they exert self-control in various aspects of their lives

(e.g., *"I am good at resisting temptation"*). Participants indicated the extent to which each statement reflects who they are using a 1 (Not at All) to 5 (Very Much) scale. Higher scores are reflective of higher self-control. We expected self-control to positively correlate with the mindfulness scales (e.g., Bowlin & Baer, 2012; Brown et al., 2007).

- Mini IPIP-Scales. Participants completed the Mini IPIP-Scales, which assess the Big-5 personality traits (openness, conscientiousness, extraversion, agreeableness, & neuroticism) with 20 statements (e.g., *"am the life of the party"*; Donnellan et al., 2006). Participants indicated the extent to which each statement describes them using a 1 (Very Inaccurately) to 5 (Very Accurately) scale. Higher scores are reflective of higher levels of each trait. We expected neuroticism (negatively related) and conscientiousness (positively related) to be the strongest factors related to the mindfulness scales (e.g., Hanley & Garland, 2017).

- Positive and Negative Affect. Participants completed 20 items from the Positive and Negative Affect Schedule (Watson et al., 1988). These items (e.g., *"interested,"* or *"distressed"*) assess positive and negative affect. Participants were asked to report how they feel in relation to each item in general using a 1 (Very Slightly or Not at All) to 5 (Extremely) scale. Higher scores are reflective of higher positive or negative affect. We expected the mindfulness scales to positively relate to positive affect and negatively relate to negative affect (e.g., Brown et al., 2007).

- Self-Compassion. Participants completed the 12-item Self-Compassion Scale Short Form (Raes et al., 2011). This scale assesses self-compassion by having individuals rate how often they behave in a particular manner (e.g., *"When I fail at something important to me I become consumed by feelings of inadequacy"*) using a 1 (Almost Never) to 5 (Almost Always) scale.

Higher scores are reflective of higher self-compassion. We expected self-compassion to positively relate to the mindfulness scales (e.g., Neff & Dahm, 2015).

- Self-Consciousness. Participants completed the 22-item Self-Consciousness Scale Revised (Scheier & Carver, 1985). This scale assesses three factors of self-consciousness, private self-consciousness, public self-consciousness, and social anxiety. Participants rated how much each statement (e.g., *"I'm always trying to figure myself out"*) applies to them using a 1 (Not at All Like Me) to 4 (A Lot Like Me) scale. Higher scores are reflective of higher self-consciousness in each domain. We expected the three factors of self-consciousness to be negatively related to the mindfulness scales.

- Nature Relatedness. Participants completed the 6-item Brief Measure of Nature Relatedness Scale (Nisbet & Zelenski, 2013). This scale assesses people's feelings of being related to nature (e.g., *"My ideal vacation spot would be a remote, wilderness area"*) using a 1 (Disagree Strongly) to 5 (Agree Strongly) scale. Higher scores are reflective of higher perceived relation to nature. We did not expect the mindfulness scales to be associated with nature relatedness, which might provide some evidence for discriminant validity.

In Study 5, at time 1, participants completed the SIMS, MAAS, and CAMSR in a random order. Participants completed the remaining measures (and other measures not examined in this project). Two weeks later, participants received an email asking them to complete a second survey. The time 2 survey only included the mindfulness scales in a random order. The average number of days between time 1 and time 2 was 14.44 ($SD = 3.10$) days. Participants also completed demographic questions and were debriefed at the end of the study.

Results and Discussion

The means, standard deviations, and reliabilities for the scales assessed in Study 5 are in Table 8. Males ($M = 4.45$; $SD = 1.55$) had marginally higher scores on the SIMS at Time 1 than females ($M = 4.05$; $SD = 1.32$), $t(191) = 1.93$, $p = .055$, $d = 0.29$. Age was not significantly related to SIMS scores at Time 1, $r(170) = .03$, $p = .751$ (note: some participants did not report their age).

The correlations among Time 1 measures are in Table 9. The SIMS again positively correlated with the MAAS and CAMSR at medium to large effect size levels. Furthermore, the SIMS was positively related to the other variables in a similar manner as compared to the MAAS and CAMSR. The exceptions were with self-control and conscientiousness. The SIMS was not significantly correlated with these variables, while the MAAS and CAMSR were.

The test-retest correlations for the mindfulness scales were as follows: SIMS, $r = .60$, $p < .001$; MAAS, $r = .77$, $p < .001$; CAMSR, $r = .78$, $p < .001$.

