Brief Report

A classroom-based pilot of a self-compassion intervention to increase wellbeing in early adolescents

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A B S T R A C T

A Classroom-Based Pilot of a Self-Compassion Intervention to Increase Wellbeing in Early adolescents Abstract Objective: Our first aim was to examine the effect of a 4-week self-compassion-based intervention on emotional well-being in a school classroom of early adolescents. The second aim was to evaluate feasibility and accept-ability of the program within a classroom setting. Design: This study was a pre–post pilot design utilizing paired sample t-tests to examine within-person changes in the outcome measures prior to, and following, the inter-vention. Bivariate correlations were also used to assess covariation between the pre-to-post change scores in self-compassion and the pre-to-post change scores in the outcome measures. Setting: The intervention was conducted during a wellbeing class at a culturally diverse secondary school. Participants: The sample comprised 18 students aged 12- to 14-years old (M age $= 12.44$, SD $= 0.61$). Intervention: A brief self-compassion-based program, Be Kind to Yourself, Inspire Others, was developed specifically for early adolescents and delivered across four 70-minute lessons. Main outcome measures: The outcome measures were self-compassion, resilience, perceived stress, social and general anxiety, and peer and school connectedness. Results: Findings revealed significant increases in self-compassion, resilience, and peer connectedness, and significant decreases in social and general anxiety at posttest, with small to medium effect sizes (Hedges' $g = 0.30$–0.67). No significant differences were found for perceived stress and school connectedness. Pre-to-post changes in self-compassion covaried with pre-to-post changes in resilience and peer connectedness. Feasibility and acceptability were high. Findings suggest that a brief, classroom-based self-compassion intervention may be feasible and effective in improving indicators of emotional well-being among early adolescents.

Wellbeing during early adolescence (i.e., 12 to 14-years)[1] may be impacted by increases in stress when youth are preparing to enter, or have recently commenced, secondary school.[2] It is also estimated that globally, during the Covid-19 pandemic, one in five 10- to 14-year-olds experienced social and generalised anxiety, and one in four experienced depression, which compared to pre-pandemic estimates suggests that youth mental health difficulties have likely doubled.[3] Compounding these challenges, the loss of peer interactions and social isolation during the pandemic may have further impacted youth well-being.[4] Australian adolescents reported increases in depressive symptoms and anxiety and a decrease in life satisfaction during COVID-19 relative to the 12-months prior, with COVID-19 related worries, learning changes and conflict with parents predicting the increase in problems.[5]

Schools are optimal settings for reaching large numbers of students to deliver effective interventions that support well-being, particularly in terms of coping and emotion regulation skills, and to build social connections with others.[6] One emotion-regulation strategy shown to increase well-being and decrease mental health risk factors in adoles-cents is self-compassion.[7] According to Neff,[8] self-compassion is defined as comprising three compassionate self-responding (i.e., self-kindness, common humanity, and mindfulness) and three uncompassionate self-responding (i.e., self-judgement, isolation, overidentification) fac-ets. Self-compassion interventions, such as Mindful Self-Compassion, are designed to help increase compassionate self-responding to reduce the uncompassionate self-responding.[9] For example, development and use of self-kindness, which involves showing oneself comfort and under-standing during distress, helps to reduce one's self-judgement.

Although mindfulness classes for early adolescents have been con-ducted in schools with varying success, they tend to focus on qualities of attention, awareness, non-judgment, and acceptance (mindfulness) without substantial consideration afforded to actively soothing ones' suffering (through self-kindness) or recognition that distress is part of

the human condition (i.e., common humanity).[10] Thus, the additional coping skills of self-kindness and common humanity may serve to cultivate self-soothing behaviours and connectedness among adolescents,[7] particularly given that egocentrism peaks at age 13 laying the foundation for the personal fable (belief that their experiences are unique to them) and the imaginary audience (belief that others are constantly judging them).[11]

