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MEASURING COMPASSION IN YOUNG PEOPLE

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Summary

Section A: This section discusses issues related to the measurement of compassion in young people. The systematic review identifies and critically appraises existing compassion measures used with young people. The psychometric properties of eight measures, from 15 psychometric papers are presented. Measures are rated for quality for content validity, factor structure, internal consistency, test-re-test reliability, construct validity, floor/ceiling effects and interpretability. Quality ratings suggested that all measures had psychometric weaknesses. Implications are discussed, and recommendations are made for future research.

Section B: This section examined the psychometric properties of the Sussex-Oxford Compassion for Others Scale (SOCS-O) and Sussex-Oxford Compassion for the Self Scale (SOCS-S) with 486 young people aged 11-16 years. Confirmatory factor analyses were conducted to examine the factor structure. Internal consistency, test-retest reliability, floor/ceiling effects, interpretability, and convergent/discriminant validity were also examined. Results indicate the SOCS-O and SOCS-S are robust measures of compassion for others and self-compassion in young people, supporting their use in research and practice. Clinical and research implications are discussed. Limitations and future research are also considered.

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Abstract

There has been increased scientific interest in compassion in recent years, and compassion is suggested to have many benefits for young people, reflecting the adult literature. However, research highlights issues related to the measurement of compassion in young people. The systematic review aimed to describe and critically appraise the compassion measures used with young people, and their psychometric properties. Three databases were searched (Medline, Psychinfo, Web of Science), and 15 papers were included which outlined the psychometric properties of eight compassion measures used with young people. The measures were critically reviewed and rated for quality, with quality ratings ranging from 2 to 9 out of 14. All measures had clear psychometric weaknesses. The majority of papers assessed self-compassion and no identified papers examined psychometric properties with young people in the UK. Overall, this review suggests that the majority of compassion measures are not suitable for use with young people. Recommendations for future research are discussed.

Introduction

Compassion

There has been increased scientific interest in compassion in recent years, and recognition of its importance in education (Compassion in Education Foundation, 2016) and the NHS, with compassion an NHS value (Department of Health, 2013). Many definitions exist in the literature. Compassion is considered to be an evolutionary emotion, which is reproductively beneficial and has evolved as the affective element of the caregiving system to nurture and protect offspring (Gilbert, 2010; Goetz et al., 2010). Commonly cited is Gilbert's definition of compassion as "the sensitivity to suffering in self and others, with a commitment to try to alleviate and prevent it" (Gilbert, 2014, p.19). Gilbert proposes that compassion is associated with basic motivational systems: activation of the reward and care/affiliation systems and the deactivation of the threat system. Compassion Focused Therapy is rooted in this understanding and centred around balancing three emotion regulation systems (drive, threat, soothing) (Gilbert, 2014).

Also commonly cited is Neff's (2003a) conceptualisation of self-compassion as having three main components: self-kindness (being kind and understanding toward oneself rather than self-critical in instances of pain or failure), common humanity (perceiving one's experiences as part of the larger human experience rather than as isolating), and mindfulness (holding painful thoughts and feelings in balanced awareness rather than over-identifying with them).

Research suggests that compassion can be directed inward toward the self, or outward towards others (Roeser et al., 2018). The process of compassion is generally suggested to be equivalent for compassion for others (other-compassion) and self-compassion (Feldman & Kuyken, 2011; Gilbert, 2014). Whilst understanding of this relationship is more limited in

young people, findings suggest these orientations of compassion are overlapping constructs in young people (Cunha et al., 2021).

Development of Compassion

Theories about compassion development build on previous developmental research from multiple theoretical perspectives (Peplak & Malti, 2022; Roeser et al., 2018) including: prosocial motivation and behaviour (Eisenberg, 2000); perspective taking (Selman, 1980); empathy and moral development (Hoffman, 2000); and attachment (Mikulincer & Shaver, 2017).

The beginnings of compassion are suggested to exist from the first years of life, shown through infants empathic responses to others (Hoffman, 2000), followed by children starting to express concern and prosocial behaviour towards others, in the second year of life (Eisenberg, 2000). Perspective taking skills emerge around six-years-old and continue developing into adolescence and adulthood. These skills are important for the development of compassion, as they allow children to understand the emotions of others (Selman, 1980). During early adolescence, perspective taking skills approach adult levels. It is suggested that adolescence may be the early stages of more adult-type compassion, based on more complex understanding of the self, others, and the ability view experiences of the self and others from a third person or societal perspective (Bengtsson et al., 2016; Selman, 1980). Theoretically, whilst the capacities involved in compassion are developing into adolescence, they are not fully developed until adulthood.

Multiple factors are suggested to influence development of compassion. Temperamental factors (e.g., emotionality, shyness) are suggested to affect prosocial development, indirectly through influence on emotion regulation, and directly through situation selection (Spinrad & Eisenberg, 2017). Compassion is also suggested to be promoted by socialisation that communicates and reinforces prosocial values, and

empathetic responding from role models (Eisenberg et al., 2006). Quality of early attachment relationships are associated with emotion regulation and prosocial motivation (Gross et al., 2017), and adults with secure attachments show greater levels of compassion and prosocial behavior (Mikulincer & Shaver, 2017). Moreover, parenting styles in childhood characterised by warmth and positive affect predict later sympathy and prosocial responding (Eisenberg et al., 2015), suggesting that caregiver experiences influence compassion development.

Educational settings and community groups also offer opportunities to develop compassion by increasing awareness of others, modelling caring behavior, and providing opportunities to learn about others in ways that contribute to a sense of shared humanity (Eccles & Roeser, 2015).

Complex interactions between these factors may influence development of compassion. However, need for comprehensive developmental theories of compassion and longitudinal research is highlighted (Roeser et al., 2018).

Benefits of Compassion

Whilst most research has been conducted with adults, the literature with young people is growing and reflects findings with adults, suggesting self-compassion is important for the psychological and social wellbeing of young people. In research with young people, self-compassion has been associated with enhanced wellbeing, happiness, mindfulness, resilience, social connectedness, and mastery-oriented goals, in addition to reduced anxiety, depression, and performance-oriented goals (Marsh et al., 2018; Neff & McGehee, 2010; Neff et al., 2021). Self-compassion has also been negatively associated with peer victimisation (Hatchel et al., 2019), and has shown to moderate the relationship between peer victimisation and self-harm (Jiang et al., 2016). Whilst research on other-compassion is more limited for young people than adults, a recent study with adolescence showed positive associations with emotion regulation, wellbeing, and mindfulness (Heidary et al., 2022).

Given the challenges adolescence brings with social and environmental stressors (Steinberg & Morris, 2001), and increased vulnerability for mental health difficulties (NHS Digital, 2021), the literature suggests this is an important time to offer compassion-based interventions (CBIs) to support young people's psychological and social wellbeing. An explanation for the benefits of compassion suggested in the literature is through compassion activating the soothing system, which is associated with feelings of contentment, safety, and connectedness, helping to regulate elevated threat-oriented emotions (Gilbert, 2010).

Challenges in Compassion Research

Challenges in research have included lack of consensus in defining compassion, and insufficient psychometrically robust measures of the construct. Strauss et al. (2016) therefore consolidated existing conceptualisations and definitions in the literature into one multi-faceted definition, with the aim of advancing scientific research. Strauss et al.'s (2016) definition proposes compassion as a cognitive, affective, and behavioural process consisting of five elements: 1) recognising suffering; 2) understanding the universality of human suffering; 3) feeling empathy for the person suffering and connecting with the distress (emotional resonance); 4) tolerating uncomfortable feelings aroused in response to the suffering person (e.g., distress, anger, fear); 5) motivation to act/acting to alleviate suffering. This definition of compassion will be used throughout this review.

Gu et al. (2017) empirically examined the underlying conceptual structure of compassion. Items drew on existing self-report measures and were generated and revised in consultation with experts representing different cultural contexts and reviewed by the target population. Exploratory factor analysis (EFA), which does not impose any theoretical assumptions or factor structure on the data, supported the five-factor hierarchical structure of compassion, with the five elements captured under an overarching compassion factor and consistent with Strauss et al.'s (2016) definition. This definition is therefore grounded in

theory and empirically supported. Strauss et al. (2016) systematically reviewed nine self-report compassion measures for adults, finding that no measure comprehensively measured compassion with acceptable levels of reliability and validity. This highlighted a significant barrier to compassion research and suggests similar issues may exist for youth measures.

Measuring Compassion in Young People

Compassion research with young people is more limited than research with adults. Research with adolescents, particularly younger adolescence, may be more limited due to the limited validated compassion measures for young people (Neff et al., 2021). Research has mostly been conducted with older adolescents using measures developed for adults (Self-Compassion Scale [SCS]; Neff, 2003b; SCS-Short Form; Raes et al., 2011) (Neff et al., 2021). Inconsistencies are reported for the SCS factor structure in adult literature, which may suggest poor validity (Muris & Otgaar, 2020). These measures may therefore be unsuitable for assessing compassion in young people. Measures that do not fully capture the nature of compassion, and that have psychometric weaknesses could lead to inaccurate research findings, thereby limiting advancements in research and practice.

Meta-analyses of CBI randomised control trials (RCTs) indicate that compassion is a skill that can be cultivated (Ferrari et al., 2019; Kirby et al., 2017). They also highlight the lack of RCTs assessing compassion in young people, representing a gap in the literature. RCTs evaluating CBIs with young people are therefore needed to improve understanding of their impact, their mechanism of action, and the development of compassion in young people. This highlights the need for valid and reliable compassion measures suitable for young people, to advance research and address gaps in the literature.

Rationale and Aims

Strauss et al. (2016) conducted a systematic review of compassion measures focused on adult compassion measures. However, to the authors knowledge, no systematic review has

examined the psychometric properties of compassion measures for young people to date. A psychometric systematic review (Munn et al., 2018) of compassion measures for young people is presented. This review aims to describe and critically appraise compassion measures for young people and their psychometric properties, to help understand their suitability for use in research and practice and identify areas for future research.

Method

Systematic Search

An initial scoping search was conducted using Google scholar, for an overview of existing literature and to inform search terms. Electronic database searching was used to identify relevant papers. Databases searched were Medline, Psychinfo and Web of Science, from inception to September 2022. Abstracts were searched using the following search terms: (compassion* OR self-compassion*) AND (measure* OR scale* OR questionnaire) AND ("young people" OR youth OR child* OR adolesce* OR teen*) AND (valid* or reliab* or psychometric* or "factor analys*"). Results were limited to English language. Inclusion and exclusion criteria are outlined in Table 1. Where identified papers referred to additional scales, reference lists were hand searched, and additional relevant papers retrieved. Figure 1 presents a PRISMA diagram (Page et al., 2021) outlining the screening process. The search and identified papers were replicated by the author's supervisor.

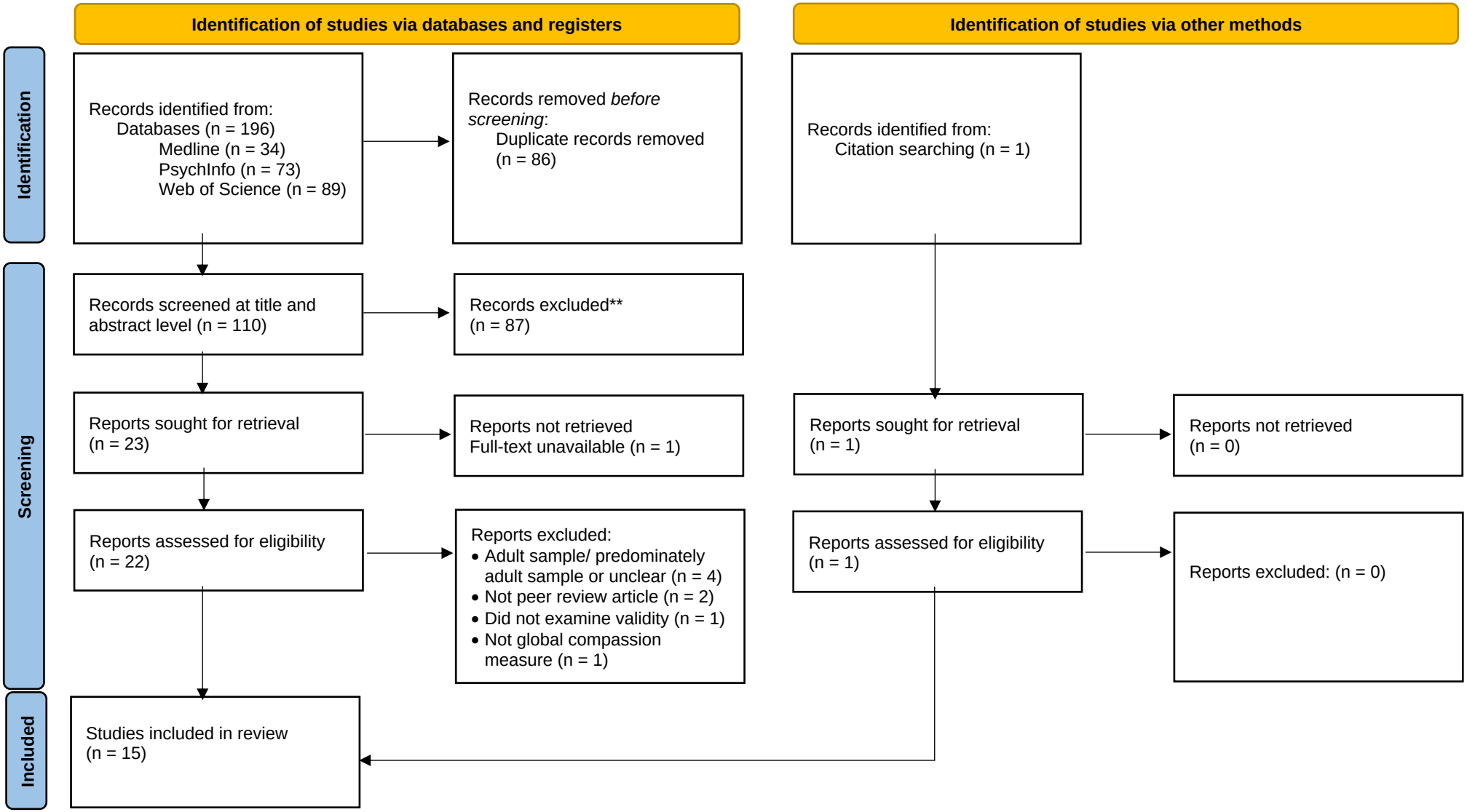
Table 1

Inclusion and Exclusion Criteria for Papers

Inclusion Criteria	Exclusion Criteria
• Description of the measure is related to compassion or self-compassion • Psychometric paper outlining the development or validation of a measure • Majority of participants under 18 • Published in English language • Peer review article	• Measure did not specifically assess global compassion (e.g., body compassion) • Exclusively adult sample • Unclear if the majority of participants were under 18 (e.g., 15-20 years with no information about number of participants of different ages) • Non-questionnaire measure of compassion or subscale used

Figure 1

Prisma Diagram



*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).
**If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: http://www.prisma-statement.org/

Assessment of Quality

Like Strauss et al. (2016), the quality of measures was reviewed and rated largely based on Terwee et al.'s (2007) quality criteria for health status measures. Terwee et al. (2007) give positive (+), intermediate (?), or negative (−) ratings, or a rating of 0 where no information regarding the relevant criteria is provided. However, congruent with Strauss et al. (2016) to make ratings easier to interpret, measures were given a rating of 2 if there was evidence for the criterion being fully met, 1 if the criterion was partially met, and 0 if the criterion was not met, or if no relevant data was provided. Like Strauss et al. (2016), Barker et al.'s (2002) guidance for evaluating psychological measures were also drawn on when considered more appropriate. Quality criteria are outlined in Table 2.

Quality ratings were summed to give overall ratings. The total possible rating was 14. Where multiple papers published conflicting information, the majority of published data needed to meet the criteria.

Table 2

Quality Criteria for Rating Measures

Property	Definition	Quality Criteria
1. Content validity	The extent to which the domain of interest is comprehensively sampled by questionnaire items. The definition used should reflect the current state of research for the construct (Terwee et al., 2018). Strauss et al.'s (2016) definition of compassion was therefore considered, rather than the author of the measure's definition, with theory-free EFA supporting this five-factor definition (Gu et al., 2017). By applying one definition, and the same definition to assess all measures, the approach taken was consistent throughout facilitating interpretation of scores. Components of compassion are referred to as follows: Recognising (R) = recognising suffering Universality (U) = understanding the universality of suffering Feeling (F) = feeling for the person suffering Tolerating (T) = tolerating uncomfortable feelings Acting (A) = acting/being motivated to act to alleviate suffering	These criteria were based on Terwee et al. (2007). **2:** Five elements of compassion captured by items AND items generated in consultation with both experts and young people; **1:** Five elements of compassion captured by items OR items generated in consultation with both experts and young people; **0:** Five elements of compassion not captured AND items not generated in consultation with both experts and young people.
2. Factor structure	Whether the factor structure for the compassion measure is examined and supported.	These criteria were additional to those proposed by Terwee et al. (2007) and based on the criterion proposed by Strauss et al. (2016). Exploratory structural equation modelling (ESEM) and Principal Component Analysis (PCA) were also added to these criteria to aid rating. The bifactor-ESEM

		framework has been developed to provide more precise psychometric examination of measures (Morin et al., 2016) and is a combination of Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) (Morin et al., 2013). PCA has a greater emphasis on data reduction than interpretation and EFA and CFA are therefore recommended to examine the factor structure (Alavi et al., 2020). **2:** EFA followed by CFA and conducted in independent samples OR CFA conducted if factor structure was theoretically proposed previously OR ESEM AND factor analyses support the proposed factor structure; **1:** EFA conducted without CFA and EFA supports the factor structure; **0:** Factor analysis not conducted OR conducted but does not support the proposed factor structure OR PCA conducted.
3. Internal consistency	The extent to which items in a (sub)scale are inter-correlated, thereby measuring the same construct.	These criteria were based on Terwee et al. (2007). **2:** Factor analyses conducted on an adequate sample size (7 * number of items AND $N > 100$) AND Cronbach's alpha for each identified factor between .70 and .95; **1:** Factor analyses not conducted on adequate sample size OR Cronbach's alpha for each identified factor <.70 OR >.95; **0:** No information on internal consistency. George & Mallery's (2003) rules of thumb for internal consistency are used when describing internal consistency in text: α <.50 unacceptable, .50 ≤ α <.60 poor, .60 ≤ α <.70 questionable, .70 ≤ α <.80 acceptable, .80 ≤ α <.90 good, and $\alpha \geq .90$ excellent

4. Test-retest reliability	The extent to which participants' performance is repeatable, i.e., how consistent scores are across time.	These criteria were based on Terwee et al. (2007). However, as these criteria did not include Pearson's *r*, Barker et al.'s (2002) guidance was also drawn on. **2:** ICC OR weighted kappa ≥ .70; **1:** ICC OR weighted kappa < .70 OR *r* ≥ .70; **0:** *r* < .70 or no information on test-retest reliability.
5. Construct validity	The extent to which scores on a measure relate to other measures in a way that is consistent with theoretically derived hypotheses about the constructs being measured.	These criteria were based on Terwee et al. (2007). However, as Terwee et al. (2007) do not take into account the strength of these correlations, Barker et al's (2002) guidance was drawn on in relation to this. **2:** Specific hypotheses given AND at least 75% of results in line with these hypotheses AND a minimum of two correlations of *r* ≥ .50 to demonstrate convergent validity; **1:** Specific hypotheses given AND less than 75% of results in line with these hypotheses AND/OR less than two correlations of *r* ≥ .50 to demonstrate convergent validity OR other clear methodological weakness; **0:** No specific hypotheses given OR no information on construct validity. Cohen's (1988) benchmarks for effect sizes are used when describing the strength of correlations in text: *r* = .1-.3 were considered small, *r* = .3-.5 were considered medium, *r* = over .5 were considered large
6. Floor/ ceiling effects	The number of respondents obtaining the highest or lowest possible scores.	These criteria were based on Terwee et al. (2007) and adapted to be more specific regarding whether floor/ ceiling effects were specifically examined to aid rating.