Overall, Study 5 revealed that the SIMS was again correlated with existing mindfulness scales. The test-retest reliability across two weeks for the SIMS was lower than the test-retest reliability of the longer trait mindfulness scales. However, the SIMS test-retest value is in line with some other single-item trait measures such as the Single-Item Trait Empathy Scale (SITES), which had test-retest reliabilities across a similar timeframe ranging from .57 to .62 (Konrath et al., 2018). The SIMS was also related to other constructs known to be associated with mindfulness in a manner that was similar to the MAAS and CAMSR, at least in most cases.

Study 6

In Study 6, we again assessed the test-retest reliability of the SIMS, but this time in an adolescent sample over a two-week period. The data were collected as part of a larger project on empathy funded by the Mind and Life Institute. Therefore, while we examined how the SIMS

was related to some similar outcomes examined in the earlier studies, we were also able to examine more interpersonal outcomes such as empathy and prosocial behavior that were geared towards the purpose of the project on empathy. Past research has shown relationships between trait mindfulness and empathy and prosocial behavior (e.g., Berry et al., 2018; Himichi et al., 2021). We expected to find similar effects in Study 6. Finally, we examined how the SIMS might relate to social desirability.

Method

Participants

We recruited U.S. participants with the help of Qualtrics online panels, which is similar to Prolific.co. At Time 1, 648 participants provided complete data for the measures reported below, and at Time 2, 297 of these participants completed the SIMS an average of 14.86 days later ($SD = 5.76$). Baseline participants had a mean age of 15.88 ($SD = 1.15$) years, and self-identified as 400 males, 213 females, 31 non-binary/other, and 4 non-responses. Participants self-identified as Caucasian or White ($n = 289$), Black or African-American ($n = 148$), Asian ($n = 65$), Native American ($n = 10$), and Multiracial or Other ($n = 136$).

Materials and Procedure

SIMS. Participants completed the SIMS at both Times 1 and 2.

Self-Control. Participants completed a validated single-item measure of self-control (Wolff et al, 2022): *"How much self-control do you have?"* using a 1 (None at All) to 7 (Very Much) scale.

Mental and Physical Health. We also used validated single-item measures to assess participants' recent mental and physical health (DeSalvo et al, 2006): *"In the past 2 weeks, would you say your overall mental [physical] health was…"* using a 1 (Poor) to 5 (Excellent).

Empathy. Participants responded to six items from the Interpersonal Reactivity Index using a 1 (Does not Describe Me at All) to 5 (Describes me Very Well) scale (Davis, 1983). Three items assessed perspective taking, a form of cognitive empathy (e.g., "*Before criticizing somebody, I try to imagine how I would feel if I were in their place*") and three items assessed empathic concern, a form of emotional empathy (e.g., "*I often have compassionate feelings for people less fortunate than me*").

Prosocial Behavior and Community Involvement. Participants responded to nine items from the Youth Inventory of Involvement (Pancer et al, 2007), asking them about their formal prosocial behaviors (2 items: volunteering, donating), informal prosocial behaviors (2 items: visiting/helping struggling people, helping friends/classmates), community involvement (2 items: helping neighborhood/community, participating in religious group), and activism behaviors (3 items: writing a letter to a newspaper/public official, signing a petition, joining a protest) in the past year using a 1 (Not at All) to 5 (More than Once Per Month) scale.

Social Desirability. Participants also responded to six items from the Children's Social Desirability Scale (Miller et al, 2014). An example is: "*Are you always polite, even to people who are not very nice?*" using a yes (1) or no (0) scale. Scores were summed and ranged from 0 to 6.

Results and Discussion

The means, standard deviations, and reliabilities for the scales assessed are in Table 10. Males ($M = 4.55$; $SD = 1.45$) scored significantly higher on the SIMS at Time 1 than females ($M = 4.05$; $SD = 1.52$), $t(611) = 4.02$, $p < .001$, $d = 0.34$. Age was not significantly related to SIMS scores at Time 1, $r(648) = .02$, $p = .63$.

The correlations among Time 1 measures are in Table 11. For intrapersonal outcomes, the SIMS was positively related to self-control and mental and physical health. For interpersonal outcomes, those scoring higher on the SIMS also scored higher on empathic concern and perspective taking, and reported more frequent prosocial behaviors and community engagement. However, the SIMS was only marginally related to the frequency of activism behaviors. Finally, although the SIMS had a small positive correlation with social desirability ($r = .10$), the results described here remained similar when controlling for social desirability.