In support of its effectiveness, following a 6-week mindful self-compassion program for 14- to 17-year-olds, participants reported higher levels of life satisfaction and self-compassion and lower levels of depression.[7] A similar program was conducted with 11- to 17-year-olds over eight weeks, and findings indicated self-compassion increased whereas perceived stress decreased from baseline to post-test,[12] however more robust increases in self-compassion occurred for older rather than younger adolescents. Another pilot study showed that changes in self-compassion were related to changes in life satisfaction and perceived stress in 10- to18-year olds.[13] Nonetheless, given the small sample sizes and broad age range of those studies, it is difficult to determine the number of early adolescents involved and how many benefitted from the programs. Additionally, although participants in all three studies were recruited from schools, none of the studies were conducted in a school setting where all students of a similar age, regardless of risk, could potentially benefit from such a program. Schools thus provide an ideal context for universal prevention / health promotion, whereby all youth benefit from an intervention aimed at equipping them with strategies to manage difficult emotions.

Aims of this pilot study included (a) conducting the program within a school classroom, (b) adapting aspects of prior interventions[7,12] and the *Self-Compassion Workbook for Teens*[14] (c) reducing the length to four weeks (to fit with school curricula) and simplifying the structure to suit 12- to 14-year-olds, and (d) investigating pre- to post-program changes in self-compassion, resilience, perceived stress, social and general anxiety, and school and peer connectedness as result of the intervention. Additionally, we sought to determine if pre-post change scores in self-compassion covaried with pre-post change scores in outcome measures and evaluate feasibility and acceptability of the program.

Method

Participants and procedures

The sample comprised 18 students aged 12- to 14-years (M_{age} = 12.44, SD = 0.61) from a combined Year 7 and 8 well-being class at a coeducational culturally diverse secondary school in Queensland, Australia. Of the 18 participants, 11 were female, and the distribution for race was: 50% (9) White, 11.1% (2) African, 11.1% (2) Australian Aboriginal, 11.1% (2) Mixed race, 5.6% (1) Asian, 5.6% (1) Maori, and 5.6% (1) Middle Eastern. Following approval from the University Human Research Ethics Committee, the study was pre-registered at htt ps://aspredicted.org/LTB_YN4. Adolescents with parental consent provided verbal assent prior to commencement of the program, and at the start of each lesson. Participants completed the outcome measures using a secure online survey before and after the intervention. All responses were anonymous. Codes were used to match pre- to post-program data. Attendance and retention were almost 100% with only one student missing a class due to prior commitments.

Intervention

The intervention was inspired by the *Self-Compassion Workbook for Teens*[14] and developed by the first author who has conducted self-compassion workshops with adolescents and young adults. The first author has taken self-compassion workshops, is a qualified yoga teacher with 15 years' experience, and has had a personal ongoing self-compassion practice for over 6 years. An important contribution of the current program was the development of the traffic light system to

help students remember the three stages of self-compassion: Red: stop and focus on my feelings, this hurts right now; Amber: other people feel this way too, I'm not alone; Green: use my soothing touch and say may I be kind to myself, may I be strong" (see Supplementary materials). The program was conducted weekly, for four weeks, during the usual 70-minute well-being class. The universal intervention was discussed with the teacher for classroom suitability and led by the first author. A self-compassion workbook, developed by the first author, was issued to students at the start of each lesson (see Supplementary materials). The teacher was present during each session and assisted with group activities (e.g., handing out workbooks, keeping time for activities, and assisting with basic questions from students).

Lesson one introduced the first two components, mindfulness and common humanity. Based on prior findings,[7] students were issued stress balls as something tangible with which to manage distressing emotions in a balanced way (mindfulness). The program name and an image of the globe were printed onto the stress balls to promote the notion that distress is a shared human experience (common humanity). The second lesson introduced students to the third component, self-kindness where they learned to use the "soothing touch" (e.g., placing hand on chest as a comforting gesture) engage in kind self-talk (e.g., may I be patient) and practice a body scan meditation. Lesson three focused on the use of self-compassion regarding issues related to social media. For the final lesson, the class reviewed what they had learned over the three weeks and how they could continue to apply self-compassion in their daily lives. Following a brief compassionate body scan meditation, small groups were issued one canvas each on which to paint what self-compassion meant to them. The aim of the painting was to promote awareness of their emotions (mindfulness), connectedness (common humanity), kindness (self-kindness), co-operation, and creativity. Throughout the program, given that most activities were group-based, the facilitator ensured that all students had the opportunity to engage in discussions. Students were also encouraged to share times where they used self-compassion, outside of class, at the start of each lesson.