		2: Floor/ceiling effects specifically referenced AND ≤15% of the respondents achieved the highest or lowest possible scores; **1:** Floor/ceiling effects specifically referenced AND >15% of the respondents achieved the highest or lowest possible scores OR floor/ceiling effects not specifically referenced but data indicates ≤15% of the respondents achieved the highest or lowest possible scores; **0:** No information on floor/ ceiling effects.
7. Interpretability	The extent to which qualitative meaning can be attached to quantitative scores or how differences in scores on the measure can be interpreted.	These criteria were based on Terwee et al. (2007) with some adaptations in line with Strauss et al. (2016). Terwee et al. (2007) require minimal important change to be defined. However, as this was not considered relevant to the measures in this review, consideration was instead given to how scale scores might be interpreted. **2:** Mean and standard deviation scores provided for at least four relevant subgroups AND indication of how scale scores might be interpreted; **1:** Mean and standard deviation scores provided for less than four relevant subgroups OR no indication of how scale scores might be interpreted provided; **0:** No information on interpretability.

Results

The systematic search identified 15 studies of eight measures. An overview is shown in Table 3. Five measured self-compassion, three measured other-compassion, one measured receiving compassion from others, and one measured other-compassion for other living things.

Review of Identified Measures

Table 4 provides an overview of participant demographic information. Table 5 provides an overview of the psychometric properties outlined in each paper. Each paper and measure are then described in greater detail. Measure quality ratings are shown in Table 6.

Table 3

Overview of Compassion Measures

Compassion Measure	Orientation of Compassion	Identified Papers	Structure Number of scales (number of items)	Scale	Scoring
Self-Compassion Scale (SCS)	Self-compassion	Cunha et al. (2016) Stolow et al. (2016) Kumlander et al. (2018) Muris et al. (2018)	6 subscales: (26) self-kindness (5) self-judgment (5) common humanity (4) isolation (4) mindfulness (4) over-identification (4)	1-5 (almost never to almost always)	Total = Σ (all items) or mean of subscale means Subscales = Σ (subscale items) or mean of subscale items (Self-judgement, isolation, over-identification = reverse scored)
Shortened Self-Compassion Scale –Adolescence (S-SCS-A)	Self-compassion	Muris et al. (2016)	3 subscales: (9) self-kindness (3) common humanity (3) mindfulness (3)	1-5 (never to always)	Total = Σ (all items) Subscales = Σ (items for each subscale)
Self-Compassionate Reactions Scale – Child (SCRS-C)	Self-compassion	Zhou et al. (2019)	4 vignettes with 6 items each 6 subscales (24) self-kindness (5) self-judgment (5) common humanity (4) isolation (3) mindfulness (3) over-identification (4)	1-6 (very unlikely to very likely)	Total = Σ (subscale means) Subscales = mean of subscale items (Self-judgement, isolation, over-identification = reverse scored)
Self-Compassion Scale – Child (SCS-C)	Self-compassion	Sutton et al. (2017)	6 subscales: (12) self-kindness (2) self-judgment (2) common humanity (2) isolation (2) mindfulness (2) over-identification (2)	1-5 (never to always)	Total = Σ (subscales) Subscales = Σ (items for each subscale) (Self-judgement, isolation, over-identification = reverse scored)

Compassionate Engagement and Action Scales – Adolescence (CEAS-A)	Self-compassion Compassion towards others Compassion from others	Cunha et al. (2021)	3 scales with 2 sections: (39) self-compassion (13) – engagement (8), action (5) compassion for others (13) – engagement (8), action (5) compassion from others (13) – engagement (8), action (5)	1-10 (never to always)	Total scale = Σ (all items for the scale) Sections: Σ (items for each section, excluding reverse coded items 3 and 7)
Compassion Scale – Child (CS-C)	Self-compassion Compassion towards others Compassion towards other living things	Nas and Sak (2021) Heidary et al. (2022)	3 scales: (20) compassion for others (9) self-compassion (5) compassion toward other living things (6)	1-5 (never to always)	Total scale = Σ (all items for the scale) Subscales = Σ (items for each subscale)
Self-Compassion Scale – Youth (SCS-Y)	Self-compassion	Neff et al. (2021) Karakasidou et al. (2021) Deniz et al. (2022) Nazari et al. (2022)	6 subscales: (26) self-kindness (5) self-judgment (5) common humanity (4) isolation (4) mindfulness (4) over-identification (4)	1-5 (almost never to almost always)	Total = mean of subscale means Subscales = mean of subscale items (Self-judgement, isolation, over-identification = reverse scored)
Compassion Scale – Adolescence (CS-A)	Compassion towards others	Sousa et al. (2022)	Subscales: (16) kindness (4) mindfulness (4) common humanity (4) indifference (4)	1-5 (almost never to almost always)	Total = mean of all items Subscales = mean of subscale items (Indifference items = reverse scored)

Table 4

Overview of Participant Demographic Information

Measure	Authors	Population (location/ language), sample size	Age/ school year	Gender	Ethnicity/ language	Socioeconomic status
SCS	Cunha et al. (2016)	Student sample (Portugal) Sample size: 3165	12 to 19 years (*M* = 15.49, *SD* = 1.59) 7th to 12th grade (*M* = 9.70, *SD* = 1.43)	53.8% female 46.2% male	Not reported	Not reported
SCS	Stolow et al. (2016)	Student sample (US) Sample size: 193	9 to 16 years (*M* = 13, *SD* = 2.4) 27.5% 5th grade (*M* = 9.9 years, *SD* = .61) 40% 8th grade (*M* = 12.7 years, *SD* = .58) 32.5% 11th grade (*M* = 16 years, *SD* = .56)	59% female 41% male	58.0% Caucasian 17.0% African American 14.5% Asian 6.0% Hispanic 4.0% Multi-ethnic 0.5% of other	Not reported
SCS	Kumlander et al. (2018)	Sample 1: Student sample (Finland) Sample size: 1725 Sample 2: Student sample (Finland) Sample size: 1497 (for replication)	Sample 1: 95% aged 15 to 17 years (M = 16.56, SD = 1.95) Sample 2: Not reported, but reported to be largely the same students	Sample 1: 50.3% female 48.4% male 1.3% other Sample 2: 51.3% female 47.0% male 1.7% other	Not reported	Not reported
SCS	Muris et al. (2018)	Student sample (Netherlands) Sample size: 130	15 to 19 years (*M* = 16.68, *SD* = .89) 49.2% higher general secondary education 50.8% pre-university education	66% female 44% male	Not reported	Not reported
S-SCS-A	Muris et al. (2016)	Student sample (Netherlands) Sample size: 132	12 to 17 years (*M* = 14.8, *SD* = 1.09) 16.7% low or middle level preparatory education	42% male 58% female	>90% from Dutch descent 100% had good mastery of Dutch language	Based on occupation of both parents 20.5% low 58.3% middle 21.2% high

			31.1% higher general continued education 49.2% pre-university secondary education			
SCRS-C	Zhou et al. (2019)	Sample 1: Student sample (China) Sample size: 161 Sample 2: Student sample (China) Sample size: 637 Sample 3: Student sample (China) Sample size: 77 (test-retest)	Sample 1: 9 to 12 years (*M* = 11.49, *SD* = .59) Sample 2: 9 to 12 years (*M* = 10.62, *SD* = 1.20) Sample 3: 9 to 12 years (*M* = 9.89, *SD* = .73)	Sample 1: 30% female 36% male 34% not given Sample 2: 47% female 51% male 2% not given Sample 3: 44% male 55% female 1% not given	100% Chinese	Not reported
SCS-C	Sutton et al. (2018)	Student sample (Canada) Sample size: 382	8 to 12 years (*M* = 11.3, *SD* = .90) 4th to 7th grade	50% female	(71% English as first language) 13% Cantonese 14% Other language 2% Filipino	Participants reported to be from a diverse range of socioeconomic statuses
CEAS-A	Cunha et al. (2021)	Sample 1: Student sample (Portugal) Sample size: 674 Sample 2: Student sample (Portugal) Sample size: 336 Sample 3: Student sample (Portugal) Sample size: 76 (test-retest)	Sample 1: 12 to 19 years (*M* = 14.88, *SD* = 1.67) Sample 2: 12 to 19 years (*M* = 15.48, *SD* = 1.62) Sample 3: 12 to19 years (*M* = 15.87, *SD* = 2.27)	Sample 1: 61% female 39% male Sample 2: 27% male 73% female Sample 3: 11% male 89% female	Not reported	Not reported

CS-C	Nas and Sak (2021)	Middle school and high school students (Turkey). Sample size: 756	12 to 18 years 12.3% age 12 14.9% age 13 15.6% age 14 15.7% age 15 16.1% age 16 13.6% age 17 11.6% age 18	52.4% female 47.6% male	Not reported	33% low 43.5% middle 23.5% high
CS-C	Heidary et al. (2022)	Junior high, and senior high school students (Iran) Sample size: 302	12 to 18 years (*M* = 15.85, *SD* = 7.1) 38% junior high	85% female	Not reported	Not reported
SCS-Y	Neff et al. (2021)	Sample 1: Middle school students (US) Sample size: 279 Sample 2: Middle school students (US) Sample size: 402 Sample 3: Middle school students (US) Sample size: 102 (test-retest) Sample 4: Middle school students (US) Sample size: 212	Sample 1: 11 to 15 years (*M* = 12.17, *SD* = .93) 42.2% 6th grade 32% 7th grade 25.7% 8th grade Sample 2: 11 to 15 years (*M* = 12.43, *SD* = .97) 34.8% 6th grade 30.6% 7th grade 28.9% 8th grade Sample 3: 11 to 14 years (*M* = 12.52, *SD* = 1.05) 48% 6th grade 43.1% 8th grade Sample 4: 11 to 14 years (*M* = 12.18, *SD* = 0.84) 27.4% 6th grade 42.9% 7th grade 28.3% 8th grade	Sample 1: 56.7% female Sample 2: 48.8% female Sample 3: 51% female Sample 4: 42.5% female	Sample 1: 35.3% White 30.5% Hispanic 11.2% Other 7.6% African American 7.6% Asian (88.3% English as first language) Sample 2: 47.3% White 17.2% Other 16.9% Hispanic 10.2% African American 7% Asian 0.2% Native American (74.4% English as first language) Sample 3: 54.9% White 14.7% Hispanic 9.8% Asian 9% Other 8.8% African American 1% Native American (82.4% English as first language)	Participants reported to be from socioeconomically diverse schools

					Sample 4: 80.2% White 7.1% Asian 3.8% Hispanic 3.8% Native American 1.9% African American (91.5% English as first language)	
SCS-Y	Karakasidou et al. (2021)	Community sample (Greece). Sample size: 193	8 to 14 years (*M* = 11.74, *SD* = 2.01)	51.3% male 48.7% female	100% White	Participants reported to be from socioeconomically diverse schools
SCS-Y	Deniz et al. (2022)	Student sample (Turkey). Sample size: 450	11 to 15 years (*M* = 13.09, *SD* = 1.59)	61.8% female	Not reported	Not reported
SCS-Y	Nazari et al. (2022)	Student sample (Persian). Sample size: 532	12 to 15 years (*M* = 13.57, *SD* = 1.01) 34% 7th grade 35.9% 8th grade 30.1% 9th grade	50.8% female	Not reported	Not reported
CS-A	Sousa et al. (2022)	Sample 1: Community adolescents (Portugal) Sample size: 658 Sample 2: Forensic sample (Portugal) Sample size: 183	Sample 1: 14 to 18 years Female (*M*= 16.02) Male (*M* = 15.75) Sample 2: 14 to 18 years (*M* = 15.96, *SD* = 1.04)	Sample 1: 37.8% male Sample 2: 100% male	Not reported	69% low 24.6% medium 6.4% high 62.3% low 31.1% medium 6.6% high

Note. **CEAS-A** = Compassionate Engagement and Actions Scales – Adolescence; **CS-A** = Compassion Scale – Adolescence; **CS-C** = Compassion Scale – Child; **SCS** = Self-Compassion Scale; **SCS-C** = Self-Compassion Scale – Child; **SCS-Y** = Self-Compassion Scale – Youth; **SCRS-C** = Self-Compassionate Reactions Scale – Child; **S-SCS-A** = Shortened Self-Compassion Scale – Adolescence

Table 5

Overview of Psychometric Properties

Measure	Authors	Content validity: -Factors captured* -Item generation (recipient/expert groups consulted?)	Proposed factor structure	Support for factor structure: type of analysis (factor structure found)	Internal consistency: -adequate sample size for factor analyses? -Cronbach's alpha/omega (total scale and subscales)	Test-retest reliability: *r* or ICC (time between testing)	Construct validity: correlation (Pearson's *r*) of compassion measure with related constructs	Floor/ ceiling effects	Interpretability: - subgroups tested for differences -mean and standard deviation provided for number of subgroups
SCS	Cunha et al. (2016)	4 factors (U, F, T and A) (assumed) Recipients = Unable to assess as paper outlining adaptation prior to psychometric paper not in English Experts = As above	Six factors represented under a single overarching construct	CFA (Six factors represented under a single overarching construct)	Yes (*N* = 3165) Total scale α = .88 Subscales: α = .70 to .79	Not reported	*SCS* EMWSS: *r* = .41; DASS-21: *r* =-.50 (depression), *r* = -.38 (anxiety), *r* = -.48 (stress) *SCS self-kindness* EMWSS: *r* = .34; DASS-21: -.21(depression), *r* = -.11 (anxiety), *r* = -.16 (stress) *SCS self-judgement* EMWSS: *r* = -.23; DASS-21: *r* = .44 (depression), *r* = .39 (anxiety), *r* = .47 (stress) *SCS common humanity* EMWSS: *r* = .25; DASS-21: -.08 (depression), N/A^{ns} (anxiety), -.05 (stress) *SCS isolation* EMWSS: *r* = -.31; DASS-21: *r* = .52 (depression), *r* = .39 (anxiety), *r* = .48 (stress) *SCS mindfulness*	No floor or ceiling effects observable from descriptive statistics and percentiles	Gender: Males had higher levels of self-compassion than females. Males also had higher levels of self-kindness and mindfulness than females, and females had higher levels of self-judgement, isolation, and over-identification than males. *M* and *SD:* 2 subgroups

							EMWSS: *r* = .29; DASS-21: *r* = -.23 (depression), *r* = -.16 (anxiety), *r* = -.20 (stress) *SCS overidentification* EMWSS: -.23; DASS-21: *r* = .48 (depression), *r* = .42 (anxiety), *r* = .52 (stress)		
SCS	Stolow et al. (2016)	4 factors (U, F, T and A) (assumed) Recipients = Reference not provided for paper adapting SCS so unable to assess Experts = As above	Not reported	PCA (Two factors)	Yes (*N* = 193) *Positive subscale:* α = .87 (total), α = .82 to .89 (grade subgroups) *Negative subscale:* α = .92 (total), α = .89 to .93 (grade subgroups)	Not reported	*SCS positive* CDI: *r* = -.15; CDEQ-SC: *r* = -.11^{ns}; SEQ: *r* = .23 *SCS negative* CDI: *r* = .58; CDEQ-SC: *r* = .67; SEQ: *r* = -.62	Not reported	Gender: Females scored higher on the SCS negative subscale than males. No gender differences for SCS positive. Age: Older participants scored higher on the SCS negative subscale. *M* and *SD:* 5 subgroups
SCS	Kumlander et al. (2018)	4 factors (U, F, T and A) Recipients = no Experts = no (items in original paper were)	Six factors represented under a single overarching construct or two factors	CFA (Two factors)	Yes (sample 1: *N* = 1725, re-tested with sample 2: *N* = 1497) Subscales: ω = .87 and .91	Not reported	*Self-compassion* RBDI: *r* = -.40 *Self-coldness* RBDI: *r* = .60 *Self-judgment* RBDI: *r* = .56 *Isolation* RBDI: *r* = .64 *Over-identification* RBDI: *r* = .53 *Self-kindness* RBDI: *r* = -.47	Not reported	Not reported

							Common humanity RBDI: *r* = -.29 *Mindfulness* RBDI: *r* = -.29		
SCS	Muris et al. (2018)	4 factors (U, F, T and A) Recipients = no Experts = no (items in original paper were)	Two factors	PCA (Two factors)	Yes (*N* = 130) Total scale α = .89 Subscales: α = .61 to .84 (α values for specific subscales not given)	Not reported	*SCS self-kindness* STAIC: *r* = -.38; CDI: *r* = -.53; UCL-A: *r* = .50 (active tackling), *r* = .07^{ns} (palliative reacting), *r* = -.07^{ns} (avoidance), *r* = .42 (social support seeking), *r* = -.47 (passive reacting), *r* = -.29 (expression of emotion), *r* = .41(reassuring thoughts) *SCS self-judgement* STAIC: *r* = .61; CDI: *r* = .58; UCL-A: *r* = -.25 (active tackling), *r* = .18 (palliative reacting), *r* = .19 (avoidance), *r* = -.25 (social support seeking), *r* = .56 (passive reacting), *r* = .25 (expression of emotion), *r* = -.11 (reassuring thoughts) *SCS common humanity* STAIC: *r* = -.19; CDI: *r* = -.32; UCL-A: *r* = .37 (active tackling), *r* = .13^{ns} (palliative reacting), *r* = .00^{ns} (avoidance), *r* = .22 (social support seeking), *r* = -.33 (passive reacting), *r* = -.23 (expression of emotion), *r* = .47 (reassuring thoughts) *SCS isolation* STAIC: *r* = .58; CDI: *r* = .53; UCL-A: *r* = -.25 (active tackling), *r* = -.02^{ns} (palliative reacting), *r* = .22 (avoidance), *r* = -.28 (social support seeking), *r* = .53 (passive reacting),	Not reported	Not reported

							$r = .17^{ns}$ (expression of emotion), $r = -.09^{ns}$ (reassuring thoughts) *SCS mindfulness* STAIC: $r = -.25$; CDI: $r = -.38$; UCL-A: $r = .48$ (active tackling), $r = .22$ (palliative reacting), $r = -.09^{ns}$ (avoidance), $r = .30$ (social support seeking), $r = -.36$ (passive reacting), $r = -.21$ (expression of emotion), $r = .35$ (reassuring thoughts) *SCS overidentification* STAIC: $r = .58$; CDI: $r = .49$; UCL-A: $r = -.25$ (active tackling), $r = -.06^{ns}$ (palliative reacting), $r = .09^{ns}$ (avoidance), $r = -.08^{ns}$ (social support seeking), $r = .56$ (passive reacting), $r = .26$ (expression of emotion), $r = -.19$ (reassuring thoughts)		
S-SCS-A	Muris et al. (2016)	4 factors (U, F, T and A) Recipients = yes Experts = yes	Three factors represented under a single overarching construct	PCA (Three factors)	Yes (N = 132) Total scale: α = .84 Subscales: α = .74 to .79	Not reported	*S-SCS-A total* $r = .44$ (SPPC), $r = .50$ (SEQ-C), $r = -.26$ (SCARED), $r = -.35$ (CDI) *S-SCS-A self-kindness* $r = .37$ (SPPC), $r = .32$ (SEQ-C), $r = -.12^{ns}$ (SCARED), $r = -.28$ (CDI) *S-SCS-A common humanity* $r = .17^{ns}$ (SPPC), $r = .28$ (SEQ-C), $r = -.19$ (SCARED), $r = -.12$ (CDI) *S-SCS-A mindfulness* $r = .54$ (SPPC), $r = .63$ (SEQ-C), $r = -.34$ (SCARED), $r = -.45$ (CDI)	Not reported	Gender: No differences for total sample. Females had lower levels of self-compassion than males in older adolescent sample (15-17 years). Age: No difference *M* and *SD:* 2 subgroups
SCRS-C	Zhou et al. (2019)	Unable to access scale Recipients = yes	Not reported	CFA (Six factors under two	Yes (N = 637)	Total: r = .46 Subscales: r = .58 to .61	*SCRS-C total* $r = .47$ (SAS), $r = .28$ (MAAS-C), $r = .60$ (RSES), $r = .03$ (DDDT)	Not reported	Not reported