The test-retest correlation was moderate, indicating some stability in adolescents across a two-week period, $r(297) = .46, p < .001$.

Overall, Study 6 revealed that the SIMS again had a significant test-retest reliability across two weeks. Yet, it appears that the SIMS is more stable in adults compared to adolescents. The SIMS was also related to intrapersonal and interpersonal constructs known to be associated with mindfulness. In Study 6, the SIMS was positively and significantly related to self-control, unlike what was found in Study 5. Study 6 provides additional evidence of the validity and reliability of the SIMS, this time in an adolescent sample.

Study 7

In Study 7, we sought to determine if the SIMS could predict daily reports of mindfulness. We examined this question using a daily-diary procedure that had people report on their daily activities once a day for two weeks. Participants completed a battery of questionnaires including the SIMS, the MAAS (Brown & Ryan, 2003), and the CAMSR (Feldman et al., 2007) in an initial data-collection session. Then, participants completed up to 14 diary reports in which daily measures of mindfulness were assessed among other measures. We expected the SIMS to

predict daily mindfulness reports as well as the MAAS and CAMSR. Such findings would suggest that the SIMS is useful in predicting mindfulness at the daily level.

Method

Participants

We recruited 169 participants from the from the student bodies of Gettysburg College, Grand Valley State University, Indiana University, the Ohio State University, and the University of Houston. Of those, 158 provided complete data in the initial session and at least 2 daily reports ($M = 10.89$ reports). Participants earned $5 or 1 credit toward their psychology class for completing the initial session and $1 or 0.50 credit toward their psychology class for each daily survey that they completed (i.e., up to $20 or 8 credits). We distributed the money in the form of Amazon gift cards. The participants (self-identified in a choice question as 88 females and 70 males) had a mean age of 22.66 ($SD = 4.05$) years. Most participants self-identified in a choice question as Black or African American ($n = 84$), and the remaining participants self-identified as White or Caucasian ($n = 44$), Asian/Pacific Islander ($n = 16$), Hispanic or Latino ($n = 7$), Middle Eastern ($n = 2$), Native American ($n = 1$), or missing a race response ($n = 4$).

Materials and Procedure

SIMS. Participants completed the SIMS at the initial session. The mean was 4.66 ($SD = 1.21$).

Mindfulness Scales. Participants completed the MAAS (Brown & Ryan, 2003) and the CAMSR (Feldman et al., 2007) at the initial session. The mean for the MAAS was 3.92 ($SD = .81$) the alpha was .87, and the Omega was .91. The mean for the CAMSR was 2.61 ($SD = .30$), the alpha was .61, and the Omega was .67.

Daily Measures. Participants completed several items each evening for up to 14 days. However, due to a programming error in the daily surveys, participants only saw 2/3 of the survey questions randomly presented each day. Nevertheless, participants completed all three of the daily mindfulness items (see below) 7.03 times on average.

Three daily mindfulness items were included and were answered using a 1 (Strongly Disagree) to 5 (Strongly Agree) scale. We created these items for this study, and we modeled them after the SIMS given that the wording of the SIMS is focused on definitions of mindfulness found in past literature and scales: *"Today, I paid attention to my present experiences", "Today, I was not concerned about the past or future", "Today, I accepted things as they occurred".* The mean of the three daily mindfulness items was 3.51 ($SD = .56$) the alpha was .55, and the Omega was .70. We used this score as a measure of daily mindfulness.

In Study 7, at the initial session, participants completed the SIMS, MAAS, and CAMSR in a random order. Participants also completed many other questionnaires at the initial session and in the daily reports given that the session had a larger focus on metaphor and religion. Participants also completed demographic questions and were debriefed at the end of the study.

Results and Discussion

Males ($M = 4.71$; $SD = 1.08$) and females ($M = 4.39$; $SD = 1.36$) had similar scores on the SIMS, $t(156) = 1.65$, $p = .102$, $d = 0.26$. Age was positively related to scores on the SIMS, $r(156) = .22$, $p = .006$.

The SIMS was again significantly correlated with both the MAAS, $r(156) = .25$, $p = .002$, and the CAMS-R, $r(156) = .40$, $p < .001$. The MAAS and the CAMS-R were significantly correlated with each other, $r(156) = .27$, $p < .001$.