Measures

The 17-item Self-Compassion Scale for Youth[15] assessed self-compassion. Responses range from 1 (*Almost Never*) to 5 (*Almost Always*). Internal consistency was high in the current study at pre-test (α = 0.88) and post-test (α = 0.89). The 6-item Brief Resilience Scale[16] assessed resilience with responses ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). High reliability was shown in the current study at pre-test (α = 0.83) and post-test (α = 0.84). The 10-item Perceived Stress Scale[17] and responses range from 0 (*Never*) to 4 (*Very Often*). Internal consistency was high for this study at pre-test (α = 0.87) and adequate at post-test (α = 0.78). The 12-item Social and General Anxiety subscales from the Spence Children's Anxiety Scale[18] assessed each component of anxiety (six items each). Responses ranged from 1 (*Never*) to 4 (*Always*). Internal consistency was adequate to high for this study at pre-test for social (α = 0.65) and general (α = 0.79) anxiety respectively, and post-test for social (α = 0.80) and general (α = 0.87) anxiety respectively. School connectedness was assessed using the 6-item School Connectedness Scale[19] and response items ranged from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). High internal consistency was reported in the current study at pre-test (α = 0.89) and post-test (α = 0.88). Peer connectedness was assessed using the 7-item Peer Connectedness Scale[19] and responses ranged from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Internal consistency was high for this study at pre-test (α = 0.87) and post-test (α = 0.82).

Analytical design

Paired sample *t*-tests were conducted to detect differences between pre- and post-intervention measures. Effect sizes were calculated using Hedges g, as is recommended for use with small samples. A Holm-

Bonferonni adjustment was used to control for multiple comparisons.[20] Bivariate correlations were conducted to determine if changes in self-compassion were related to changes in outcome measures; change scores were created for all variables by subtracting the pre-score from the post-score. The minimum number of participants was determined to be 20 for these analyses, assuming power of 0.80 and a moderate effect size. Feasibility was assessed through attendance data and adherence to, and completion of, workbook activities where completion of each activity was expected to be ≥ 50% (given that most activities were group-based where one person often wrote the majority of discussion points). Acceptability was assessed via feedback on content using a 5-point scale ranging from 1(*Not at All/Almost Never*) to 5 (*Extremely/Almost Always*).

Results

Means and standard deviations for all measures completed before and after the 4-week program, and results of paired *t*-tests comparing pre- to post-measures, are presented in Table 1. Self-compassion, resilience, and peer connectedness significantly increased with small to medium effect sizes, whereas social and general anxiety decreased with medium effect sizes (see Table 1). Although there was a reduction in perceived stress, $p = 0.02$, it did not reach significance with the Holm-Bonferroni adjustment. No significant difference was found between pre- to post-measures of school connectedness.

The self-compassion pre-to-post difference score was positively associated with resilience and peer connectedness difference scores (see Table 2). With regards to acceptability, 67% (12/18) found the program very-to-extremely useful, 78% (14/18) reported they used self-compassion sometimes-to-often, and 78% (14/18) thought it would be an extremely useful addition to the school curriculum.

Discussion

Early adolescents who participated in this brief, 4-week classroom-based self-compassion program demonstrated improvements in emotional well-being, with significant increases in self-compassion, resilience, and peer (but not school) connectedness and decreases for social and general anxiety, at post-program, with small to medium effect sizes. Although the critical period for increases in social anxiety emerges between pre- and middle- adolescence,[21] no prior study, to the authors' knowledge, has examined the effectiveness of self-compassion on social anxiety during this developmental stage. Given that social anxiety has been shown to be on par with generalised anxiety prevalence rates in Australian youth,[22] findings suggest that social anxiety may be an important mental health outcome to examine in this population. The lack of increase in school connectedness and decrease in perceived stress may have been attributed to the unpredictability of school closures during the pandemic.[4] Notably, the non-significant finding regarding perceived stress is not consistent with the increases in perceived stress

Table 1

Descriptive statistics at pre- and post-intervention and intervention outcomes (*N* = 18).