		Experts = yes		overarching constructs)	Total scale: α = .81 Subscales: α = .43 to .73 (first order), α = .78 to .81 (second order) Subscales: α < .70 for 5/6 first order subscales: self-judgment, common humanity, isolation, mindfulness and overidentification	(6 weeks)	*SCRS-C compassionate reaction* r = .11^{ns} (SAS), r = .06^{ns} (MAAS-C), r = .28 (RSES), r = 06^{ns} (DDDT) *SCRS-C uncompassionate reaction* r = -.56 (SAS), r = -.34 (MAAS-C), r = -.58 (RSES), r = .01^{ns} (DDDT)		
SCS-C	Sutton et al. (2018)	4 factors (U, F, T and A) Recipients = no Experts = no (items in original paper were)	Two factors	CFA (Two factors)	Yes (N = 382) *Subscales:* α = .81 to .83	Not reported	*SCS-C positive* MAAS-C: r = .16; SDQ: r = .50 (general), r = .39 (school); RI: r = .45; SWLS-C: r = .40; PANAS-C: r = .42 (positive), r = -.09^{ns} (negative); SPQ: r = -.13 (anxiety), r = -.22 (depression); IRP: r = .42 (empathetic concern), r = .54 (perspective taking); SGQ: r = .60 *SCS-C negative* MAAS-C: r = -.41; SDQ: r = -.10^{ns} (general), r = -.05^{ns} (school); RI: r = -.39; SWLS-C: r = -.25; PANAS-C: r = -.16 (positive), r = .46 (negative); SPQ: r = .51 (anxiety), r = .43(depression); IRP: r = .21	Not reported	Not reported

							(empathetic concern), $r = .08^{ns}$ (perspective taking); SGQ: $r = .09^{ns}$		
CEAS-A	Cunha et al. (2021)	4 factors (R, F, T and A) Recipients = yes Experts = no (items in original paper were)	Three scales Self-compassion: Two first order, and two second order factors under overarching construct Compassion for others: Two factors under overarching construct Compassion from others: Two factors under overarching construct	CFA Self-compassion: Two first order, and two second order factors under overarching construct Compassion for others: Two factors under overarching construct Compassion from others: Two factors under overarching construct	Yes (N = 674) Total scales: α = .84 to .94 Subscales: α = .70 to .92	Total scales: ICC = .97 to .98 (1 month)	*CEAS-A self-compassion (SC) total* FSCSRS: r = .42 (self-reassurance), r = -.17 (self-criticism); SCS: r = .60 (positive), r = -.20 (negative); SLSS: r = .36 *CEAS-A compassion for others (CFO) total* FSCSRS: r = .40 (self-reassurance), $r = .05^{ns}$ (self-criticism); SCS: r = .39 (positive), $r = .05^{ns}$ (negative); SLSS: r = .24 *CEAS-A compassion from others (CfO) total* FSCSRS: r = .41 (self-reassurance), r = -.11 (self-criticism); SCS: r = .59 (positive), r = -.07 (negative); SLSS: r = .36	Not reported	Gender: *CEAS-A self-compassion scale*. Females had lower levels of compassion (actions factor) *CEAS-A compassion for others scale*. Females had higher levels of compassion (engagement and actions factors) *M* and *SD:* 2 subgroups
CS-C	Nas and Sak (2021)	3 factors (U, F and A) Recipients = yes Experts = yes	Not reported	EFA followed by CFA (Three factors)	Yes (N = 756) Total: α = .89 Subscales: α =.75 to .86	Not reported	Not reported	Not reported	Not reported
CS-C	Heidary et al. (2022)	3 factors (U, F and A) Recipients = yes Experts = yes	Three factors	CFA (Three factors)	Yes (N = 302) Subscales: α =.70 to .87	Not reported	ERQ-CA: r = .44; CAMM: r = .51; RSPWB: r = .61; STAI: r = .00 (linear); STAI: r = -.19 (non-linear)	Not reported	Not reported

SCS-Y	Neff et al. (2021)	4 factors (U, F, T and A) Recipients = yes Experts = yes	Six factors represented under a single overarching construct	CFA and ESEM (sample 1 and 2) ESEM (Six factors represented under a single overarching construct)	Yes (sample 1: *N* = 279, sample 2: *N* = 402) Total: α = .82 (sample 1) and α = .85 (sample 2) Subscales: α < .70 for 1/6 subscales in samples 1 (overidentification) and 2 (mindfulness)	Total: *r* = .83 Subscales: *r* = .51 to .71 (3 weeks)	CAMM: *r* = .47; CES-DC: *r* = -.53; SHS: *r* = .60; SWLS-C: *r* = .49; BRS: *r* = .65; PALS: *r* = .37 (mastery approach); -.18 (performance approach); *r* = -.38 (performance avoidance)	Not reported	Age: No difference (study 1, 2 and 4) Grade: Trend for self-compassion to decrease in higher grades but not significant (study 1 and 2). No difference (study 4). Gender: No difference (study 1). Males had higher levels of self-compassion (study 2 and 4) but not significant (study 2). Gender interaction: No interaction between gender and age, or gender and grade (study 1, 2 and 4). However, trend for males to score slightly higher than females, and for females to slightly decrease in self-compassion with age (study 2). *M* and *SD:* 6 subgroups (for each study)
SCS-Y	Karakasidou et al. (2021)	4 factors (U, F, T and A)	Six factors represented under a single	CFA (Six factors)	Yes (*N* = 193) Total: α = .64	Not reported	*SCS-Y total* SWLS*: r* = .30; BRS: *r* = .42; SPANE: *r* = -.35 (negative), *r* = .42 (positive); STAIC: *r* = -.19 (state), *r* = -.44 (trait); SHS: *r* = .36; DASS:	No floor or ceiling effects observable from normality	Not reported

	Recipients = no (items in original paper were) Experts = no (items in original paper were)	overarching construct	Subscales: not reported	*r* = -.27 (depression), *r* = -.23 (stress) *SCS-Y self-kindness* SWLS*: r* = .35; BRS: *r* = .27; SPANE: *r* = -.29 (negative), *r* = .38 (positive); STAIC: *r* = -.05^{ns} (state), *r* = -.25 (trait); SHS: *r* = .32; DASS: *r* = -.11^{ns} (depression), *r* = -.08^{ns} (stress) *SCS-Y self-judgment* SWLS*: r* = -.16; BRS: *r* = -.23 SPANE: *r* = .22 (negative), *r* = -.21 (positive); STAIC: *r* = .18 (state), *r* = .30 (trait); SHS: *r* = -.15; DASS: *r* = .19 (depression), *r* = .21 (stress) *SCS-Y common humanity* SWLS*: r* = .01^{ns}; BRS: *r* = -.10^{ns}; SPANE: *r* = .04^{ns} (negative), *r* = .12 ^{ns} (positive); STAIC: *r* = .21 (state), *r* = .09^{ns} (trait); SHS: *r* = .06 ^{ns}; DASS: *r* = .12^{ns} (depression), *r* = .15 (stress) *SCS-Y isolation* SWLS: *r* = -.14^{ns}; BRS: *r* = -.31; SPANE: *r* = .25 (negative), *r* = -.11^{ns} (positive); STAIC: *r* = .25 (state), *r* = .36 (trait); SHS: *r* = -.17; DASS: *r* = .30 (depression), *r* = .25 (stress) *SCS-Y mindfulness* SWLS*: r* = .27; BRS: *r* = .24; SPANE: *r* = -.19 (negative), *r* = .39 (positive); STAIC: *r* = -.12^{ns} (state), *r* = -.24 (trait); SHS: *r* = .31; DASS: *r* = -.13^{ns} (depression), *r* = -.13^{ns} (stress)	data and percentile ranks

							SCS-Y overidentification SWLS*:* r = -.04 [ns]; BRS: r = -.36; SPANE: r = .19 (negative), r = -.14[ns] (positive); STAIC: r = .21 (state), r = .32 (trait); SHS: r = -.12[ns]; DASS: r = .24 (depression), r = .22 (stress)		
SCS-Y	Deniz et al. (2022)	4 factors (U, F, T and A) Recipients = no (items in original paper were) Experts = no (items in original paper were)	Six factors represented under a single overarching construct	CFA (Six factors represented under a single overarching construct)	Yes (N = 450) Total: α = .79 Subscales: not reported	Not reported	Reported to be positively related to resilience and well-being, and negatively related to depression but examined by network analysis, and r values not given.	Not reported	Not reported
SCS-Y	Nazari et al. (2022)	4 factors (U, F, T and A) Recipients = yes Experts = yes	Six factors represented under a single overarching construct	ESEM (Six factors represented under a single overarching construct)	Yes (N = 532) Total: α = .88 Subscales: α = .80 to .90	Total: ICC = .60 (4 weeks)	*SCS-Y total* Examined with SEM analysis and r values not reported. *SCS-Y self-kindness* PHQ-2: r = -.37; BFI-10: r = -.32; BRS: r = .42; YLOT: r = .30 *SCS-Y self-judgement* PHQ-2: r = .32; BFI-10: r = .44; BRS: r = -.39; YLOT: r = -.24 *SCS-Y common humanity* PHQ-2: r = -.22; BFI-10: r = -.14; BRS: r = .24; YLOT: r = .22 *SCS-Y isolation* PHQ-2: r = .28; BFI-10: r = .25; BRS: r = -.32; YLOT: r = -.29 *SCS-Y mindfulness* PHQ-2: r = -.34; BFI-10: r = -.39; BRS: r = .38; YLOT: r = .27 *SCS-Y overidentification*	No floor or ceiling effects observable from normality data	Gender: Males had higher levels of self-compassion

							PHQ-2: *r* = .22; BFI-10: *r* = .16; BRS: *r* = -.23; YLOT: *r* = -.18		
CS-A	Sousa et al. (2022)	4 factors (R, U, F and A) Recipients = no Experts = yes (items in original paper also were)	Four factors represented under a single overarching construct	CFA (Four factors represented under a single overarching construct)	Yes (sample 1: *N* = 658, sample 2: *N* = 183) Total: α = .86 (sample 1), α = .88 (sample 2) Subscales: α =.63 to .80 (sample 1), α =.71 to .80 (sample 2)	Not reported	*CS-A total* OASB-A: *r* = -.22; FSCRS self-criticism subscales: *r* = -.05^{ns} (inadequate self), *r* = -.13 (hated self); FSCRS reassured subscale: *r* = .19; SCS-total: *r* = .10; SCS-subscales: *r* = .13 (self-kindness), *r* = .24 (common humanity), *r* = .15 (mindfulness), *r* = -.02^{ns} (self-judgement), *r* = -.04^{ns} (isolation), *r* = .01^{ns} (over identification) *CS-A kindness* OASB-A: *r* = -.14; FSCRS self-criticism subscales: *r* = -.02^{ns} (inadequate self), *r* = -.06^{ns} (hated self); FSCRS reassured subscale: *r* = .14; SCS-total: *r* = .03^{ns} SCS-subscales: *r* = .07^{ns} (self-kindness), *r* = .17 (common humanity), *r* = .10 (mindfulness), *r* = .03^{ns} (self-judgement), *r* = .04^{ns} (isolation), *r* = .05^{ns} (over identification) *CS-A common humanity* OASB-A: *r* = -.12; FSCRS self-criticism subscales: *r* = -.01^{ns} (inadequate self), *r* = -.10 (hated self); FSCRS reassured subscale: *r* = .25; SCS-total: *r* = .15 SCS-subscales: *r* = .17 (self-kindness), *r* = .30 (common humanity), *r* = .20 (mindfulness), *r* = -.03^{ns} (self-judgement), *r* = -.07^{ns} (isolation), *r* = -.02^{ns} (over identification)	Not reported	Gender: Females in community sample had higher levels of compassion when compared to males. Female scored higher on all subscales, except indifference, where males had higher levels. Community vs forensic sample: Males in the forensic sample had lower levels of compassion towards others than males in the community sample. They also had lower levels of mindfulness. Number of diagnoses: Indifference subscale associated with number of diagnoses. *M* and *SD:* 3 subgroups

				CS-A mindfulness OASB-A: r = -.16; FSCRS self-criticism subscales: r = -.01^{ns} (inadequate self), r = -.10 (hated self); FSCRS reassured subscale: r = .15; SCS-total: r = .09 SCS-subscales: r = .12 (self-kindness), r = .21 (common humanity), r = .19 (mindfulness), r = .03^{ns} (self-judgement), r = -.02^{ns} (isolation), r = -.01^{ns} (over identification) *CS-A indifference* OASB-A: r = .21; FSCRS self-criticism subscales: r = .09 (inadequate self), r = .14 (hated self); FSCRS reassured subscale: r = -.10; SCS-total: r = -.04^{ns} SCS-subscales: r = -.04^{ns} (self-kindness), r = -.08 (common humanity), r = -.01^{ns} (mindfulness), r = -.03^{ns} (self-judgement), r = .07^{ns} (isolation), r = -.01^{ns} (over identification)

Note. ^{ns} = non-significant; **CEAS-A** = Compassionate Engagement and Actions Scales – Adolescence; **CS-A** = Compassion Scale – Adolescence; **CS-C** = Compassion Scale – Child; **SCS** = Self-Compassion Scale; **SCS-C** = Self-Compassion Scale – Child; **SCS-Y** = Self-Compassion Scale – Youth; **SCRS-C** = Self-Compassionate Reactions Scale – Child; **S-SCS-A** = Shortened Self-Compassion Scale – Adolescence

R = recognising suffering; **U** = understanding the universality of suffering; **F** = feeling for the person suffering; **T** = tolerating uncomfortable feelings; **A** = acting or being motivated to act to alleviate suffering (elements of compassion captured from Strauss et al.'s 2016 definition)

BFI-10 = Brief 10-Item Big Five Inventory (Rammstedt & John, 2007); **BRS** = Brief Resilience Scale (Smith et al., 2008); **CAMM** = Child and Adolescent Mindfulness Measure (Greco et al., 2005); **CDEQ-SC** = Children's Depressive Experiences Questionnaire – self-criticism subscale (Abela & Taxel, 2001**); CDI** = Children's Depression Inventory (Kovacs, 1981); **CES-DC** = The Center for Epidemiological Studies Depression Scale for Children (Faulstich et al., 1986); **DASS** = Depression Anxiety Stress Scales: (Stalikas & Flora, 2012); **DASS-21** = Depression, Anxiety and Stress Scales (Lovibond & Lovibond, 1995; Portuguese version: Pais-Ribeiro et al., 2004); **DDDT** = Dirty Dozen Dark Triad (Jonason & Webster, 2010); **DERS-SF** = Difficulties in Emotion Regulation Scale – Short Form (Kaufman et al., 2016); **EMWSS** = Early Memories of Warmth and Safeness Scale (Richter et al., 2009; Portuguese version for adolescents: Cunha et al., 2014); **ERQ-CA** = Emotion Regulation Questionnaire-Children and Adolescents (Gullone & Taffe, 2012); **FSCRS** = The Forms of Self-Criticizing/Attacking & Self-Reassuring Scale (Castilho & Pinto–Gouveia, 2011); **FSCS**R = The Forms of Self-Criticizing and Self-Reassuring Scale (Gilbert et al., 2004, Portuguese version: Silva & Salvador, 2010); **IRP** = Interpersonal Reactivity Index (Davis 1983; Oberle et al., 2010); **MAAS-C** = Mindful Attention Awareness Scale – Children (Lawlor et al., 2014); **OASB-A** = Other as Shamer Scale Brief – Adolescent version (Cunha et al., 2015); **PALS** = Patterns of Adaptive Learning *Scales* (Midgley et al., 1998); **PANAS-C** = Positive and Negative Affect Schedule for Children (Laurent et al., 1999); **PHQ-2** = Patient Health Questionnaire (Kroenke et al., 2003); **RBDI** = Revised Beck Depression Inventory (Finnish modification, Kaltiala-Heino et al., 1999); **RI** = Resiliency Inventory – optimism subscale (Song, 2003); **RSES** = 10-item Rosenberg Self-Esteem

Scale (Chinese version) (Rosenberg 1965); **RSPWB** = Ryff Scale Psychological Wellbeing (Khanjani et al., 2014); **SAS** = Self-Acceptance Scale (Cong & Gao, 1999); **SCARED** = Screen for Child Anxiety Related Emotional Disorders (Birmaher et al. 1997); **SCS** = Self-Compassion Scale (Cunha et al., 2016); **SDQ** = Self-Description Questionnaire (Marsh, 1988); **SEQ** = Self-Esteem Questionnaire (Rosenberg, 1965); **SEQ-C** = Self-Efficacy Questionnaire for Children (Muris, 2001); **SGQ** = Social Goals Questionnaire – prosocial goals subscale (Wentzel, 1993); **SHS** = Subjective Happiness Scale (Lyubomirsky & Lepper, 1999); **SLSS** = Students' Life Satisfaction Scale (Marques et al., 2007); **SPANE** = Scale of Positive and Negative Experience (Diener et al., 2010); **SPPC** = Self-Perception Profile for Children (Harter, 1985); **SPQ** = Seattle Personality Questionnaire for Young School-Aged Children – anxious and depressive symptoms subscales (Kusche et al., 1988); **STAI** = State-Trait Anxiety Inventory; **STAIC** = State-Trait Anxiety Inventory for Children (Spielberger, 1973); **SWLS** = Life Satisfaction Scale (Stalikas & Lakioti, 2012); **SWLS-C** = Satisfaction with Life Scale – Children (Gadermann, 2009); **UCL-A** = The Utrecht Coping List for Adolescents (Bijstra et al., 1994); **YLOT** = Youth Life Orientation Test (Ey et al., 2005)

Table 6

Quality Ratings for Measures

Measure	Content validity	Factor structure	Internal consistency	Test-retest reliability	Construct validity	Floor/ ceiling effects	Interpret ability	Total
CEAS-A	0	2	2	2	2	0	1	9
SCS	0	1	2	0	1	1	2	7
SCS-Y	1	1	1	0	1	1	2	7
CS-C	1	2	2	0	2	0	0	7
CS-A	0	2	1	0	1	0	1	5
SCS-C	0	2	2	0	0	0	0	4
S-SCS-A	1	0	2	0	0	0	1	4
SCRS-C	1	0	1	0	0	0	0	2

Note. Rating: 0 = criterion not met/insufficient data to rate; 1 = criterion partially met; 2 = criterion fully met. **CEAS-A** = Compassionate Engagement and Actions Scales – Adolescence; **CS-A** = Compassion Scale – Adolescence; **CS-C** = Compassion Scale – Child; **SCS** = Self-Compassion Scale; **SCS-C** = Self-Compassion Scale – Child; **SCS-Y** = Self-Compassion Scale – Youth; **SCRS-C** = Self-Compassionate Reactions Scale – Child; **S-SCS-A** = Shortened Self-Compassion Scale – Adolescence

Self-Compassion Scale (SCS)

The SCS was developed by Neff (2003b) to assess self-compassion in adults. It consists of 26 items on a 5-point response scale (almost never-almost always) and has six subscales (self-kindness, mindfulness, common humanity, self-judgment, isolation, over-identification). Four papers examined psychometric properties of the SCS: Cunha et al. (2016), Stolow et al. (2016), Kumlander et al. (2018), and Muris et al. (2018).