To assess whether the SIMS, MAAS, and CAMSR were correlated with daily reports of mindfulness, we conducted three multilevel models using the "lme" function from the "nlme" package in R (Pinheiro et al., 2020). We treated the SIMS, MAAS, and CAMSR as level 2 predictors with daily mindfulness as the criterion, and followed the guidelines for standard error specification (Barr et al., 2013). The MAAS was only marginally related to daily reports of mindfulness, $b = 0.05$, $t(155) = 1.71$, $p = .089$. The CAMSR was significantly positively related to daily reports of mindfulness, $b = 0.50$, $t(155) = 6.26$, $p < .001$. Importantly, the SIMS was also significantly positively related to daily reports of mindfulness, $b = 0.10$, $t(155) = 4.71$, $p < .001$.

Overall, Study 7, revealed that the SIMS predicted daily reports of mindfulness better than the MAAS, but not as well as the CAMSR. These results suggest that the SIMS can predict mindfulness reports in the daily realm.

Study 8

In our final study, Study 8, we sought to better determine the norms of the SIMS in terms of the means, standard deviations, and distribution of responses. We added the SIMS to a large data-collection project that was focused on COVID-19 vaccination intentions (Meier et al., 2022). A large generalizable sample based upon age, race, and gender in the U.S. was collected from Prolific.co. We also had single-item measures of trait empathy and trait narcissism.

Method

Participants

We recruited 1,072 participants from Prolific.co. We used Prolific's prescreening measures to recruit a sample that was generalizable to the U.S. population in terms of age, race, and gender. Of the original sample, 12 participants did not have data on race or gender. We removed these participants from the analysis. Participants were in the U.S., listed English as their

first language, and had U.S. nationality. The entire data-collection session took approximately 5 minutes to complete. Participants were given $0.67 for completing the session. The participants (543 females, 517 males) had a mean age of 45.36 ($SD = 16.21$) years. Participants race was as follows according to Prolific data using their labels: White ($n = 799$), Black ($n = 139$), Asian ($n = 71$), Mixed ($n = 27$), and other ($n = 24$).

Materials and Procedure

Participants completed various questions about the COVID-19 vaccine for the larger purpose of the data-collection session. Near the end of the questionnaire, they completed the SIMS. Participants also completed a single-item measures of trait narcissism that was answered on a 1 (not very true of me) to 7 (very true of me) scale (Konrath et al., 2014):

- To what extent do you agree with this statement: "I am a narcissist." (Note: The word "narcissist" means egotistical, self-focused, and vain.). The mean of this item was 2.07 ($SD = 1.31$).

Participants completed a single-item measure of trait empathy as well that was answered on a 1 (not very true of me) to 5 (very true of me) scale (Konrath et al., 2018):

- To what extent does the following statement describe you: ''I am an empathetic person.'' (Note: An empathetic person understands others' feelings, and experiences care and concern for them). The mean of this item was 4.15 ($SD = .92$).

Participants were debriefed at the end of the study.

Results and Discussion

The means, standard deviations, and distribution of responses for the SIMS are shown in Table 12 for the total sample and for the sample broken down by gender, race, and age. Males ($M = 4.88$; $SD = 1.43$) had higher scores on the SIMS than females ($M = 4.68$; $SD = 1.47$),

$t(1,058) = 2.31$, $p = .021$, $d = 0.14$. Age was marginally positively related to scores on the SIMS, $r(1,058) = .05$, $p = .077$.

The SIMS correlated positively with the single-item measure of trait empathy, $r(1,058) = .22$, $p < .001$, and negatively with the single-item measure of narcissism, $r(1,058) = -.14$, $p < .001$.

Study 8 provides a good estimation of the typical means, standard deviations, and distribution of responses for the SIMS given the large and generalizable sample. Furthermore, the SIMS was found to correlate positively with trait empathy, which coincides with the findings of the adolescent sample in Study 6.

General Discussion

In eight studies involving participants from multiple academic institutions and crowdsourcing websites ($N = 3,125$), we developed a single-item measure of trait mindfulness. The SIMS was found to be reliable and valid. Below, we provide a summary of results, recommendations for use of the SIMS, and some potential limitations.