Outcome	Pre *M(SD)*	Post *M(SD)*	*t*-value	Hedges' *g*
Self-compassion	2.81 (0.59)	3.40 (0.49)	−8.69***	0.30
Resilience	2.71 (0.81)	3.15 (0.84)	−2.89**	0.67
Perceived stress	20.44 (6.07)	18.22 (5.80)	2.20	0.45
Social Anxiety	3.05 (0.62)	2.42 (0.75)	5.02***	0.57
General Anxiety	2.88 (0.65)	2.57 (0.84)	3.00**	0.45
School Connectedness	3.75 (0.71)	3.65 (0.90)	0.97	0.47
Peer Connectedness	3.60 (0.73)	3.91 (0.72)	−2.72**	0.51

Note. Significance values are one-sided. Hedges' *g*: small effect = 0.20, medium effect = 0.50, large effect = 0.80.
 * $p < 0.01$,.
 *** $p < 0.001$.

Table 2

Correlations Between Pre-Post Difference Scores in Self-Compassion, Resilience, Social and General Anxiety, and Peer and School Connectedness.

	2.	3.	4.	5.	6.	7
1. Self-Compassion	**.72****	.22	.05	−.17	−.17	**.48***
2. Resilience		.23	−.18	−.08	.11	.19
3. Perceived Stress			.50*	.23	−.31	−.41
4. Social Anxiety				.33	−.42	−.33
5. General Anxiety					−.10	−.10
6. School Connectedness						−.31
7. Peer Connectedness						

Note. Significant covariances between self-compassion and other outcome variables are in bold.
 * $p < 0.05$.
 ** $p < 0.01$.

shown in some prior studies,[7, 12] however this discrepancy may be due to the correction for multiple tests applied in the current study.

Preliminary findings from this pilot study suggest that a brief 4-week course on self-compassion is feasible for classroom delivery and beneficial to students' short-term wellbeing. Although we cannot directly compare our study to prior self-compassion interventions, given the small sample size and lack of follow-up phase, effect sizes at post-test seem consistent with longer-term programs.[7,12] Similarly, the increase in self-compassion across 4-weeks indicates that self-compassion may be enhanced with practice.[7,12,13] Our findings also contribute to the current but limited self-compassion research in this age group by showing that pre-to-post increases in self-compassion covaried with increases in pre-to-post resilience and peer connectedness scores suggesting potential effectiveness of self-compassion in increasing some elements of wellbeing. Feasibility of the program was demonstrated by the near perfect attendance during the four weeks (although students were given the option to opt out, adherence remained high), and compliance with content activities. The program was also generally well-received by the students.

However, there are considerable limitations that render these findings tentative. In the absence of a control group, it cannot be determined whether results are due to the self-compassion program or to other time-related variables and generalizability is limited by the small sample size. Future implementation studies should include more classes across different schools, active control groups, and 6- 12-month follow-up periods to confirm our findings in this age group. It would also be worthy to examine whether effects are moderated by gender. Additionally, although the intervention was conducted by the first author in adherence with the three steps of self-compassion according to Neff and Germer,[9] the sessions could not be recorded, in line with state school policy, for independent fidelity assessment. Larger trials implemented by other facilitators (or teachers) require training to recommended standards[9] as well as reporting of independent fidelity ratings to ensure intervention integrity. Overall, our preliminary findings suggest that implementation of a 4-week self-compassion program embedded within early secondary school wellbeing classes seems feasible, but as the field advances, and with larger trials, studies that examine dose-response are also required – that is, what is the optimal dose of school-based programs for prevention or intervention effects, as well as when is timing best across child and youth schooling?

Funding

Pre-registration

The study protocol was registered at aspredicted.org and accessible (in an anonymous version) for peer review at https://aspredicted.or

g/LTB_YN4

Data availability

The data have been deposited at https://osf.io/9fwnu/, however given the names of schoolteachers in the Acknowledgements and the small sample size, the authors and the school would prefer to leave the data private. The data may be shared upon reasonable request.

Declaration of Competing Interest

The authors declare that they have no conflict of interest.

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.explore.2022.06.003.

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