Population. Cunha et al.'s (2016) sample included 3165 young people aged 12-19 from Portugal (*M*=15.49, 53.8% female) and Stolow et al.'s (2016) sample included 193 young people aged 9-16 from the US (*M*=13.00, 59% female, 58% Caucasian). Kumlander et al.'s (2018) sample included 1725 adolescents from Finland, with 75% aged 15-17 (*M*=16.56, 50.3% female). Muris et al.'s (2018) sample included 130 young people aged 15-

19 from the Netherlands (*M*=16.68, 66% female). No papers reported SES, and only Stolow et al. (2016) reported ethnicity.

Content Validity. Cunha et al. (2016) used the Portuguese version (Castilho et al., 2015) of Neff's (2003b) SCS, adapted for adolescents (Cunha et al., 2013). It was not possible to assess if experts/recipients were consulted on items, as the paper outlining adaptation was not published in English. Stolow et al. (2016) reported using a revised child-suitable version of the SCS, stating original meaning was maintained whilst ensuring items could be understood by younger children. However, no reference was provided, and it was not possible to assess the items used. The SCS was translated from English to Finish for Kumlander et al.'s (2018) study and no adaptations were reported by Muris (2018).

Experts and young people were not consulted on items for any papers. Items related to 4/5 elements of compassion (not recognising). Whilst not possible to assess items used in two papers, the aforementioned was assumed. 0/2 was given for content validity.

Factor Structure and Reliability. Cunha et al. (2016) conducted Confirmatory Factor Analysis (CFA), which supported the use of an overall self-compassion score and six subscale scores, congruent with the adult SCS (Neff, 2003b) and Neff's (2003a) conceptualisation of compassion.

Stolow et al. (2016) conducted Principal Component Analysis (PCA), yielding two factors. The SCS-positive factor comprised of items from the positive subscales and the SCS-negative factor comprised of items from the negative subscales. Neither EFA nor CFA were conducted.

Kumlander et al. (2018) conducted CFA which supported the six-factor model, and two-factor model. However, high correlations among the three positive and three negative factors for the six-factor model showed strong multicollinearity, questioning the extent to which the six factors measured separate constructs. Therefore, use of two factors (self-

compassion and self-coldness) was supported, and use of six subscales or total self-compassion score was not recommended. Findings were replicated in a second sample.

Muris et al. (2018) conducted joint PCA on all questionnaire data. Two factors emerged. The positive subscales loaded on a factor also composed of adaptive coping styles, and negative subscales loaded on a factor with symptoms of mental health difficulties. Whilst positive subscales were considered representative of self-compassion, they concluded negative subscales should be removed as they are indicators of vulnerability and inflate the relationship between self-compassion and mental health difficulties. Use of total score including negative subscales was cautioned.

Cunha et al. (2016) found good internal consistency for the total SCS (α=.88), and acceptable internal consistency for subscales (α=.70 to .79). Kumlander et al. (2018) found good internal consistency for the two factors (ω=.87, .91). Stolow et al. (2016) found good-excellent internal consistency for the total positive and negative subscales (α=.87, .92) for the total sample, and for each school grade (α=.82 to .93). Muris et al. (2018) found internal consistency was good for the total scale (α=.89) and questionable-good for subscales (α=.61 to .84). No paper reported test-retest reliability. 1/2 was given for factor structure, 2/2 for internal consistency, and 0/2 for test-retest reliability.

Construct Validity and Interpretability. As hypothesised by Cunha et al. (2016), the SCS was positively associated with early memories of warmth and safeness, and negatively associated with depression, anxiety, and stress. These were medium effects, and one correlation was $r \geq .50$. Hypotheses were not provided for subscales. Positive subscales were positively associated with early memories of warmth and safeness, and negatively associated with depression, anxiety (except common humanity), and stress. Negative subscales were positively associated with depression, anxiety, and stress, and negatively associated with early memories of warmth and safeness. Effects for subscales were small-

medium.

Stolow et al. (2016) did not specify hypotheses for construct validity. The negative subscale was positively associated with depression and self-criticism, and negatively associated with self-esteem. The positive subscale was negatively associated with depression and positively associated with self-esteem, and not associated with self-criticism. Effects were small-large, and three correlations were $r \geq .50$.

As hypothesised, Kumlander et al. (2018) found the self-compassion factor was negatively associated with depression, and the self-coldness factor was positively associated with depression. Positive and negative subscales were negatively and positively associated with depression, respectively. Effects were medium-large and four correlations were $r \geq .50$.

Muris et al's (2018) results were largely as hypothesised. Positive subscales were positively associated with adaptive coping and negatively associated with symptoms of anxiety and depression. Negative subscales were positively associated with symptoms of anxiety and depression and less helpful coping strategies. Effects were small-large, and ten correlations were $r \geq .50$.

Cunha et al. (2016) provided means and standard deviations for total and subscale scores for the total sample, and males and females. Subgroup analyses showed males had higher levels of self-compassion, self-kindness, and mindfulness than females. Females had higher levels of self-judgement, isolation, and over-identification than males. Descriptive statistics and percentiles indicated no floor/ceiling effects.

Stolow et al. (2016) provided means and standard deviations for subscale scores for the total sample and by school grade and gender. Females and older participants scored higher on the negative subscale than males and younger participants, respectively. There were no gender differences for the positive subscale. Interpretability was not facilitated by Kumlander et al. (2018) or Muris et al. (2018). Only Cunha et al. (2016) provided data which

indicated floor/ceiling effects were not present. 1/2 was given for construct validity and floor/ceiling effects, and 2/2 for interpretability.

Summary. The SCS was rated 7/14. Experts nor recipients were consulted for any paper, and the recognising element of compassion was not captured. Evidence for the factor structure was mixed, and two papers did not conduct EFA/CFA. Internal consistency was questionable-excellent, and test-retest was not conducted. There was some evidence for construct validity, subgroup comparisons were conducted, and floor/ceiling effects were not explicitly assessed.

Shortened Self-Compassion Scale–Adolescence (S-SCS-A)

The S-SCS-A consists of 9 self-report items, on a 5-point response scale (never-always). The S-SCS-A has the three subscales (self-kindness, common humanity, mindfulness).

Population. Muris et al.'s (2016) sample included 132 Dutch adolescents aged 12-17 (M=14.8, 58% female), from socioeconomically diverse backgrounds.

Content Validity. Items from the S-SCS-A were modified from the SCS (Neff, 2003b), guided by three young people aged 12-15 with varied educational levels. They identified difficult items, and three psychologists modified items. Items related to 4/5 elements of compassion (not recognising). 1/2 was given for content validity.

Factor Structure and Reliability. PCA yielded three factors (self-kindness, common humanity, mindfulness), with 8/9 items loading most substantially on their intended factor. EFA nor CFA were conducted. Internal consistency was good for the total scale (α=.84), and acceptable for subscales (α=.74 to .79). Test-retest reliability was not examined. 0/2 was given for factor structure and test-retest reliability and 2/2 given for internal consistency.

Construct Validity and Interpretability. Vague predictions were made for a link between self-compassion mental health problems. The S-SCS-A was positively associated

with self-esteem and self-efficacy, and negatively associated with anxiety and depression, with small-medium effects. Subscales were positively associated with self-esteem (except common humanity) and self-efficacy, and negatively associated with anxiety (except self-kindness) and depression, with small-large effects. Three correlations were $r \geq .50$.

Means and standard deviations for total and subscale scores were provided for the total sample, and males and females. No differences for gender or age were found. However, when older (15-17) and younger (13-14) adolescents were analysed separately, females had lower self-compassion than males in the older sample. Floor/ceiling effects were not assessed. 0/2 was given for construct validity and floor/ceiling effects, and 1/2 given for interpretability.

Summary. The S-SCS-A was rated 4/14. Experts and the target group were consulted on items, but the recognising element of compassion was not captured. Whilst PCA yielded three factors, EFA/CFA were not conducted. Internal consistency was good for the total scale and acceptable for subscales, but test-retest was not conducted. Despite some evidence for construct validity, predefined hypotheses were not outlined. Interpretability was facilitated, but floor/ceiling effects were not assessed.

Self-Compassionate Reactions Scale–Child (SCRS-C)

The SCRS-C consists of four vignettes and 24-items (6 subscales: self-kindness, self-judgment common humanity, isolation, mindfulness, over-identification). Vignettes are written in simple sentences, followed by 6-items describing possible reactions. Items are rated on a 6-point response scale (almost never-almost always).

Population. Zhou et al. (2019) piloted the SCRS-C with 161 children (M=11.49, 36% male), and examined the factor structure with 637 children (M=10.62, 51% male) and test-retest reliability with a subset of 77 children. All children were Chinese, aged 9-12, and attended school in China. Information about SES was not reported.

Content Validity. To inform vignettes, primary school teachers were interviewed, and children rated the frequency of stressful situations in the classroom. Children were interviewed about vignette situations to help inform items. Experts in compassion research evaluated the meaning of items (consistency with definition of self-compassion) and appropriateness of language for children. Items related to 4/5 elements of compassion (not recognising). 1/2 was given for content validity.

Factor Structure and Reliability. CFA was conducted but EFA was not conducted beforehand. Whilst items were developed to be consistent with Neff's (2003a) definition, Zhou et al. (2019) did not make explicit a proposed factor structure for this new scale. A two second-order factor model (compassionate reactions and uncompassionate reactions) with six first-order factors (self-kindness, common humanity, mindfulness, self-judgment, isolation, and over-identification) best fit the data. 0/2 was given for factor structure, as EFA was not conducted, and the factor structure of this newly developed scale was not proposed before CFA.

Internal consistency was good for the total scale (α=.81), acceptable-good for second-order subscales (α=.78 to .81) and unacceptable-acceptable for first-order subscales (α=.43 to .73). Only the self-kindness subscale reached an acceptable value. Test-retest reliability was poor for the total score (r=.46), and questionable for subscales (r=.58 to .61). 1/2 was given for internal consistency and 0/2 for test-retest reliability.

Construct Validity and Interpretability. Predefined hypotheses were not outlined. The SCRS-C total had positive associations with mindfulness, self-acceptance, and self-esteem. The compassionate reactions scale was positively associated with self-esteem but not mindfulness. The uncompassionate reactions scale was negatively associated with self-esteem, self-acceptance, and mindfulness. There were no associations with narcissism, which was used to assess discriminant validity. Overall, effects were small-large, and three

correlations were $r \geq .50$. Interpretability was not facilitated, and floor/ceiling effects were not examined. 0/2 was given for construct validity, interpretability, and floor/ceiling effects.

Summary. The SCRS-C was rated 2/14. Experts and the target group were consulted on items, but the recognising element of compassion was not captured. EFA was not conducted, nor was a factor structure proposed before CFA. CFA supported the use of two second-order factors, with six first-order factors. Test-retest reliability was poor for the total score and questionable for subscales, and internal consistency was good for the total scale, and unacceptable and acceptable for first and second-order subscales, respectively. There was some evidence for construct validity, but predefined hypotheses were not outlined. Interpretability was not facilitated, and floor/ceiling effects were not assessed.

Self-Compassion Scale–Child (SCS-C)

Sutton et al. (2018) developed the SCS-C by modifying the SCS-Short Form (Raes et al., 2011), which has primarily been used with adults. The SCS-C consists of 12-items, rated on a 5-point response scale (never-always), including two items from each of the six SCS subscales.

Population. Sutton et al.'s (2018) sample included 382 young people from Canada aged 8-12 (M=11.3, 50% female, 71% English as first language).

Content Validity. Language of SCS-SF items was altered to be developmentally appropriate, but experts nor recipients were consulted. Items related to 4/5 elements of compassion (not recognising). 0/2 was given for content validity.

Factor Structure and Reliability. CFA supported the use of a two-factor model as hypothesised, with positively and negatively worded self-compassion items forming two subscales (positive and negative). Internal consistency was good for the two subscales (α=.81, .83). Test-retest reliability was not assessed. 2/2 was given for factor structure and internal consistency, and 0/2 for test-retest reliability.

Construct Validity and Interpretability. Whilst associations were reported to be in expected directions and an aim was to see if the SCS-C related to other constructs in line with previous research, clearly predefined hypotheses were not outlined. The positive subscale was positively associated with self-concept, optimism, empathetic-related responding, prosocial goals, life satisfaction, and mindfulness, and negatively associated with depression and anxiety. The negative subscale was negatively associated with mindfulness, optimism, life satisfaction, and positive affect, and positively associated with negative affect, depression, anxiety, and empathic concern, but not associated with self-concept, perspective-taking, or prosocial goals. Effects were small-large, and three correlations were $r \geq .50$. Interpretability was not facilitated, and floor/ceiling effects were not examined. 0/2 was given for construct validity, interpretability, and floor/ceiling effects.

Summary. The SCS-C was rated 4/14. Experts and recipients were not consulted, and the recognising element of compassion was not captured. CFA supported the two-factor structure and there was some evidence for construct validity, but predefined hypotheses were not outlined. Internal consistency was good, but test-retest reliability and floor/ceiling effects were not examined, and interpretability not facilitated.

Compassionate Engagement and Action Scales–Adolescence (CEAS-A)

The CEAS are three self-report scales assessing self-compassion (SC), compassion for others (CFO), and the ability to receive compassion from others (CfO). Each has two sections: 1) compassionate engagement (8 items); and 2) compassion action (5 items). The CEAS-A use a 10-point response scale (never-always).

Population. The main sample was 674 school students in Portugal, aged 12-19 (M=14.88, 61% female). Construct validity was assessed with a subsample of 336 participants (M=15.48, 73% female). Test-retest reliability was assessed with 76 participants (M=15.87, 89% female).

Content Validity. Cunha et al. (2021) adapted the adult version of the CEAS (Gilbert et al., 2017) to use with young people. Items were discussed with a group of adolescents (*N*=18) and revised to make them more understandable for adolescents. However, experts were not consulted. Items related to 4/5 elements of compassion (not universality). 0/2 was given for content validity.

Factor Structure and Reliability. CFA supported the factor structure of the CEAS-A found for the adult version, including two distinct processes:1) engagement with suffering, 2) an action component to alleviate or prevent suffering. The three-order factor model was a very good fit. The higher-order factor self-compassion included two second-order factors: the engagement and actions subscales. The engagement subscale comprised the sensitivity to suffering and engagement with suffering dimensions. However, the authors noted that the model fit resulted from error term correlations between two pairs of items of the actions subscale, which they suggested might be related to similar phrasing in the Portuguese version of items 4 and 5. For the CFO and CfO scales, a higher-order factor encompassed two first-order factors: the engagement and actions subscales. The model presented a good fit to the data, after removal of item 4 on the engagement subscale, for CFO.

Cunha et al. (2021) found good-excellent internal consistency for the total scales (α=.84 to .94), acceptable-excellent internal consistency for subscales (α=.70 to .92) and excellent test-retest reliability for the three total scales (ICC=.97 to .98). 2/2 was given for factor structure, internal consistency, and test-retest reliability.

Construct Validity and Interpretability. Congruent with hypotheses, the CEAS-A scales were positively correlated with one another, and had positive associations with self-reassurance, life satisfaction, and the self-compassion scale positive factor, with small-large effects. In relation to discriminant validity, Cunha et al. (2021) reported that correlations between the CEAS-A scales and negative variables were weaker than positive variables. SC

and CfO scales had negative associations with the self-compassion negative factor and self-criticism, with small effects. Ten correlations were $r \geq .50$. 2/2 was given for construct validity.

Means and standard deviations were reported for the total sample, males, and females for total and subscale scores. Subgroup analyses were conducted. Females scores higher than males on the CFO scale, and lower than males on the SC scale. Floor/ceiling effects were not examined. 1/2 was given for interpretability, and 0/2 for floor/ceiling effects.

Summary. The CEAS-A was rated 9/14. Whilst respondents were consulted, experts were not, and the understanding the universality of suffering element of compassion was not captured by items. CFA supported the proposed factor structure, and internal consistency and test-retest reliability were good. There was evidence for construct validity and interpretability was facilitated. Floor/ceiling effects were not assessed.

Compassion Scale–Child (CS-C)

Nas and Sak (2021) developed the CS-C, a measure of self-compassion and other-compassion. The CS-C consists of 20 self-report items with a 5-point response scale (never-always). One paper (Heidary et al., 2020) validated the CS-C.

Population. Nas and Sak's (2021) sample included 756 Turkish young people aged 12-18 (M=not reported, 52.4% female) with varied SES. Heidary et al. (2022) validated the CS-C with 302 Iranian young people aged 12-18 (M=15.85, 85% female). Neither provided information on ethnicity.

Content Validity. Initial items selected by Nas and Sak (2021) were based on a review of key literature, including the measurement of compassion. Teachers and experts were consulted, and adjustments made following feedback. The measure was piloted in schools with students representative of the target age group. Minor adjustments were made accordingly. Heidary et al. (2022) also consulted students and experts in the field and

retranslated one item.

Items related to 3/5 elements of compassion (universality, feeling, acting). Around a third of items relate to compassion towards other living things (e.g., environment and animals) and this was the only measure to include this orientation of compassion. 1/2 was given for content validity.

Factor Structure and Reliability. EFA yielded a three-factor structure (compassion toward other people, compassion toward oneself, compassion toward other living things). CFA indicated the three-factor structure was an acceptable fit. CFA by Heidary et al. (2022) supported the three-factor structure.

Nas and Sak (2021) reported good internal consistency for the total scale (α=.89), and acceptable-good internal consistency for subscales (α=.75 to .86). Heidary et al. (2022) did not report internal consistency for the total scale, but subscales were acceptable-good (α=.70 to .87). Neither paper assessed test-retest reliability. 2/2 was given for factor structure and internal consistency, and 0/2 for test-retest reliability.

Construct Validity and Interpretability. Construct validity was not examined by Nas and Sak (2021). Congruent with hypotheses, Heidary et al. (2022) found medium-large positive associations with emotion regulation, mindfulness, and wellbeing. Two correlations were $r \geq .50$. In relation to discriminant validity, they predicted the CS-C would correlate negatively with anxiety and found a negative non-linear association. A rating of 2/2 was given for construct validity. Neither paper facilitated interpretability nor examined floor/ceiling effects. Both criterions received 0/2.

Summary. The CS-C was rated 7/14. Experts and the target group were consulted on items but recognising and tolerating elements of compassion were not captured. The three-factor structure was deemed acceptable, and internal consistency was good-acceptable. There was evidence for construct validity, but interpretability was not facilitated, and test-retest

reliability and floor/ceiling effects were not assessed.