Summary and Interpretation of Results

The SIMS correlated positively with three of the most frequently used multi-item measures of trait mindfulness at values that were in the medium to large range (rs = .24 to .51). Yet, the SIMS did not correlate consistently with at least one subscale of mindfulness assessed by the FFMQ (Baer et al., 2006). It was not significantly related to the describing factor in Study 2, but it was significantly related to the describing factor in Study 3. These inconsistent results suggest that the SIMS should be used cautiously when one is interested in the describing aspects of trait mindfulness. This factor from the FFMQ focuses on how well people believe they can verbalize their own emotions, sensations, and experiences.

The SIMS correlated more strongly with the total scores of the FFMQ (Baer et al., 2006) and CAMS-R (Feldman et al., 2007) compared to the MAAS (Brown & Ryan, 2003). The MAAS is somewhat more focused on the attentional aspects of mindfulness compared to the FFMQ and CAMS-R and it could be that the SIMS does not pick up on the attentional components of mindfulness as well as it does the affective and cognitive components. Additional research will be necessary to examine this idea.

The SIMS was relatively reliable over time: the test-retest correlation across two weeks was .60 in an adult sample and .47 in an adolescent sample. The stability is lower in adolescents and therefore the scale should be used cautiously in such samples until research can further examine the stability in this age range.

The SIMS was significantly related to variables known to be associated with trait mindfulness when assessed with existing multi-item trait mindfulness scales. The SIMS was negatively related to stress, anxiety, depressive symptoms, negative affect, self-consciousness, and neuroticism, and positively related to positive affect, empathy, prosocial behavior, and single-item measures of physical and mental health. The SIMS was unrelated to conscientiousness and self-control in Study 5, but it was significantly and positively related to self-control in Study 6. In Study 5, the rs were positive but non-significant although self-control was marginally related to the SIMS ($p = .08$). Such findings could be an anomaly or could be real. The SIMS is likely significantly related to self-control, but researchers should be cautious when using it in relation to self-control until more data can be examined.

The SIMS predicted daily reports of mindfulness assessed via a daily diary study in Study 7. The SIMS predicted daily reports of mindfulness better than one multi-item mindfulness scale (the MAAS, Brown & Ryan, 2003), but not as well as another multi-item mindfulness scale (the

CAMSR; Feldman et al., 2007). Yet, the relationship between the SIMS and daily reports of

mindfulness was low. Although we cannot determine why the relationship was small, we can

speculate. First, it could be small because one typical finds small relationships between trait

measures and trait-related daily measures. Indeed, the MAAS did not significantly predict daily

reports of mindfulness in Study 7. Second, it might be more difficult for people to report on

actual daily mindfulness in the moment versus overall. Finally, the SIMS simply might not be as

good at predicting daily reports of mindfulness as measures like the CAMS-R.

Recommendations for use of the SIMS

Researchers should use reliable and valid multi-item trait measures of mindfulness

whenever possible. The MAAS (Brown & Ryan, 2003), FFMQ (Baer et al., 2006), CAMSR

(Feldman et al., 2007), and other trait mindfulness scales (e.g., Freiburg Mindfulness Inventory;

Walach et al., 2006) have been used frequently in past research because they are reliable and

valid. However, we recommend the SIMS in situations in which multi-item trait measures are not

feasible. Some examples include exploratory research, situations in which participant time is

constrained, situations in which question quantity is limited, pilot studies, and so on. In these

cases, the SIMS is well-suited to measures trait mindfulness given its adequate reliability and

validity and quick completion time. Furthermore, the results of Study 6 suggest that the SIMS

can be used in adolescent samples given the reasonable evidence found in the study.

Limitations

Our results are not without limitations. First, as discussed above, the SIMS was as good

at predicting theoretically relevant outcomes as longer and more reliable trait mindfulness scales

in many but not all cases. Single-item measures sometimes suffer from this limitation and

therefore longer measures should be used when possible.

A second limitation is the generalizability of our results. Although our samples varied in age, race, gender, and geographical location in the U.S., they only included participants in the U.S. so it is unclear how well the SIMS would perform in other countries.

A third limitation is that we do not know if SIMS scores would change after people undergo brief or extended mindfulness training (e.g., Heppner & Shirk, 2018). The SIMS might pick up on changes in trait mindfulness after such training, but future research will be necessary to determine if it picks up on these changes as well as existing multi-item trait measures.