Self-Compassion Scale–Youth (SCS-Y)

Neff et al. (2021) developed and validated a youth version of the SCS. The SCS-Y assesses self-compassion and consists of 17 self-report items with a 5-point response scale (almost never-almost always). The SCS-Y has six subscales (self-kindness, self-judgment, common humanity, isolation, and over-identification). Three papers validated the SCS-Y (Karakasidou et al., 2021; Deniz et al., 2022; Nazari et al., 2022).

Population. Neff et al. (2021) developed the SCS-Y with 279 adolescents aged 11-15 (*M*=12.17, 56.7% female), cross-validated the factor structure in a second sample of 402 adolescents aged 11-15 (*M*=12.43, 48.8% female), examined test re-test reliability in a subset of 102 adolescents aged 11-14 (*M*=12.52, 51% female) and examined construct validity with 212 adolescents aged 11-14 (*M*=12.18, 42.5% female). All were school samples in the US. Participants were reported to be from socioeconomically diverse schools and the majority identified as White. Karakasidou et al. (2021) validated the SCS-Y with 193 Greek young people aged 8-14 (*M*=11.69, 51.3% male, 100% White), reported to be from socioeconomically diverse schools. Deniz et al. (2022) validated the SCS-Y with 450 Turkish adolescents aged 11-15 (*M*=13.09, 61.8% female) and Nazari et al. (2022) with 532 Persian adolescents aged 12-15 (*M*=13.57, 50.8% female).

Content Validity. Neff et al. (2021) developed potential items based on the authors' expertise in cognitive development. A small number of early adolescents and middle school teachers were also consulted. Karakasidou et al. (2021) and Deniz et al. (2022) translated the SCS-Y to Greek and Turkish, respectively, but did not consult with experts or respondents. Nazari et al. (2022) reviewed translated items (Persian) with an expert and students from the target sample. Items related to 4/5 elements of compassion (not recognising).1/2 was given for content validity.

Factor Structure and Reliability. Neff et al. (2021) conducted bifactor exploratory structural equation modelling (ESEM) which supported use of an overall self-compassion score and six subscale scores and was cross validated in a second sample. Support for this factor structure was provided by Nazari et al. (2021) (ESEM) and Deniz et al. (2022) (CFA). Whilst providing support for this structure, Deniz et al. (2021) also found support for other factor structures and found invariance in all models. Karakasidou et al. (2021) did not support Neff et al.'s (2021) factor structure, finding this model a poor fit, and instead supporting a six-factor structure. 1/2 was given for factor structure.

Neff et al. (2021) found good internal consistency for the total scale (α=.82, .85), and acceptable internal consistency for five of six subscales (α=.70 to .80) in both studies. Internal consistency for overidentification (α=.66) and mindfulness (α=.67) were questionable for study 1 and 2, respectively. Deniz et al. (2022) reported acceptable internal consistency for the total scale (α=.79), whilst Karakasidou et al. (2021) found questionable internal consistency (α=.64). Neither reported internal consistency for subscales. Nazari et al. (2022) demonstrated good-excellent internal consistency for the total SCS-Y (α=.88) and subscales (α=.80 to .90).

Neff et al. (2021) found good test-retest reliability for the total score (r=.83). In relation to subscales, two were adequate (self-kindness, self-judgment, r=.70, .71), three were questionable (common humanity, isolation, mindfulness, r=.63 to .65), and one was poor (overidentification, r=.51). Nazari et al. (2022) found adequate test-retest reliability for the total scale after 4 weeks (ICC=.60). Test-retest reliability was not examined by Karakasidou et al. (2021) and Deniz et al. (2022). 1/2 was given for internal consistency and 0/2 for test-retest reliability.

Construct Validity and Interpretability. Neff et al. (2021) found associations in line with hypotheses. Self-compassion was positively associated with happiness, life

satisfaction, mindfulness, resilience, and mastery-approach goals, and negatively associated with depression, performance-avoidance goals, and performance-approach goals. Effects were small-large, and three correlations were $r \geq .50$.

Karakasidou et al. (2021) did not outline specific hypotheses, instead making vague predictions that positive associations with similar constructs would be indicative of convergent validity, and negative or no correlation with unrelated constructs would indicate discriminant validity. They found positive associations with life satisfaction, resilience, positive emotions, and happiness, and negative associations with negative emotions, anxiety, depression, and stress, with small-medium effects. The three negative factors (self-judgement, isolation, overidentification) had positive associations with negative emotions, stress, depression, and anxiety, and negative associations with positive emotions, happiness, life satisfaction, and resilience, with small-medium effects. Two positive factors (self-kindness and mindfulness) had positive associations with positive emotions, happiness, life satisfaction, and resilience, and negative associations with negative emotions, stress, and depression, with small-medium effects. Unexpectedly, the common humanity factor correlated positively with stress, anxiety, and negative SCS-Y factors. No correlations were $r \geq .50$.

Deniz et al. (2022) reported that the SCS-Y was positively related to resilience and wellbeing, and negatively related to depression, congruent with hypotheses. However, this was examined by network analysis and no correlation values given.

As expected, Nazari et al. (2022) found positive associations between positive factors of self-compassion with resilience and optimism, and negative associations with depression and neuroticism. Negative self-compassion factors also had positive associations with depression and neuroticism, and negative associations with resilience and optimism. Effects were small-medium, and no correlations were $r \geq .50$. The SCS-Y total had negative

associations with depression and neuroticism, and positive associations between with resilience and optimism. However, this was examined with SEM analysis and *r* values not reported. 1/2 was given for construct validity.

Neff et al. (2021) reported means and standard deviations for the total sample and male and female participants for three grades, for three studies. Subgroup analyses were conducted for age, grade, gender, and gender and grade/age interactions explored. No significant differences were found for age or grade, but there was a trend for self-compassion to decrease in higher grades. Males had greater levels of self-compassion in two of three studies (one non-significant). No interaction was found between gender and age, or gender and grade, although one study showed a trend for males to score slightly higher than females, and for females to slightly decrease in self-compassion with age. Nazari et al. (2022) did not report means or standard deviations but also found males had higher levels of self-compassion than females. Karakasidou et al. (2021) and Deniz et al. (2022) did not aid interpretability.

Normality data (Karakasidou et al. 2021; Nazari et al., 2022) and percentile ranks (Karakasidou et al., 2021) suggested that floor/ceiling effects were not evident. 2/2 was given for interpretability and 1/2 for floor/ceiling effects.

Summary. The SCS-Y was rated 7/14. Experts and respondents were mostly consulted on items, but the recognising element of compassion was not captured. Evidence was mixed in support for the factor structure, and internal consistency and test-retest reliability ranged from questionable to good. There was some evidence for construct validity, although some papers did not outline hypotheses, report *r* values, or find multiple large correlations. Floor/ceiling effects did not appear evident, and interpretability was facilitated.

Compassion Scale–Adolescence (CS-A)

The CS-A assesses other-compassion and consists of 16 self-report items with a 5-

point response scale (almost never-almost always). The CS-A has four subscales (kindness, mindfulness, common humanity, indifference).

Population. Sousa et al. (2022) validated the CS with two adolescent samples in Portugal. The community sample (N=658) were students from public schools, aged 14-18 (37.8% male). The forensic sample (N=183) were aged 14-18 (M=15.96, 100% male), recruited from foster care homes and juvenile detention facilities, and 80.3% had a primary diagnosis of conduct disorder. Participants were from socioeconomically diverse backgrounds. Ethnicity was not reported.

Content Validity. The original CS was a 24-item scale developed by Pommier (2010) for adults, then reduced to its current 16-items (Pommier et al., 2020). Three items were slightly reworded from this to be clearly understood by adolescents, without altering content. This was conducted by the research team, with extensive experience with adolescence and measure validation procedures. Translation and backtranslation by a bilingual researcher assured similarity between the adult and adolescent versions. The target population were not consulted. As the final items were not presented in Sousa et al.'s (2022) paper, Pommier et al.'s (2020) scale was reviewed, taking into account reworded items. Items related to 4/5 elements of compassion (not tolerating). 0/2 was given for content validity.

Factor Structure and Reliability. CFA supported the proposed structure of the CS in the original study (Pommier et al., 2020), of a hierarchical higher-order factor of compassion, and four subscales (kindness, common humanity, mindfulness, indifference).

Internal consistency for the total scale was good for both samples (α=.86, .88) and acceptable-good for subscales (α=.63 to .80). Test-retest reliability was not examined. 2/2 was given for factor structure, 1/2 for internal consistency, and 0/2 for test-retest reliability.

Construct Validity and Interpretability. As hypothesised, the CS-A had negative associations with external shame and self-criticism (hated self), and positive associations

with self-compassion. However, there was not a significant association with a second self-criticism subscale (inadequate self). There was also a positive association between the CS-A subscales of common humanity, and mindfulness, with these same factors on the SCS-A. All effects were small, with no correlations of $r \geq .50$. 1/2 was given for construct validity.

Means and standard deviations for total and subscale scores were provided for community males, community females, and the total forensic sample. Subgroup analyses were conducted. Females in the community sample had higher levels of compassion when compared to males. Female scored higher on all subscales, except indifference, where males had higher levels. Males in the forensic sample had lower levels of other-compassion than males in the community sample, and lower levels of mindfulness. The indifference subscale was associated with number of diagnoses in the forensic sample. Floor/ceiling effects were not examined. 0/2 was given for floor/ceiling effects and 1/2 for interpretability.

Summary. The CS-A was rated 5/14. Experts, but not the target population were consulted on items, and the tolerating element of compassion was not captured. CFA supported the hierarchical higher-order factor of compassion and four subscales, internal consistency was acceptable-good, and interpretability was facilitated. There was some evidence for construct validity, and test-retest reliability and floor/ceiling effects were not examined.

Discussion

The systematic review aimed to describe and critically appraise compassion measures used with young people, and their psychometric properties. This review of 15 papers and eight measures highlights lack of suitable and psychometrically robust compassion measures for young people. It also demonstrates increased interest in compassion in young people in recent years, with seven papers published within the last two years.

Summary of Measures

Three measures (4 papers) assessed other-compassion and seven (14 papers) assessed self-compassion. No measure fully captured Strauss et al.'s (2016) definition of compassion, and many papers lacked consultation on items with experts and recipients, contributing to poor content validity. CFA was conducted for seven measures, but mixed evidence emerged for the factor structure of measures based on the SCS, reflecting inconsistencies in the adult literature (Muris & Otgaar, 2020), suggesting poor validity.

Internal consistency was the strongest criterion. However, Cronbach's alpha was unacceptable for some measures. Only four papers assessed test-retest reliability. All but one were rated zero, questioning the reliability of current measures.

Correlations with related constructs were reported for all measures. Two measures met the full criteria for construct validity. Whilst many correlations were weak and some findings inconsistent, correlations were generally significant, medium-large, in expected directions, and suggestive of the importance of self-compassion for wellbeing (Marsh et al., 2018). Other-compassion also had associations suggestive of benefits for wellbeing, but fewer papers examined this. Whilst existing measures had psychometric weaknesses which could be improved, they were considered to partially measure compassion. Therefore, these findings suggest that offering CBI's to young people may offer the possibility of improving wellbeing and mental health outcomes.

Few papers examined the relationship between other- and self-compassion. Findings were mixed, with small-large associations found (Cunha et al., 2021; Sousa et al., 2022) found. This suggests more limited understanding of this relationship in young people and need for further research.

No paper explicitly examined floor/ceiling effects. Eight papers did not aid interpretability of scores. At least one subgroup analysis was conducted for five measures, with gender the most common comparison. Subgroup analyses generally indicated that

females had lower levels of self-compassion than males, but higher levels of other-compassion, supporting research with adults (Yarnell et al., 2015). There was also indication of a trend for self-compassion to decrease with age, particularly for females. Few measures had subgroup analyses conducted for multiple groups to aid interpretability.

The strongest measure was the CEAS-A (9/14), followed by the SCS, SCS-Y and CS-C (7/14). None captured the five elements of compassion or explicitly examined floor/ceiling effects. CFA was conducted for the CEAS and CS-C, supporting factor structures, and construct validity was good. However, there was mixed evidence for the SCS and SCS-Y factor structures, and inconsistent findings for construct validity. The CEAS-A was the only measure to meet criteria for test-retest reliability and just the SCS-Y did not meet full criteria for internal consistency, due to inconsistent findings. However, the CEAS-A, in addition to the SCS lacked consultation with experts/young people. The SCS and SCS-Y also focus on self-compassion, meaning they are not suitable to assess other-compassion.

Methodological Limitations of Measures

Identified papers used samples from nine different countries. No studies used a sample from the UK. The majority of papers did not report SES or ethnicity but of those that did, samples generally appeared diverse.

Lack of consultation for items is particularly problematic for measures developed for use with adults (e.g., SCS), as it cannot be assumed the language used is developmentally appropriate. Whilst some measures were validated in different countries, with items translated to a different language, recipients/experts were not consulted in many papers. This therefore poses a risk of items not being suitable for these populations.

One measure assessed compassion towards other living things, which does not quite fit with Strauss et al.'s (2016) definition of compassion as being related to "human suffering" and feeling empathy for the "person". However, given the current climate crisis, this may be

an important area to gain further understanding of.

Some papers conducted PCA and did not conduct EFA or CFA. However, PCA has a greater emphasis on data reduction than interpretation. EFA is recommended when research aims to identify underlying factors, and CFA is recommended to test whether a set of observed variables represent underlying factors (Alavi et al., 2020).

Whilst Pearson and Spearman correlation coefficients were reported in two papers for test-retest reliability, these do not take into account systematic differences. The intraclass correlation coefficient (ICC) is reported to be a more suitable measure of reliability as it reflects the degree of correlation and agreement between measurements, taking into account systematic differences (Koo and Li, 2016; Terwee et al., 2007). However, only two (Cunha et al., 2021; Nazari et al., 2021) papers reported ICC.

Many papers did not outline predefined hypotheses for construct validity. Where hypotheses were made, these were generally about the direction of correlations (positive or negative), but not about the strength of correlations. However, hypotheses should be as specific as possible (Terwee et al., 2007) as without, there is a high risk of bias as it can be tempting to give alternative explanations for low correlations, instead of concluding the measure has poor validity.

Clinical Implications

This review highlights that most compassion measures were not suitable for young people and had psychometric weaknesses. This could lead to inaccurate research findings and outcome measures in clinical practice, hindering confidence in conclusions and limiting advancements in research and practice with young people. Researchers and clinicians should consider the psychometric limitations of these measures when drawing conclusions in research and practice. The majority of measures assessed self-compassion and are therefore not suitable for assessing other-compassion.

Robust compassion measures suitable for young people would enable the effectiveness of CBIs to be evaluated in RCTs, an identified gap in the literature (Ferrari et al., 2019). Additionally, they would enable research to examine whether CBI's have beneficial effects through their hypothesised mechanism of action (enhancing compassion). Subgroup analyses also suggested that CBIs may be particularly beneficial for female adolescents.

Differences in ethnicity and SES were not explored in any study. Markus and Kitayama's (1991) self-construal theory proposes that those in collectivist cultures have an interdependent self-concept, whereas those in Western individualistic cultures have an independent self-concept. Whilst it may be assumed that compassion is more prevalent in cultures emphasising an interdependent sense of self as compassion involves recognition of common humanity, research with adults suggests that levels of self-compassion in different societies are linked to cultural norms, rather than individualistic–collectivist self-construal differences (Neff et al., 2008). Whilst research indicates that cultures differentially emphasise self-compassion, it also suggests that self-compassion may have universal benefits for psychological wellbeing (Neff et al., 2008). Furthermore, research with adults indicates that those from lower SES backgrounds show greater compassion than those from higher SES backgrounds due to greater vigilance to the social environment and being more attuned to others' distress (Piff & Moskowitz, 2017). It may be helpful to explore these differences with young people.

Recommendations for Future Research

This review highlights the need for valid and reliable measures to assess self-compassion and compassion towards others, and for the psychometric properties to be examined with a UK sample. Gu et al. (2020) developed the Sussex-Oxford Compassion Scales (SOCS) to address the lack of robust compassion measures for adults based on Strauss

et al.'s (2016) definition of compassion, which have good psychometric properties. It is therefore recommended that the psychometric properties of the psychometrically robust SOCS are examined with young people in the UK.

Whilst poor test-retest reliability questions the reliability of current measures, this may also suggest that compassion is less stable in developing children. Robust measures could also increase understanding of the development of compassion and its influences, in addition to the relationship between self-compassion and other-compassion in young people.

Review Limitations

The search criteria meant that only papers reporting novel psychometric properties were included. It was beyond the scope of the review to examine all published data using compassion measures with young people. Some relevant papers may have been excluded where it was unclear if the sample majority were under 18.

The review took a stringent approach, for example, requiring two correlations of $r \geq .50$ (Barker et al., 2002), in addition to Terwee's (2007) criteria. Overall, the quality criteria captured the general quality of measures, but there was a degree of arbitrariness. For example, a measure could be rated zero for not examining the property or for poor quality. Equal ratings can also indicate different limitations, which differ in terms of their perceived importance in relation to the measures psychometric properties.

A strict approach was taken for content validity, with Strauss et al's (2016) definition used for quality appraisal. Some researchers may disagree with this approach, as evaluating scales against a definition other than the definition used in the development of the scale could disadvantage ratings for content validity. However, whilst other existing definitions could have guided quality appraisal, these lack the attempt to consolidate a broad range of conceptualisations in Strauss et al.'s (2016) framework, alongside the empirical support for this framework from theory-free exploratory factor analysis of items (Gu et al., 2017).

Conclusion

A systematic review was conducted of compassion measures used with young people with a paper examining psychometric properties. All measures had psychometric weaknesses. Congruent with Strauss et al.'s (2016) review of measures for adults, this review suggests that no compassion scale exists that comprehensively measures compassion in young people, with good levels of reliability and validity. The findings of this review therefore support the development of a new compassion measure for young people, that comprehensively measures compassion and has good psychometric properties.

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MEASURING COMPASSION IN YOUNG PEOPLE

Section B: Validation of the Sussex-Oxford Compassion Scales (SOCS) with Young People

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Abstract

Scientific interest in compassion has increased in recent years, particularly in relation to young people. However, research highlights issues related to the measurement of compassion in young people and need for valid and reliable self-report measures of compassion for others and self-compassion, to advance compassion research with young people. The current study examined the psychometric properties of the Sussex-Oxford Compassion for Others Scale (SOCS-O) and Sussex-Oxford Compassion for the Self Scale (SOCS-S) with 486 11–16-year-olds. The scales are based on the theoretically derived and empirically supported definition of compassion as comprising five dimensions: 1) recognising suffering, 2) understanding the universality of suffering, 3) feeling for the person suffering, 4) tolerating uncomfortable feelings, and 5) motivation to act/acting to alleviate suffering. Whilst both scales have demonstrated good psychometric properties with adults, the psychometric properties had not been explored with young people. Confirmatory factor analysis supported the five-factor and five-factor hierarchical structure for both scales. Both scales showed adequate internal consistency, test re-test reliability, interpretability, convergent/discriminant validity, and no floor/ceiling effects. Limitations of existing measures were addressed, and findings indicate the scales are robust measures of compassion for others and self-compassion in young people, supporting their use in research and practice.

Key words: compassion, self-compassion, measure, young people, self-report, SOCS-O, SOCS-S

Introduction

Compassion

Compassion is conceptualised as an evolutionary emotion, which is reproductively beneficial and has evolved as the affective element of the caregiving system to nurture and protect offspring (Goetz et al., 2010). Compassion can be directed inward toward the self, or outward towards others (Roeser et al., 2018). Gilbert's definition of compassion as "the sensitivity to suffering in self and others, with a commitment to try to alleviate and prevent it" (Gilbert, 2014, p. 19) is commonly cited. As is Neff's (2003a) conceptualisation of self-compassion, proposing three main components: self-kindness (being kind and understanding toward oneself rather than self-critical in instances of pain or failure), common humanity (perceiving one's experiences as part of the larger human experience rather than as isolating), and mindfulness (holding painful thoughts and feelings in balanced awareness rather than over-identifying with them). Features distinguishing compassion from related constructs such as empathy include compassion arising in response to suffering, and involving a desire to alleviate suffering, which are not core components of empathy (Strauss et al., 2016).

Challenges in compassion research have included lack of consensus in defining compassion. Resultantly, Strauss et al. (2016) reviewed and consolidated conceptualisations and definitions in the literature into one multi-faceted definition, to advance research. They propose compassion as a cognitive, affective, and behavioural process consisting of the following five elements: 1) recognising suffering; 2) understanding the universality of human suffering; 3) feeling empathy for the person suffering and connecting with the distress (emotional resonance); 4) tolerating uncomfortable feelings aroused in response to the suffering person (e.g., distress, anger, fear); and 5) motivation to act/acting to alleviate suffering.

The five elements refer to compassion for others (other-compassion) and self-compassion, congruent with theory that the process of compassion is generally equivalent for both (Feldman & Kuyken, 2011; Gilbert, 2014). Gu et al. (2020) empirically supported this with findings indicating that other- and self-compassion are overlapping constructs (r=.40), contrary to previous research finding limited overlap (López et al., 2018; Neff & Pommier, 2013). Whilst understanding of this relationship is more limited in young people, findings are mixed, with the strength of the relationship ranging from small (r=.10, Sousa et al., 2022), to large (r=.61, Cunha et al., 2021), and suggestive of overlapping constructs.

Findings for gender differences have been inconsistent. However, generally, research suggests that males have higher levels of self-compassion than females, whilst females have higher levels of other-compassion (Bengtsson et al., 2016; Cunha et al., 2021; Gu et al., 2020; Yarnell et al., 2015). Self-compassion is also suggested to decrease with age across early adolescence, particularly for females (Bengtsson et al., 2016; Bluth & Blanton, 2015). The literature suggests that older adolescence have an increasingly negative sense of self, and that females become more self-critical with age (Bengtsson et al., 2016) showing increases in internalising problems (Hayward & Sanborn, 2002). Whilst cognitive advances during adolescence provide new abilities for critical evaluation of oneself, these abilities may also stimulate self-criticism and feelings of isolation (Duval & Wicklund, 1972). Females are also suggested to have a predisposition to a caring-giving mentality and show these behaviours from early ages more than males (Gilbert, 2010). This may suggest a societal influence of gender expectations on other-compassion (Ridgeway, 2011).

Development of Compassion

Origins of compassion are thought to exist from the first year of life when infants show empathic responses to others (Gilbert, 2015; Hoffman, 2000), followed by expressions of concern and prosocial behaviour towards others in the second year (Eisenberg, 2000).

Perspective taking skills allow children to understand others' emotions and are important for developing compassion. Developmental literature suggests these skills emerge around age six and continue developing into adolescence (Selman, 1980). Perspective taking approaches adult levels in early adolescence, supporting empathic sharing of values and beliefs and more reciprocal shared experiences (Selman, 1980, 2003). Therefore, early adolescence may present early stages of more adult-type compassion, based on a complex understanding of the self, and others, and the ability to view experiences of the self and others from a third person or societal perspective (Bengtsson et al., 2016; Selman, 1980). Research also highlights complex interactions between biological (temperament) and social factors (parenting, community influences) in the compassion development (Roeser et al., 2018),

Benefits of Compassion

In recent years, there has been increased scientific interest in compassion and recognition of its importance in education (Compassion in Education Foundation, 2016) and healthcare, with compassion being a core NHS value (Department of Health, 2013). Whilst most research has been conducted with adults based on Neff's (2003a) conceptualisation of self-compassion using the Self-Compassion Scale (SCS) (Neff, 2003b), the evidence base with young people has evolved, reflecting adult literature.

Research suggests that self-compassion is important for young peoples' psychological and social wellbeing. Self-compassion is positively associated with happiness, mindfulness, resilience, and social connectedness, and reduced anxiety, depression, and stress, with large effect sizes (Marsh et al., 2018; Neff & McGehee, 2010; Neff et al., 2021). Self-compassion has also shown small-moderate negative associations with peer victimisation (Hatchel et al., 2019), and has been shown to moderate the association between peer victimisation and self-harm (Jiang et al., 2016). Other-compassion in young people has been associated with better emotion regulation, enhanced wellbeing, and greater mindfulness, with large effect sizes

(Heidary et al., 2022). However, research on other-compassion in young people is more limited.

An explanation offered for the benefits of compassion in the literature is through compassion activating the soothing system–associated with feelings of contentment, safety, and connectedness–that helps regulate elevated threat-oriented emotions (Gilbert, 2014). Neff (2003b) also suggests that self-compassion transforms negative affect into positive affect, allowing for clearer understanding of situations and appropriate and effective actions (Folkman & Moskowitz, 2000). Moreover, experiences of pain and failure may not be heightened and maintained through self-blame and criticism (Blatt et al., 1982), feelings of isolation (Wood et al., 1990), or over-identification with thoughts and emotions (NolenHoeksema, 1991). Other-compassion is also suggested to benefit wellbeing by increasing ability to receive social support, which may lead to more adaptive reactivity to stressors (Cosley et al., 2010).

Cultivating Compassion in Young People

Adolescence is a developmental period characterised by physical, cognitive, and socio-emotional growth, novel social and environmental stressors (Steinberg & Morris, 2001), and increased vulnerability for mental health difficulties. Mental health difficulties have increased in the UK following the COVID-19 pandemic, with estimates increasing to one in six for 6–19-year-olds (NHS Digital, 2021). However, adolescence has also been described a ‘window of opportunity’ for the development of positive qualities and compassionate understanding of the self and others (Roeser & Pinela, 2014). There is substantial developmental brain plasticity in adolescence and associated psycho-social identity development (e.g., self-reflection, increase in social perspective taking, concern with evaluation and understanding the self and others) (Roeser & Pinela, 2014). The difficulties adolescence brings, along with the ‘window of opportunity’ this period offers, and associated

benefits of compassion, suggest adolescence is an important time to offer interventions that aim to cultivate compassion. Offering compassion-based interventions (CBIs) during this period is likely to be beneficial for supporting young people's social and emotional development and wellbeing.

CBIs typically involve group-based, experiential cultivation of compassion. Meta-analyses of randomised control trials (RCTs) for CBIs indicate that compassion is a skill that can be cultivated (Ferrari et al., 2019; Kirby et al., 2017). Whilst fewer studies have evaluated CBIs with young people than adults, the literature is growing alongside increases in compassion-based programs in education. Organisations such as 'Mind with Heart' (www.mindwithheart.org) and the 'Compassion in Education Foundation' (www.coedfoundation.org.uk) have recognised the benefits of CBIs in educational settings. However, despite growth in scientific research on school-based programs, the number of experimental studies is small (Roeser et al., 2022).

A recent quasi-RCT explored use of Compassionate Mind Training (eight sessions), as a school-based intervention for test anxiety with adolescents (O'Driscoll & McAleese, 2022). The CMT group showed significant reductions in test anxiety and general anxiety, and significant increases in self-compassion, compared with controls. However, the compassion measures used were not specifically developed for adolescents. Colaianne et al. (2022) piloted a virtual, compassion-based school program for adolescents. The intervention group had moderate-large increases in self-compassion, but no differences in other-compassion compared to controls. Whilst providing preliminary evidence, they highlighted the need for more rigorous research, using RCT designs, with larger general samples of adolescents and use of appropriate compassion measures. A recent review also called for improvements in experimental research on compassion and expansion of developmental research (Roeser et al., 2022). Furthermore, meta-analyses of CBI RCTs (Ferrari et al., 2019; Kirby et al., 2017)

have also highlighted the lack of RCTs assessing compassion in young people, representing a gap in the literature. RCTs evaluating CBIs with young people are therefore needed to improve understanding of their impact.

Limitations of Existing Compassion Measures for Young People

The systematic review of existing compassion measures used with young people (Section A) demonstrated that all had psychometric weaknesses. Notably, no measure fully captured Strauss et al.'s (2016) theoretically derived definition. The strongest measure was the Compassionate Engagement and Actions Scale–Adolescence (Cunha et al., 2021), but content validity was poor. Moreover, many studies have used adult measures, namely the SCS (Neff, 2003b) and brief version (SCS-SF; Raes et al., 2011), which may not be developmentally suitable for assessing compassion in young people (Neff et al., 2021). SCS factor structure inconsistences may also suggest poor validity (Muris & Otgaar, 2020).

Lack of valid and reliable measures comprehensively capturing compassion for young people highlights need for new robust compassion measures to progress scientific research. Continuing to use measures that do not fully capture the nature of compassion, and which are limited by psychometric weaknesses could lead to inaccurate research findings, thereby limiting advancements in research and practice with young people.

Areas of research and clinical practice that would benefit from appropriate and psychometrically robust compassion measures include evaluating the influences on the development of other- and self-compassion in young people, and the benefits compassion has, in relation to psychological and social wellbeing. Robust measures would enable RCTs to be conducted to evaluate the effectiveness of CBIs, which would increase confidence in whether compassion can be cultivated in young people, through interventions developed to (implicitly and explicitly) enhance compassion. A fundamental benefit would be enabling research examining how CBIs work, and whether they have beneficial effects through their

hypothesised mechanism of action (enhancing compassion), by examining whether improvements in compassion mediate wellbeing outcomes. Robust measures would also enable longitudinal research to gain greater understanding of the development of compassion. Development of psychometrically robust measures therefore demonstrates commitment to quality of care and may offer opportunities to improve lives of young people in future (Department of Health, 2013).

Sussex-Oxford Compassion Scales (SOCS)

Following Strauss et al.'s (2016) five-element definition and call for a psychometrically robust compassion measure based on this (Gu et al., 2017; Strauss et al., 2016), Gu et al. (2020) developed and psychometrically evaluated two parallel theoretically informed self-report measures of compassion with adults: The Sussex-Oxford Compassion for Others Scale (SOCS-O) and Sussex-Oxford Compassion for the Self Scale (SOCS-S). Both are 20-item scales and participants are asked to rate how true each statement is of them using a 5-point Likert scale, ranging from 1 to 5 (*not at all true-always true*). Total scores range from 20 to 100, with higher scores indicating greater compassion.

For both scales, factor analyses demonstrated the five-factor hierarchical model with items loading on respective factors from the five-element definition, and these factors loading on to an overarching compassion factor, was a good fit to the data. Internal consistency was acceptable for total and subscales of the SOCS-O (α=.61 to .94) and SOCS-S (α=.72 to .93), and there was evidence for convergent/discriminant validity. For example, the SOCS-S had significant moderate-large positive correlations with self-compassion, mindfulness, and wellbeing, and negative correlations with stress, anxiety, depression, and burnout. The SOCS-O had large positive correlations with other-compassion and empathy, and small-medium positive correlations with mindfulness and wellbeing. There was no indication of floor/ceiling effects, and group comparisons were conducted to aid interpretability. Whilst the

scales have demonstrated good psychometric properties with adults (Gu et al., 2020), psychometric properties have not been explored with young people.

Research Aims

The current study aims to address the lack of robust compassion measures for young people by psychometrically evaluating the SOCS-O and SOCS-S with young people. It aims to validate the factor structure of the scales with young people, and examine convergent/discriminant validity (extent to which scales were related to other measures consistent with theoretically derived hypotheses), interpretability (extent to which qualitative meaning can be attached to quantitative scores; assessed by comparing scale scores in participant subgroups), internal consistency (extent to which items in a scale or subscale are correlated), and floor/ceiling effects (the percentage of respondents achieving the highest and lowest possible scores). It also aims to increase understanding about the relationship between other- and self-compassion in young people.

Hypotheses:

1. The factor structure of the scales will be confirmed with young people. The five-factor model, and five-factor hierarchical model where the five related components (recognising, universality, feeling, tolerating, and acting) are components of an overarching compassion factor, will be a good fit to the SOCS-O and SOCS-S data for the total sample, and for younger (11-13 years), and older (14-16 years) subsamples.
2. The scales will have good internal consistency and test-retest reliability.
3. The scales will demonstrate evidence for convergent/discriminant validity, congruent with theoretically driven hypotheses:
    - The SOCS-O and SOCS-S will be significantly positively correlated ($r \geq .30$).
    - The SOCS-S total will be significantly positively correlated with the CAMM (mindfulness), WEMWBS (wellbeing), BRS (resilience) ($r \geq .30$) and SCS-Y

total (self-compassion) ($r \geq .50$), and negatively correlated with the SMFQ (depression) ($r \geq .50$) and MPVS (peer victimisation) ($r \geq .10$).

- SOCS-S subscales will be significantly positively correlated with the SCS-Y total (self-compassion) ($r \geq .30$).
- The SOCS-O total will be significantly positively correlated with the CAMM (mindfulness), WEMWBS (wellbeing), and SCS-Y total (self-compassion) ($r \geq .10$).

4. Females will score higher on the SOCS-O than males. Males will score higher on the SOCS-S than females.
5. There will be a significant interaction between age and gender, and year group and gender for self-compassion; older females will score lowest on the SOCS-S.

Method

Design

A non-experimental, cross-sectional survey design was used. There was also a longitudinal element to examine test-retest reliability of the scales over two to three weeks.

Consultation with Young People

Prior to the main study, young people were consulted about the language and readability of original SOCS items, and participant information and debrief sheets. A local youth participation group were contacted via online request form. The group are representative of the local population, offering monthly consultation. The author was allocated a slot and attended an online group in July 2021, attended by eight 11–17-year-olds. Participation leads were sent an outline of areas requiring consultation beforehand (Appendix A). Participants were provided with materials one week before. Qualitative feedback was obtained and minor adaptations to information and debrief sheets were made. No items were

adapted following consultation. Ethical approval was obtained from the Local Authority (Appendix B), who also reimbursed participants for their time.

Recruitment and Participants

Eighteen local schools were invited to take part via e-mail and sent an information sheet (Appendix C-D). The author's contacts in local schools were also e-mailed. One secondary school expressed interest via e-mail. Following an online meeting with the Senior Mental Health Lead (SMHL) to discuss the study and practicalities, headteacher consent was obtained. Co-ordination of the research in school and all correspondence with participants and parents/guardians was through the SMHL, who organised the personal, social, health and economic education (PSHE) curriculum. A convenience sample was used. The opportunity to take part was offered to students in classes with an additional PSHE lesson timetabled. These classes had greater flexibility for the lesson plan; the research did not impact the curriculum.

Inclusion and Exclusion Criteria

Specialist schools were excluded as developmental capacities involved in compassion may differ in these young people. Participant inclusion criteria were young people aged 11-17 years, able to read English.

Sample

The final sample comprised of 486 students attending one state-funded secondary school in the South of England (49% female, 47.5% male, 1.2% non-binary, 1.2% other, 1% prefer not to say), aged 11-16 years (M=13.7, SD=1.5) in school years 7–11. The majority identified as White (86.4%) and were not receiving free school meals (89.5%). A subsample of 70 students (14.4%) completed the SOCS at Time 2 (62.9% female, 34.3% male, 1.4% non-binary, 1.4% other). The mean age was 14.2 years (SD=1.3) and the majority identified as White (92.8%) and were not receiving free school meals (90%). Participant demographics are shown in Table 1.

Table 1

Participant Demographic Information

	Time 1		Time 2	
	N	%	*N*	%
Total	486	100	70	100
Age				
11 years	61	12.6	3	4.3
12 years	59	12.1	4	5.7
13 years	80	16.5	12	17.1
11-13 years	*200*	*41.2*	*19*	*27.1*
14 years	89	18.3	15	21.4
15 years	158	32.5	29	41.4
16 years	39	8.0	7	10.0
14-16 years	*286*	*58.8*	*51*	*72.8*
Year Group				
Year 7	81	16.7	5	7.1
Year 8	48	9.9	6	8.6
Year 9	85	17.5	9	12.9
Year 10	95	19.5	18	25.7
Year 11	177	36.4	32	45.7
Gender				
Female	238	49.0	44	62.9
Male	231	47.5	24	34.3
Non-binary	6	1.2	1	1.4
Other	6	1.2	1	1.4
Prefer not to say	5	1.0	0	0
Ethnicity				
White - English, Welsh, Scottish, Northern Irish, or British	395	81.3	61	87.1
Irish	3	0.6	0	0
Gypsy or Irish Traveller	2	0.4	0	0
Any other White background	20	4.1	4	5.7
White and Black Caribbean	3	0.6	0	0
White and Black African	5	1.0	2	2.9
White and Asian	6	1.2	0	0
Any other mixed or multiple ethnic background	9	1.9	0	0
Indian	9	1.9	0	0
Bangladeshi	2	0.4	1	1.4
Chinese	3	0.6	1	1.4
Any other Asian background	4	0.8	0	0
African	6	1.2	0	0
Any other Black, African, or Caribbean background	1	0.2	0	0
Arab	2	0.4	0	0
Any other ethnic group	6	1.2	1	1.4
Prefer not to say	8	1.6	0	0
Missing	2	0.4	0	0
Free School Meals				
Yes	38	7.8	4	5.7
No	435	89.5	63	90.0
Not sure	10	2.1	2	2.9
Prefer not to say	2	0.4	1	1.4
Missing	1	0.2	0	0

Measures

The Time 1 survey included demographic questions and nine self-report measures[1], theoretically predicted to be related to compassion. The Time 2 survey included demographic questions and repeated measures of the SOCS.

Demographics

Demographic questions captured information about age, gender, year group and ethnicity. Receipt of free school meals was used as an indicator of socioeconomic status (SES) (Gorard, 2012).

Sussex-Oxford Compassion for Others Scale (SOCS-O) and Sussex-Oxford Compassion for the Self Scale (SOCS-S) (Gu et al., 2020)

The SOCS-O and SOCS-S (Appendix E-F) contain items such as "I notice when others are feeling distressed," and "I notice when I'm feeling distressed." Administration and interpretation of the scales is described above, in addition to psychometric properties with adults. Item wording of original items was not changed following consultation.

Self-Compassion Scale–Youth (SCS-Y; Neff et al., 2021)

The 17-item SCS-Y is a youth measure of self-compassion adapted from the SCS (Neff, 2003b), comprising six subscales: self-kindness, self-judgement, common humanity, isolation, mindfulness, and over-identification. It asks respondents to indicate how they act towards themselves in difficult times, using a 5-point Likert scale, from 1 to 5 (*almost never-almost always*). Items from self-judgement, isolation, and over-identification subscales were negatively worded and reverse scored. A grand mean of the six-subscale means was used to calculate a total score. Scores range from 0 to 5. Higher scores indicate higher self-compassion. Neff et al., (2021) validated the factor structure with 11–15-year-olds. There was evidence for construct validity (r=.18 to .65), test-retest reliability was good (r=.83) and

[1] One measure (three subscales from the Patterns of Adaptive Learning Survey, Midgley 2000) was excluded due to administration error.

internal consistency was good for the total (α=.82 to .85), and acceptable-good for most subscales (α=.66 to .80). Cronbach's alpha were .86 (total), .84 (self-kindness), .74 (self-judgement) .77 (common humanity), .70 (isolation), .78 (mindfulness) and .62 (over-identification).