Fourth, we controlled for socially desirable responding in the adolescent sample in Study 6, but not in the adult samples. The results of Study 6 suggest that the SIMS correlates with longer trait measures of mindfulness and associated variables even after controlling for socially desirable responding. Therefore, it might be that socially desirable responding would not have much of an impact in adult samples. Yet, we did not provide evidence for that conclusion.

Finally, all of our studies involved self-report. The relationships between traits assessed via self-report can be artificially influenced due to common-method variance. Therefore, future studies involving observer reports or more objective measures of mindful behavior could further validate the usefulness of the SIMS as a trait measure of mindfulness.

Conclusion

Across eight studies, we provided evidence for the usefulness of a single-item measure of trait mindfulness (the SIMS) in adolescents and adults. The SIMS can be completed in seconds and can be useful in cases in which researchers are not able to use longer multi-item scales. Future research will be necessary to help us better understand the reliability and validity of the SIMS in various contexts and cultures.

Appendix

Single-Item Mindfulness Scale (SIMS)

To what extent do you agree with this statement: "I am a mindful person." (Note: a mindful person pays attention to the present, is less concerned about the past or future, and accepts things as they are).

1 = Not at all
2
3
4 = Moderately agree
5
6
7 = Strongly agree

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Table 1

Means, Standard Deviations, and Reliabilities for the Measures Collected in Study 1

	Mean	Standard Deviation	Alpha	Omega
Potential SIMS 1	4.17	1.39	*n/a*	*n/a*
Potential SIMS 2	4.11	1.42	*n/a*	*n/a*
Potential SIMS 3	4.29	1.50	*n/a*	*n/a*
Potential SIMS 4	4.66	1.40	*n/a*	*n/a*
Potential SIMS 5	4.85	1.43	*n/a*	*n/a*
MAAS	3.77	0.70	.83	.83
FFMQ: Total Score	3.16	0.39	.85	.80
FFMQ: Observing	3.29	0.61	.73	.72
FFMQ: Describing	3.28	0.72	.87	.86
FFMQ: Acting with Awareness	3.13	0.70	.87	.87
FFMQ: Nonjudging	3.13	0.83	.90	.90
FFMQ: Nonreactivity	2.93	0.59	.75	.75

Table 2

Means, Standard Deviations, and Reliabilities for the Measures Collected in Study 2

	Mean	Standard Deviation	Alpha	Omega
Potential SIMS 1	4.78	1.27	*n/a*	*n/a*
Potential SIMS 2	4.57	1.30	*n/a*	*n/a*
Potential SIMS 3	4.74	1.29	*n/a*	*n/a*
Potential SIMS 4	4.89	1.29	*n/a*	*n/a*
Potential SIMS 5	4.99	1.24	*n/a*	*n/a*
CAMSR	2.86	0.48	.84	.84
TMS	1.79	0.77	.91	.91
PSS	1.58	0.68	.89	.89
State Anxiety	1.82	0.67	.87	.87
Depressive Symptoms	2.78	0.98	.89	.89

Table 3

Correlations among Variables in Study 1

	1	2	3	4	5	6	7	8	9	10	11
1. Potential SIMS 1	-										
2. Potential SIMS 2	.68**	-									
3. Potential SIMS 3	.62**	.67**	-								
4. Potential SIMS 4	.62**	.62**	.73**	-							
5. Potential SIMS 5	.62**	.60**	.56**	.69**	-						
6. MAAS	.42**	.35**	.37**	.38**	.35**	-					
7. FFMQ: Total Score	.51**	.43**	.44**	.49**	.41**	.65**	-				
8. FFMQ: Observing	.26**	.17*	.29**	.26**	.29**	.09	.38**	-			
9. FFMQ: Describing	.13	.11	.13	.16*	.08	.32**	.54**	.08	-		
10. FFMQ: Acting with Awareness	.32**	.23**	.28**	.33**	.20**	.74**	.66**	-.03	.28**	-	
11. FFMQ: Nonjudging	.35**	.30**	.20**	.28**	.25**	.36**	.63**	-.04	.02	.33**	-
12. FFMQ: Nonreactivity	.38**	.45**	.41**	.39**	.39**	.25**	.58**	.21**	.11	.19*	.30**