Child and Adolescent Mindfulness Measure (CAMM; Greco et al., 2011)

The CAMM is a 10-item mindfulness measure. It asks respondents to indicate how often each sentence is true for them on a 5-point Likert scale, from 0 to 4 (*never true-always true*). All items were negatively worded, and reverse scored. Scores range from 0 to 40. Higher scores indicate greater mindfulness. The single-factor structure was validated with 10–17-year-olds, there was evidence for convergent validity (r=.14 to .58), and internal consistency was good (α=.80; α=.84) (Greco et al., 2011; Kuby et al., 2015). Cronbach's alpha was .84.

Warwick–Edinburgh Mental Wellbeing Scale (WEMWBS; Tennant et al., 2007)

The 14-item WEMWBS is a measure of mental wellbeing. It asks respondents to rate statements using a 5-point Likert scale, from 1 to 5 (*none of the time-all of the time*), to describe their experience over the past two weeks. Scores range from 14 to 70. Higher scores represent higher levels of wellbeing. The WEMWBS has demonstrated good convergent/discriminant validity (r=.53 to .70), good internal consistency (α=.87), and moderate test-rest reliability (ICC=.66) when used with 13–16-year-olds (Clarke at al., 2011). Cronbach's alpha was .93.

Short Mood and Feelings Questionnaire (SMFQ; Angold et al., 1995)

The 13-item SMFQ screens for depression symptoms. It asks respondents to indicate how true statements are about how they have felt and acted in the past two weeks, using a 3-point Likert scale, from 0 to 2 (*not true-true*). Scores range from 0 to 26. Higher scores represent greater severity of symptoms, with scores of 12 and higher indicating the presence

of depression. The SMFQ has demonstrated good internal consistency (α=.88 to .89), and adequate convergent (r=.57 to .70) and criterion validity (sensitivity=84%, specificity=68%) with 12–19-year-olds (Thabrew et al., 2018). Cronbach's alpha was .93.

Brief Resilience Scale (BRS; Smith et al., 2008)

The 6-item BRS assesses ability to recover from adversity. It asks respondents to indicate how strongly they agree with statements using a 5-point Likert scale, from 1 to 5 (*strongly disagree-strongly agree*). Three items are negatively worded, and reverse scored. A mean score is calculated, ranging from 1 to 5. Higher scores represent greater resilience. Whilst not validated with young people, the BRS been used with this population and demonstrated good internal consistency (α=.70 to .91) with 11–17-year-olds (Bluth & Eisenlohr-Moul, 2017; Neff et al., 2021). Cronbach's alpha was .79.

Multidimensional Peer-Victimization Scale (MPVS; Mynard & Joseph, 2000)

The 16-item MPVS assesses peer victimisation in four domains: physical, social, verbal, and property. It asks respondents to indicate how often victimising acts happened to them during the last school year, on a 3-point Likert scale, from 0 to 2 (*not at all-more than once*). Total scores range from 0 to 32. Higher scores indicate greater victimisation. Internal consistency was acceptable-good (α=.73 to .85), there was evidence for convergent validity (r=.17 to .58), and the factor structure was validated with 11–16-year-olds (Betts et al., 2015; Mynard & Joseph, 2000). Cronbach's alpha was .92.

Ethics

Ethical approval was provided by a University Ethics Committee (Appendix G). Informed written consent to opt-in to the research and act in loco parentis was obtained from the school headteacher (Appendix H). Information sheets were e-mailed to potential participants (Appendix I) and parents/guardians (Appendix J) one-week before the research. Consistent with usual school practices, parents/guardians were e-mailed an opt-out consent

form (Appendix K) to return if they did not consent to their child participating. Opt-out consent is commonly used in school-based research and considered acceptable when research falls within usual school activities and poses no significant risks to participants (British Psychological Society [BPS], 2021).

As is common in research on sensitive topics, anonymised responses were used to protect confidentiality (BPS, 2021). The importance of anonymity for young people participating in school-based research is also highlighted in the literature (Demkowicz et al., 2020a). However, this presented a dilemma as positive reports of bullying could not be followed up, which could have felt discouraging for participants. However, on balance, the advantages of anonymous responses were considered to outweigh the disadvantages. Whilst the survey contained sensitive items related to bullying, no concerns about use of these in an anonymous survey, or the plans to minimise possible detrimental impact to participants were raised during consultation with young people, or by the headteacher or SMHL. Efforts to minimise detrimental impact to participants followed recommendations for good practice for school-based research (Demkowicz et al., 2020).

Participant and parent/guardian information sheets made it clear that questions related to experiences of bullying were included in the survey, and that participant responses would not be identifiable, even when reporting difficulties. Young people were advised not to participate if it was anticipated that taking part may cause significant distress and/or if they were currently experiencing high levels of distress. Furthermore, the survey was completed during PSHE lessons, where sensitive topics are commonly discussed.

Informed assent was obtained from participants at the beginning of the Qualtrics survey (Appendix L). Forced response meant participants could not continue if assent was not provided. Participation was voluntary and participants were reminded they could stop taking part any time before submitting their answers. Opportunities to ask teachers questions

were given before and during the survey. Participants not taking part were advised to continue independent work.

Responses were anonymised by storing personal information provided for the prizedraw separately to the data. Providing personal information was not compulsory. Reponses were given a code, which was linked to separately stored e-mail addresses to link Time 1 and 2 responses.

Participants were actively encouraged by their teacher to access support if needed, and signposted to other staff that would be available for support (e.g., pastoral staff), with usual procedures adhered to following disclosures of concern. Participant and parent/guardian debrief sheets (Appendix M-N) were tailored to the school and provided information and signposting to local services offering support with issues that may have arisen.

Procedure

Data collection took place from October-November 2022. Participants were invited to complete an anonymous online survey on Qualtrics (Appendix O) during PSHE lesson. Participants were e-mailed the Qualtrics link and presented with a video of the author reading the information describing the study. The information sheet was also displayed at the beginning of the survey, followed by an assent form. Key information was reiterated by the teacher following the video and displayed on the board. This included ‘you do not have to take part,’ and ‘no one will know which answers are yours, even if you report that you are having difficulties,’ in addition to encouragement to seek support if needed.

Participants then completed demographic questions and self-report measures. Participants had the opportunity to enter a prize draw to win one of five £20 vouchers. Participants were asked if they would like to complete a shorter questionnaire in two-three weeks and enter a second prizedraw to win one of two £20 vouchers. Participants were presented with an online debrief sheet following completion, which was also e-mailed to

participants.

Participants that provided an e-mail address for Time 2 were e-mailed a link to the Time 2 survey (Appendix P) two-three weeks after. Tutor group time was allocated for completion.

Planned Data Analysis

Preliminary analyses were conducted to prepare the data, assess missing data, check underlying assumptions, and report descriptive statistics and internal consistency (Field, 2013). Preliminary analyses and all following analyses, with the exception of Confirmatory Factor Analysis (CFA), were conducted using SPSS version 29. CFA was conducted in Mplus version 6.12 (Muthén & Muthén, 1998-2010).

CFA is the recommended approach for confirming and testing hypotheses about a theoretically proposed factor structure (Brown & Moore, 2012). Three CFA models were tested for the SOCS: 1) a one-factor model where all items are direct indicators of a single compassion factor, 2) a five-factor correlated model, with items loading on respective factors of Strauss et al's (2016) five-element definition, and 3) a five-factor hierarchical model, with the five factors loading on to an overarching compassion factor. All models used maximum-likelihood estimation with robust standard errors.

Model fit to the data was assessed using five fit indices: the comparative fit index (CFI; Bentler, 1990), root mean square error of approximation (RMSEA; Steiger & Lind, 1980), Tucker–Lewis index (TLI; Tucker & Lewis, 1973), standardised root mean square residual (SRMR; Bentler, 1995), and Akaike information criterion (AIC; Akaike, 1987). Recommended cut-off criteria for determining goodness of fit using these indices can be arbitrary and affected by various aspects of analysis (e.g., sample size, model complexity) (Brown, 2006). Therefore, use as absolute rules is not recommended (Marsh et al., 2004). Like Gu et al. (2020), the following liberal and conservative cut-off points were used for

acceptable fit: CFI and TLI should be close to or greater than .90 (liberal) or .95 (conservative), RMSEA should be .10 or less (liberal) or .06 or less (conservative), and SRMR should be less than .10 (liberal) or .05 (conservative). The significance of factor intercorrelations and loadings were also considered. The AIC was used to compare model fit. Lower values indicated better model fit. Whilst the chi-square (χ^2) test of model fit is reported, the statistical significance was not used to indicate model fit due to its hypersensitivity to large samples (Brown & Moore, 2012). Other fit indices were therefore considered together to evaluate model fit.

Internal consistency was assessed by computing Cronbach's alphas. Cronbach's alpha ≥.70 indicated good internal consistency (Terwee et al., 2007). The following rules of thumb were also used: α<.50 unacceptable, .50≤ α<.60 poor, .60≤ α<.70 questionable, .70≤ α<.80 acceptable, .80≤α<.90 good, and α≥.90 excellent (George & Mallery, 2003).

Convergent validity was assessed by calculating Pearson's *r* correlation coefficients to examine whether the SOCS correlated with other measures consistent with hypotheses. Whilst no specific hypotheses were made regarding the correlation between the SOCS-O total and the BRS, SMFQ, and MPVS, these findings were explored. Hypotheses were not made about relationship between the SOCS-O/SOCS-S subscales, and the SCS-Y total and subscales, WEMWBS, CAMM, SMFQ, BRS, and MPVS, but these relationships were also explored. To account for multiple comparisons, a more stringent threshold for statistical significance was used (p<.01). For the criterion of convergent validity to be met, Terwee et al. (2007) require prespecified hypotheses to be made and at least three quarters of results to be consistent with hypotheses. Barker et al. (2002) also require at least two correlations at r≥.50. To examine discriminant validity, no correlations between the scales and other measures were expected to correlate at r≥.80 (Field, 2013), as to indicate that they were the same construct (e.g., compassion and mindfulness) or indistinguishable measures. Effect

sizes were evaluated using Cohen's (1988) benchmarks. r=.1-.3 were considered small, .3-.5 were considered medium, and over .5 were considered large.

Test-retest reliability was assessed by calculating intraclass correlation coefficients (ICC) for SOCS-O/SOCS-S total and subscale scores, across Time 1 and Time 2. Following Koo and Li's (2016) guidelines, ICC estimates were based on average-measures, absolute-agreement, 2-way mixed-effects models. Interpretation of ICC values were based on Portney and Watkin's (2009) guidelines. Values less than .5 were considered poor, between .5 and .75 were considered moderate, and greater than .75 were considered good.

Floor/ceiling effects were assessed by calculating the percentage of participants obtaining the lowest and highest possible scores. Less than 15% of respondents should obtain the lowest or highest score (Terwee et al., 2007).

Interpretability was tested by examining whether total SOCS-O and SOCS-S scores differed in relation to age, gender, year group, and SES. Gender and SES differences were tested with independent samples t-tests, age was tested with bivariate correlations and independent samples t-tests, and year group was tested with one-way ANOVAs. Gender and year group interactions were tested with two-way ANOVAs, and age and gender interaction were tested using Hayes' (2017) PROCESS macro (model 1) in SPSS, with outcome (Y) variable as self-compassion, predictor (X) as gender, and moderator (W) as age. Means and standard deviations for total and subscale scores for the total sample and participant subgroups are reported. As low numbers of participants identified as non-binary, other gender or did not indicate gender (N=17), these were not included for examining gender differences.

Preliminary Analyses

The data were checked for normality by assessing histograms, plots, and skew and kurtosis values. Data checks suggested the assumption of normality was violated for some measures. Whilst common in large samples and often unproblematic (Field, 2013), robust

methods were used for analyses, using bias corrected accelerated bootstrapping (BCa). Data were checked for outliers. Those identified were indicative of true values from natural sample variation.

Missing Data

Four hundred and eighty-nine participants submitted answers, and 132 participants started the questionnaire but did not submit answers. Three cases had a response time of less than ten minutes, suggestive of response bias and were therefore removed from the data, leaving the final sample comprising 486 participants. Out of a possible 486 participants, 482 and 477 participants completed all SOCS-O and SOCS-S items, respectively. Less than 5% of data was missing for all scales (0-3%), below the recommended cut-off points of 5% (Schafer, 1999) and 10% (Bennett, 2001). Little's MCAR was non-significant. It was therefore plausible that data was missing completely at random. Resultantly, missing data did not appear problematic, and analyses used pairwise deletion where possible. For sensitivity analysis, analyses were also run using listwise deletion, and results not materially different.

Results

Confirmatory Factor Analysis

Overall, 482 and 478 students completed all SOCS-O and SOCS-S items, respectively, and were included in CFA. Findings were equivalent for both scales. Fit indices indicated poor fit for the one-factor model, and good fit for the five-factor and five-factor hierarchical models. All item loadings for the five-factor and five-factor hierarchical models were significant (Appendix Q-T). All factor loadings were significant for the hierarchical models (Appendix U), although one loading above one for each scale suggested an improper solution. Findings were the same for the total sample, 11–13-year-olds and 14–16-year-olds. Fit indices for CFA models are shown in Table 2.

Table 2

Fit Indices for Compassion Models Tested for the Total Sample, 11-13-year-olds, and 14–16-year-old.

Scale	Sample	*N*	Model	CFI	RMSEA [90% CI]	TLI	SRMR	χ^2 (*df*)	AIC
SOCS-O	Total sample	482	One-factor	.810	**.086 [.080, .092]**	.788	**.073**	779.485 (170)	21397.578
			Five-factor	**.968**	**.037 [.029, .044]**	**.962**	**.037**	264.190 (160)	20698.386
			Five-factor hierarchical	**.962**	**.039 [.031, .046]**	**.957**	**.042**	286.436 (165)	20719.693
	Ages 11-13	197	One-factor	.793	**.094 [.084, .105]**	.769	**.091**	473.427 (170)	8867.041
			Five-factor	**.988**	**.024 [.000, .041]**	**.985**	**.047**	178.144 (160)	8492.302
			Five-factor hierarchical	**.979**	**.030 [.000, .046]**	**.976**	**.056**	195.338 (165)	8507.013
	Ages 14-16	284	One-factor	.814	**.086 [.078, .095]**	.793	**.071**	532.418 (170)	12579.301
			Five-factor	**.946**	**.048 [.038, .058]**	**.936**	**.049**	266.032 (160)	12251.127
			Five-factor hierarchical	**.944**	**.048 [.038, .058]**	**.935**	**.050**	274.649 (165)	12251.959
SOCS-S	Total sample	478	One-factor	.755	.122 [.116, .128]	.726	.113	1394.902 (170)	24032.550
			Five-factor	**.957**	**.052 [.045, .059]**	**.949**	**.044**	372.848 (160)	22731.166
			Five-factor hierarchical	**.947**	**.057 [.051, .064]**	**.939**	**.064**	428.536 (165)	22788.686
	Ages 11-13	196	One-factor	.755	.122 [.112, .131]	.726	.111	672.026 (170)	10056.956
			Five-factor	**.950**	**.056 [044, .068]**	**.941**	**.056**	261.466 (160)	9568.262
			Five-factor hierarchical	**.944**	**.059 [.047, .071]**	**.935**	**.069**	279.630 (165)	9579.801
	Ages 14-16	280	One-factor	.752	.126 [.118, .134]	.723	.119	941.343 (170)	14022.573
			Five-factor	**.955**	**.055 [.045, .065]**	**.947**	**.047**	298.763 (160)	13226.537
			Five-factor hierarchical	**.944**	**.061 [.052, .070]**	**.935**	**.070**	340.282 (165)	13265.532

Note. *N* = sample size; AIC = Akaike information criterion; CFI = comparative fit index; CI = confidence interval; NNFI = non-normed fit index; RMSEA = root mean square error of approximation; SRMR = standardised root mean square residual. Bold indices (CFI, RMSEA, NNFI, SRMR) indicate acceptable fit according to liberal cut-off criteria when rounded up or down to two decimal places.

Internal Consistency

Cronbach's alpha values are shown in Table 3. The total SOCS-O (.90 to .92) and SOCS-S (.94 to .96) had excellent internal consistency. Internal consistency for SOCS-O subscales was acceptable-good (.73 to .86) and SOCS-S subscales was good-excellent (.84 to .95). These values are considered adequate for measures of psychological constructs (Terwee et al., 2007).

Table 3

Cronbach's Alpha Coefficients for SOCS-O and SOCS-S Total and Subscales at Time 1 and Time 2

	SOCS-O				SOCS-S			
	Time 1		Time 2		Time 1		Time 2	
	N	*α*	N	*α*	*N*	*α*	N	*α*
Total scale	482	.92	70	.90	477	.94	68	.96
Recognising suffering	484	.85	70	.83	485	.86	70	.93
Understanding the universality of suffering	486	.76	70	.81	485	.84	70	.87
Feeling for the person suffering	484	.77	70	.73	482	.87	70	.89
Tolerating uncomfortable feelings	485	.73	70	.76	480	.85	68	.93
Acting of being motivated to act to alleviate suffering	486	.86	70	.80	484	.90	70	.95

Note. Listwise deletion. *α* = Cronbach's alpha

Convergent/Discriminant Validity

Correlation coefficients between total and subscale scores on the SOCS-O and SOCS-S, and other constructs are shown in Table 4. As predicted, the SOCS-S and SCS-Y total scales were significantly correlated at $r \geq .50$. The SOCS-S total was significantly correlated in expected directions with the CAMM, WEMWBS, BRS, SMFQ, with medium-large

correlations. The SOCS-S total was also significantly negatively correlated with the MPVS with small-medium effect, slightly weaker than predicted.

Consistent with expectations, the SOCS-O total was significantly positively correlated with the WEMWBS, with small effect. However, the SOCS-O total did not have a significant positive correlation with the CAMM and SCS-Y total as predicted. Exploration showed that the SOCS-O total was not significantly correlated with the SMFQ, BRS and MPVS.

Exploration also showed that over half of SOCS-O subscales and the majority of SOCS-S subscales were significantly correlated with SCS-Y-subscales. All SOCS-S subscales were significantly positively correlated with the SCS-Y total, whereas just one SOCS-O subscale was (tolerating). SOCS-S subscales were mostly significantly positively correlated with the WEMWBS, CAMM, SMFQ, BRS and MPVS, whilst only two SOCS-O subscales (tolerating and acting) were significantly correlated with the WEMWBS.

Overall, correlations were at $r < .80$, at least three quarters of results were consistent with hypotheses, and at least two correlations were $r \geq .50$, supporting convergent/discriminant validity of the scales.