$*p < .05; **p < .01$

Table 4

Correlations among Variables in Study 2

	1	2	3	4	5	6	7	8	9
1. Potential SIMS 1	-								
2. Potential SIMS 2	.74**	-							
3. Potential SIMS 3	.73**	.74**	-						
4. Potential SIMS 4	.71**	.76**	.75**	-					
5. Potential SIMS 5	.66**	.69**	.63**	.81**	-				
6. CAMSR	.47**	.52**	.46**	.48**	.45**	-			
7. TMS	.28**	.25**	.28**	.29**	.29**	.13*	-		
8. State Anxiety	-.16**	-.17**	-.18**	-.16**	-.13**	-.34**	.10	-	
9. PSS	-.29**	-.34**	-.25**	-.30**	-.26**	-.54**	.08	.57**	-
10. Depressive Symptoms	-.33**	-.36**	-.27**	-.37**	-.34**	-.54**	-.03	.48**	.78**

*p < .05; **p < .01

Table 5

Means, Standard Deviations, and Reliabilities for the Measures Collected in Studies 3 and 4

		Mean	Standard Deviation	Alpha	Omega
Study 3	SIMS	4.42	1.43	*n/a*	*n/a*
	FFMQ: Total Score	3.25	0.55	.92	.91
	FFMQ: Observing	3.38	0.71	.83	.83
	FFMQ: Describing	3.37	0.91	.92	.92
	FFMQ: Acting with Awareness	3.28	0.85	.91	.91
	FFMQ: Nonjudging	3.21	0.93	.91	.92
	FFMQ: Nonreactivity	2.98	0.69	.82	.82
Study 4	SIMS	4.04	1.26	*n/a*	*n/a*
	MAAS	3.68	0.75	.86	.85
	CAMSR	2.54	0.47	.82	.81

Table 6

Correlations among Variables in Study 3

	1	2	3	4	5	6
1. SIMS	-					
2. FFMQ: Total Score	.49**	-				
3. FFMQ: Observing	.27**	.48**	-			
4. FFMQ: Describing	.30**	.74**	.33**	-		
5. FFMQ: Acting with Awareness	.38**	.76**	.16**	.45**	-	
6. FFMQ: Nonjudging	.28**	.67**	.-.03	.28**	.50**	-
7. FFMQ: Nonreacting	.42**	.62**	.28**	30**	.32**	.31**

$*p < .05; **p < .01$

Table 7

Correlations among Variables in Study 4

	1	2
1. SIMS	-	
2. MAAS	.24**	-
3. CAMSR	.50**	.56**

*p < .05; **p < .01

Table 8

Means, Standard Deviations, and Reliabilities for the Measures Collected in Study 5

	Mean	Standard Deviation	Alpha	Omega
SIMS - Time 1	4.20	1.42	*n/a*	*n/a*
SIMS - Time 2	4.39	1.31	*n/a*	*n/a*
MAAS - Time 1	3.69	0.75	.85	.85
MAAS - Time 2	3.63	0.72	.85	.85
CAMSR - Time 1	2.54	0.45	.79	.78
CAMSR - Time 2	2.53	0.47	.82	.82
Self-Control	3.13	0.63	.82	.81
Openness	3.65	0.76	.65	.56
Conscientiousness	3.42	0.79	.66	.69
Extraversion	3.06	0.92	.76	.76
Agreeableness	3.94	0.79	.79	.79
Neuroticism	3.06	0.86	.63	.67
Positive Affect	3.36	0.70	.87	.87
Negative Affect	2.37	0.76	.86	.96
Self-Compassion	2.76	0.77	.88	.88
Private Self-Consciousness	2.75	0.52	.71	.70
Public Self-Consciousness	2.98	0.65	.82	.83
Social Anxiety	2.58	0.76	.83	.83
Nature Relatedness	3.05	0.98	.86	.87

Table 9

Correlations among Time 1 Variables in Study 5

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	SIMS	-														
2.	MAAS	.36**	-													
3.	CAMSR	.47**	.65**	-												
4.	Self-Control	.13	.48**	.49**	-											
5.	Openness	.05	.02	.05	-.08	-										
6.	Conscientiousness	.11	.37**	.38**	.53**	-.08	-									
7.	Extraversion	-.07	-.03	.04	-.13	.09	-.13	-								
8.	Agreeableness	.01	.01	.09	.15*	.24**	.15*	.14	-							
9.	Neuroticism	-.46**	-.46**	-.55**	-.30**	.22**	-.17*	.01	.15*	-						
10.	Positive Affect	.19**	.24**	.35**	.31**	.16*	.16*	.39**	.08	-.20**	-					
11.	Negative Affect	-.41**	-.49**	-.59**	-.42**	.04	-.28**	.07	.04	.63**	-.09	-				
12.	Self-Compassion	.43**	.48**	.65**	.33**	-.06	.17*	-.03	-.08	-.59**	.32**	-.58**	-			
13.	Private Self-Consciousness	-.15*	-.07	-.07	-.06	.32**	-.02	.11	.13	.25**	.15*	.23**	-.07	-		
14.	Public Self-Consciousness	-.37**	-.35**	-.36**	-.20**	.03	-.12	.11	.20**	.42**	-.01	.46**	-.45**	.42**	-	
15.	Social Anxiety	-.16*	-.18**	-.28**	-.03	-.10	.01	-.48**	.12	.27**	-.28**	.30**	-.24**	.16*	.34**	-
16.	Nature Relatedness	.06	-.02	.01	.03	.19**	-.02	-.06	.08	.03	.08	-.01	-.02	.23**	-.01	.03

*p < .05; **p < .01

Table 10

Means, Standard Deviations, and Reliabilities for the Measures Collected in Study 6

	Mean	Standard Deviation	Alpha	Omega
SIMS - Time 1	4.36	1.49	*n/a*	*n/a*
SIMS - Time 2	4.40	1.37	*n/a*	*n/a*
Self-Control	4.84	1.32	*n/a*	*n/a*
Mental Health	2.70	1.11	*n/a*	*n/a*
Physical Health	2.96	1.13	*n/a*	*n/a*
Empathic Concern	3.66	0.75	.48	.55
Perspective Taking	3.52	0.81	.58	.58
Formal Prosocial Behaviors	2.10	0.94	.57	*n/a*
Informal Prosocial Behaviors	2.69	0.87	.49	*n/a*
Community involvement	2.26	0.96	.35	*n/a*
Activism	1.76	0.72	.63	.66
Youth Involvement Inventory Average	2.15	0.63	.76	.77
Social Desirability	1.81	1.44	.58	.59

Table 11

Correlations among Time 1 Variables in Study 6

	1	2	3	4	5	6	7	8	9	10	11
1. SIMS	-										
2. Self-Control	.28**	-									
3. Mental Health	.17**	.27**	-								
4. Physical Health	.22**	.32**	.43**	-							
5. Empathic Concern	.17**	.08*	-.02	.03	-						
6. Perspective Taking	.20**	.25**	-.01	.04	.40**	-					
7. Formal Prosocial Behaviors	.11**	.06	.13**	.13**	.05	-.03	-				
8. Informal Prosocial Behaviors	.15**	.10*	.06	.09*	.19**	.11**	.43**	-			
9. Community involvement	.13*	.09*	.14**	.16**	.03	-.06	.53**	.35**	-		
10. Activism	.07~	-.01	.04	.00	-.04	-.06	.46**	.35**	.29**	-	
11. Youth Involvement Inventory Average	.15**	.08*	.12**	.12**	.07~	-.02	.81**	.70**	.73**	.73**	-
12. Social Desirability	.10*	.17**	.08*	.08*	.06	.14**	.18**	.10*	.09*	.15**	.18**

$\sim p < .10$; $*p < .05$; $**p < .01$

Table 12

Means, Standard Deviations, and Distribution of Responses on the 1 to 7 Rating Scale for the

SIMS, Study 8

	N	Mean	Standard Deviation	1	2	3	4	5	6	7
Total Sample	1,060	4.78	1.46	15	51	133	263	242	207	149
Females	543	4.68	1.47	9	30	69	151	122	85	77
Males	517	4.88	1.43	6	21	64	112	120	122	72
White	799	4.77	1.43	9	40	100	196	191	159	104
Black	139	4.81	1.70	5	9	14	36	22	21	32
Asian	71	4.82	1.32	1	1	10	16	19	18	6
Mixed Race	27	4.81	1.36	0	1	4	6	7	6	3
Other Race	24	4.67	1.40	0	0	5	9	3	3	4
18 to 38 Years	405	4.68	1.48	6	22	64	91	93	77	52
39 to 59 Years	386	4.86	1.48	7	19	37	96	88	76	63
60 Years and Above	269	4.79	1.37	2	10	32	76	61	54	34