Table 4 *Correlation Coefficients Between Total and Subscale Scores on the SOCS-O and SOCS-S and Other Constructs [95% bias-corrected and accelerated bootstrap confidence intervals]*

	SCS-Y-SK	SCS-Y-SJ	SCS-Y-CH	SCS-Y-IS	SCS-Y-MI	SCS-Y-OI	SCS-Y-total	WEMWBS	CAMM	SMFQ	BRS	MPVS
Sussex-Oxford Compassion for Others Scale (SOCS-O)	**.18*** [.09, .27]**	**-.14** [-.24, -.05]**	**.19*** [.10, .28]**	-.06 [-.15, .03]	**.17*** [.08, .26]**	**-.16*** [-.25, -.06]**	.04 [-.05, .14]	**.17*** [.07, .27]**	-.04 [-.15, .06]	.00 [-.09, .10]	-.05 [-.15, .06]	.01 [-.10, .12]
Recognising suffering	**.13** [.03, .23]**	**-.13** [-.22, -.02]**	**.12** [.03, .21]**	-.09 [-.18, .01]	.11 [.01, .21]	**-.16*** [-.25, -.06]**	-.00 [-.11, .10]	.12 [.02, .21]	-.09 [-.19, .01]	.06 [-.03, .15]	-.06 [-.16, .04]	.00 [-10, .10]
Understanding the universality of suffering	.12 [.04, .10]	**-.13** [-.23, -.04]**	**.15** [.06, .22]**	-.02 [-.12, .06]	**.15** [.06, .22]**	**-.15** [-.25, -.05]**	.02 [-.06, .10]	.10 [.01, .20]	-.01 [-.10, .08]	-.00 [-.09, .09]	-.04 [-.13, .06]	-.02 [-.12, .08]
Feeling for the person suffering	.11 [.01, .21]	**-.18*** [-.27, -.09]**	**.14** [.04, .24]**	-.06 [-.15, .03]	.11 [.01, .20]	**-.18*** [-.27, -.08]**	-.02 [-.11, .08]	.10 [.01., .20]	-.09 [-.19, .02]	.04 [-.06, .15]	-.09 [-.19, .01]	-.01 [-.12, .10]
Tolerating uncomfortable feelings	**.21*** [.13, .30]**	-.05 [-.14, .06]	**.22*** [.12, .32]**	-.03 [-.13, .07]	**.22*** [.13, .31]**	-.07 [-.17, .04]	**.13** [.02, .23]**	**.19*** [.10, .29]**	.06 [-.05, .17]	-.06 [-.16, .03]	.03 [-.08, .15]	.04 [-.06, .14]
Acting or motivation to act to alleviate suffering	**.16*** [.06, .26]**	-.10 [-.20, .00]	**.15*** [.06, .25]**	-.03 [-.12, .07]	.12 [.02, .21]	-.10 [-.20, .01]	.05 [-.04, .15]	**.18*** [.08, .28]**	-.04 [-.15, .07]	-.04 [-.14, .06]	-.04 [-.14, .07]	.01 [-.09, .12]
Sussex-Oxford Compassion for the Self Scale (SOCS-S)	**.77*** [.72 .82]**	**.28*** [.17, .39]**	**.54*** [.47, .61]**	**.17*** [.07, .27]**	**.65*** [.59, .71]**	**.19*** [.09, .29]**	**.64*** [.58, .70]**	**.66*** [.60, .72]**	**.38*** [.28, .46]**	**-.57*** [-.62, -.50]**	**.42*** [.34, .51]**	**-.22*** [-.32, -.12]**
Recognising suffering	**.46*** [.38, .54]**	.06 [-.06, .17]	**.34*** [.24, .43]**	-.06 [-.17, .04]	**.39*** [.29, .48]**	-.05 [-.16, .07]	**.28*** [.18, .37]**	**.38*** [.29, .47]**	**.16*** [.06, .25]**	**-.23*** [-.31, -.14]**	**.13** [.04, .24]**	**-.14** [-.24, -.04]**
Understanding the universality of suffering	**.20*** [.11, .28]**	-.02 [-.12, .08]	**.22*** [.13, .31]**	-.01 [-.11, .08]	**.22*** [.13, .31]**	-.08 [-.18, .02]	**.13** [.04, .22]**	**.21*** [.12, .30]**	.03 [-.07, .12]	**-.15** [-.25, -.05]**	.06 [-.03, .15]	**-.14** [-.23, -.05]**
Feeling for the person suffering	**.78*** [.73, .83]**	**.34*** [.23, .43]**	**.52*** [.44, .58]**	**.21*** [.11, .30]**	**.62*** [.55, .68]**	**.24*** [.13, .35]**	**.67*** [.61, .72]**	**.63*** [.57, .69]**	**.40*** [.30, .49]**	**-.56*** [-.63, -.50]**	**.43*** [.34, .52]**	**-.21*** [-.30, -.11]**
Tolerating uncomfortable feelings	**.74*** [.69, .80]**	**.37*** [.28, .47]**	**.51*** [.44, .58]**	**.26*** [.16, .35]**	**.66*** [.61, .72]**	**.32*** [.23, .42]**	**.71*** [.66, .75]**	**.66*** [.60, .72]**	**.45*** [.36, .53]**	**-.61*** [-.66, -.55]**	**.53*** [.45, .60]**	**-.18*** [-.27, -.09]**
Acting or motivation to act to alleviate suffering	**.79*** [.73, .83]**	**.28*** [.17, .38]**	**.52*** [.44, .60]**	**.24*** [.14, .33]**	**.62*** [.55, .68]**	**.22*** [.12, .31]**	**.66*** [.60, .71]**	**.67*** [.61, .72]**	**.38*** [.29, .46]**	**-.60*** [-.66, -.54]**	**.43*** [.35, .51]**	**-.21*** [-.30, -.11]**

Note. Listwise deletion. $N = 446$ (SOCS-O); $N = 445$ (SOCS-S); $^{**}p < .01$, $^{***}p < .001$. Bold correlation coefficients indicate statistical significance at $p < .01$.
SCS-Y-SK = Self-Compassion Scale – Youth (self-kindness subscale); **SCS-Y-SJ** = Self-Compassion Scale – Youth (self-judgement subscale); **SCS-Y-CH** = Self-Compassion Scale – Youth (common humanity subscale); **SCS-Y-IS** = Self-Compassion Scale – Youth (isolation subscale); **SCS-Y-MI** = Self-Compassion Scale – Youth (mindfulness subscale); **SCS-Y-OI** = Self-Compassion Scale – Youth (over-identification subscale); **SCS-Y-total** = Self-Compassion Scale – Youth (total scale); **WEMWBS** = Warwick-Edinburgh Mental Wellbeing Scale; **CAMM** = Child and Adolescent Mindfulness Measure; **SMFQ** = Short Mood and Feelings Questionnaire; **BRS** = Brief Resilience Scale; **MPVS** = Multidimensional Peer-Victimization Scale

Table 5

Correlation Coefficients Between SOCS-O and SOCS-S Total and Subscale Scores [95% bias-corrected and accelerated bootstrap confidence intervals]

	SOCS-O	1	2	3	4	5	SOCS-S	6	7	8	9	10
Sussex-Oxford Compassion for Others Scale (SOCS-O)	-											
1.Recognising suffering	**.76*** [.72, .80]**	-										
2.Understanding the universality of suffering	**.67*** [.61, .73]**	**.40*** [.31, .50]**	-									
3. Feeling for the person suffering	**.88*** [.85, .90]**	**.58*** [.50, .65]**	**.50*** [.41, .57]**	-								
4. Tolerating uncomfortable feelings	**.87*** [.85, .89]**	**.54*** [.46, .61]**	**.47*** [.36, .56]**	**.72*** [.67, .77]**	-							
5. Acting/ being motivated to act to alleviate suffering	**.88*** [.86, .60]**	**.54*** [.47, .62]**	**.49*** [.41, .56]**	**.73*** [.68, .78]**	**.80*** [.76, .83]**	-						
Sussex-Oxford Compassion for Self Scale (SOCS-S)	**.36*** [.27, .45]**	**.26*** [.17, .34]**	**.33*** [.24, .41]**	**.26*** [.16, .36]**	**.35*** [.04, .26]**	**.30*** [.21, .39]**	-					
6. Recognising suffering	**.39*** [.30, .47]**	**.41*** [.33, .49]**	**.30*** [.20, .40]**	**.28*** [.19, .37]**	**.32*** [.23, .43]**	**.26*** [.16, .36]**	**.73*** [.67, .78]**	-				
7. Understanding the universality of suffering	**.56*** [.47, .64]**	**.33*** [.24, .43]**	**.75*** [.69, .81]**	**.42*** [.32, .50]**	**.42*** [.32, .50]**	**.44*** [.34, .53]**	**.52*** [.45, .59]**	**.42*** [.33, .50]**	-			
8. Feeling for the person suffering	**.23*** [.13, .32]**	**.15*** [.05, .23]**	**.14** [.05, .24]**	**.17*** [.06, .27]**	**.25*** [.17, .34]**	**.21*** [.12, .30]**	**.91*** [.89, .92]**	**.51*** [.43, .58]**	**.30*** [.20, .38]**	-		
9. Tolerating uncomfortable feelings	**.16*** [.07, .25]**	.08 [-.01, .16]	.12 [.02, .20]	.09 [-.01, .18]	**.24*** [.15, .32]**	**.16*** [.07, .25]**	**.89*** [.87, .91]**	**.49*** [.40, .58]**	**.25*** [.17, .34]**	**.85*** [.83, .88]**	-	
10. Acting/ being motivated to act to alleviate suffering	**.23*** [.13, .32]**	**.14** [.04, .22]**	**.18*** [.08, .27]**	**.16*** [.06, .27]**	**.23*** [.14, .33]**	**.22*** [.12, .31]**	**.91*** [.90, .93]**	**.53*** [.45, .60]**	**.32*** [.23, .40]**	**.87*** [.84, .89]**	**.82*** [.79, .85]**	-

Note. Listwise deletion. $N = 473$; $^{**}p < .01$, $^{***}p < .001$. Bold correlation coefficients indicate statistical significance at $p < .01$.

Relationship Between Self-Compassion and Other-Compassion

Participants scored significantly higher on the SOCS-O (M=80.14, SE=.52) than the SOCS-S (M=67.44, SE=.69), t(472)=18.27, BCa 95% CI [11.39, 14.06], p< .001, d=.84. Correlations between total and subscale scores on the SOCS-O and SOCS-S are shown in Table 5. Total scores significantly correlated with medium effect (r=.36, p< .001). However, total scores may be artificially inflated due to the wording of three of four items from the universality of suffering subscale being the same for both scales. The correlation between the total SOCS-O and SOCS-S scores was therefore calculated excluding universality subscales and remained significantly correlated (r=.27, p< .001). Most SOCS-O and SOCS-S subscales were significantly correlated, with coefficients ranging between r=.14 (between the other-compassion universality subscale and self-compassion feeling subscale) and .75 (between the other-compassion and self-compassion universality subscales). The exception was between the SOCS-S tolerating subscale and recognising suffering, universality, and feeling subscales of the SOCS-O which were not significantly correlated.

Test-Retest Reliability

ICC estimates (Table 6) for the SOCS-O (.75 to .80) and SOCS-S (.82 to .92) indicated good test-retest reliability between Time 1 and Time 2 for total scales and subscales, with the exception of the SOCS-O ‘feeling’ subscale, which had moderate test-retest reliability (.67). Overall, findings suggest that the scales are stable measures of other-compassion and self-compassion, over time.

Table 6

ICC Estimates Using Average-Measures, Absolute-Agreement, 2-Way Mixed-Effects Model

	SOCS-O				SOCS-S			
			95% CI				95% CI	
	N	ICC	Lower	Upper	N	ICC	Lower	Upper
Total scale	70	.79	.66	.87	67	.92	.86	.95
Recognising suffering	70	.75	.61	.85	70	.82	.71	.89
Understanding the universality of suffering	70	.80	.65	.89	70	.82	.68	.90
Feeling for the person suffering	70	.67	.47	.80	69	.85	.75	.91
Tolerating uncomfortable feelings	70	.75	.60	.85	67	.89	.82	.93
Acting of being motivated to act to alleviate suffering	70	.76	.62	.85	70	.89	.83	.93

Note. ICC = intraclass correlation coefficient; 95% CI = 95% confidence interval

Floor/Ceiling Effects

Less than 15% of participants received the highest (100) or lowest score (20) on both scales. At Time 1, no participants received the lowest possible score, and 0.4% and 0.6% of participants received the highest possible score on the SOCS-O and SOCS-S, respectively. At Time 2, no participants received the lowest possible score, and 1.4% and 2.9% of participants received the highest possible score on the SOCS-O and SOCS-S, respectively. This suggests the scales capture variability in responses.

Interpretability

The means and standard deviations of SOCS-O and SOCS-S total and subscale scores are shown in Tables 7 and 8, for the total sample and participant subgroups.

Table 7

Means and Standard Deviations for SOCS-O Total and Subscale Scores for Total Sample and Participant Subgroups

		SOCS-O Total	SOCS-O Recognising	SOCS-O Universality	SOCS-O Feeling	SOCS-O Tolerating	SOCS-O Acting
	Total sample	80.22 (11.31); *n* = 482	14.93 (2.96); *n* = 484	18.12 (2.30); *n* = 486	15.13 (3.00); *n* = 484	15.75 (2.75); *n* = 485	16.25 (2.92); *n* = 486
	11-13	81.19 (11.50); *n* = 197	15.18 (3.00); *n* = 199	18.14 (2.46); *n* = 200	15.28 (3.03); *n* = 198	15.97 (2.77); *n* = 200	16.55 (3.04); *n* = 200
	14-16	79.54 (11.15); *n* = 285	14.76 (2.93); *n* = 285	18.10 (2.18); *n* = 286	15.03 (2.96); *n* = 286	15.59 (2.73); *n* = 285	16.05 (2.83); *n* = 286
Gender	Female	82.69 (10.33); *n* = 235	15.54 (2.78); *n* = 237	18.42 (2.09); *n* = 238	15.77 (2.76); *n* = 236	16.08 (2.63); *n* = 237	16.83 (2.74); *n* = 238
	Male	77.90 (11.75); *n* = 230	14.37 (3.02); *n* = 230	17.81 (2.47) *n* = 231	14.54 (3.11); *n* = 231	15.41 (2.84); *n* = 231	15.71 (3.00); *n* = 231
Age	11	82.95 (11.85); *n* = 59	15.40 (3.24); *n* = 60	18.05 (2.79); *n* = 61	15.80 (3.02); *n* = 60	16.38 (2.63); *n* = 61	17.07 (3.10); *n* = 61
	12	82.55 (9.95); *n* = 58	15.41 (2.81); *n* = 59	18.36 (2.52); *n* = 59	15.45 (2.78); *n* = 58	16.20 (2.48); *n* = 59	17.03 (2.77); *n* = 59
	13	78.91 (12.02); *n* = 80	14.84 (2.96); *n* = 80	18.04 (2.16); *n* = 80	14.76 (3.16); *n* = 80	15.49 (3.03); *n* = 80	15.79 (3.06); *n* = 80
	14	76.18 (11.71); *n* = 89	13.72 (3.19); *n* = 89	17.64 (2.41); *n* = 89	14.29 (3.15); *n* = 89	15.15 (2.83); *n* = 89	15.38 (2.69); *n* = 89
	15	81.30 (10.36); *n* = 157	15.29 (2.68); *n* = 157	18.32 (1.93); *n* = 158	15.41 (2.85); *n* = 158	15.88 (2.64); *n* = 157	16.37 (2.82); *n* = 158
	16	80.15 (11.48); *n* = 39	15.00 (2.69); *n* = 39	18.28 (2.43); *n* = 39	15.18 (2.73); *n* = 39	15.44 (2.80); *n* = 39	16.26 (3.00); *n* = 39
Year Group	7	83.30 (10.78); *n* = 79	15.44 (3.02); *n* = 80	18.07 (2.80); *n* = 81	15.85 (2.87); *n* = 80	16.54 (2.42); *n* = 81	17.20 (2.86); *n* = 81
	8	81.09 (11.69); *n* = 47	15.29 (3.14); *n* = 48	18.42 (2.26); *n* = 48	14.96 (3.10); *n* = 47	15.73 (2.89); *n* = 48	16.58 (3.13); *n* = 48
	9	77.81 (12.20); *n* = 85	14.48 (2.95); *n* = 85	17.73 (2.36); *n* = 85	14.68 (3.04); *n* = 85	15.25 (3.09); *n* = 85	15.67 (3.01); *n* = 85
	10	75.86 (11.43); *n* = 95	13.83 (3.12); *n* = 95	17.57 (2.43); *n* = 95	14.14 (3.15); *n* = 95	15.06 (2.71); *n* = 95	15.26 (2.71); *n* = 95
	11	82.11 (10.06); *n* = 176	15.41 (2.63); *n* = 176	18.54 (1.83); *n* = 177	15.60 (2.74); *n* = 177	15.99 (2.60); *n* = 176	16.54 (2.78); *n* = 177
Free School Meals	No	80.56 (11.02); *n* = 433	15.03 (2.84); *n* = 435	18.23 (2.12); *n* = 435	15.24 (2.98); *n* = 433	15.77 (2.73); *n* = 435	16.29 (2.88); *n* = 435
	Yes	77.97 (12.64); *n* = 36	14.28 (3.84); *n* = 36	17.26 (3.29); *n* = 38	14.18 (2.82); *n* = 38	15.68 (2.89); *n* = 37	16.13 (3.16); *n* = 38

Note. Standard deviations are given in parentheses.

Table 8

Means and Standard Deviations for SOCS-S Total and Subscale Scores for Total Sample and Participant Subgroups

		SOCS-S Total	SOCS-S Recognising	SOCS-S Universality	SOCS-S Feeling	SOCS-S Tolerating	SOCS-S Acting
	Total sample	67.42 (14.94); *n* = 477	14.74 (3.52); *n* = 485	17.52 (2.80); *n* = 485	11.62 (3.96); *n* = 482	11.15 (4.01); *n* = 480	12.44 (4.14); *n* = 484
	11-13	69.22 (14.99); *n* = 196	15.06 (3.65); *n* = 200	17.75 (2.74); *n* = 200	11.99 (4.11); *n* = 198	11.58 (3.86); *n* = 198	12.87 (4.09); *n* = 200
	14-16	66.17 (14.80); *n* = 281	14.52 (3.42); *n* = 285	17.36 (2.83); *n* = 285	11.36 (3.83); *n* = 284	10.85 (4.09); *n* = 282	12.14 (4.15); *n* = 284
Gender	Female	64.72 (14.36); *n* = 234	14.74 (3.54); *n* = 237	17.69 (2.79); *n* = 237	10.84 (3.91); *n* = 237	9.92 (3.72); *n* = 234	11.54 (4.06); *n* = 237
	Male	70.92 (14.82); *n* = 226	14.82 (3.51); *n* = 231	17.40 (2.79) *n* = 231	12.59 (3.80); *n* = 228	12.59 (3.83); *n* = 229	13.56 (3.95); *n* = 230
Age	11	73.37 (15.08); *n* = 59	15.72 (3.56); *n* = 61	17.98 (2.36); *n* = 61	13.23 (4.13); *n* = 61	12.36 (3.95); *n* = 59	13.97 (3.83); *n* = 61
	12	69.76 (13.39); *n* = 59	15.12 (3.50); *n* = 59	18.12 (2.68); *n* = 59	11.88 (3.87); *n* = 59	11.66 (3.55); *n* = 59	12.98 (4.04); *n* = 59
	13	65.67 (15.39); *n* = 78	14.50 (3.77); *n* = 80	17.30 (3.00); *n* = 80	11.10 (4.09); *n* = 78	10.94 (3.95); *n* = 80	11.95 (4.15); *n* = 80
	14	64.91 (13.22); *n* = 88	13.74 (3.31); *n* = 89	17.01 (2.85); *n* = 89	11.13 (3.29); *n* = 89	11.02 (3.72); *n* = 89	12.07 (3.89); *n* = 88
	15	66.93 (15.49); *n* = 155	14.83 (3.35); *n* = 157	17.48 (2.75); *n* = 157	11.52 (4.12); *n* = 156	10.83 (4.29); *n* = 155	12.36 (4.35); *n* = 157
	16	65.97 (15.55); *n* = 38	15.03 (3.75); *n* = 39	17.67 (3.09); *n* = 39	11.21 (3.86); *n* = 39	10.53 (4.22); *n* = 38	11.41 (3.95); *n* = 39
Year Group	7	73.13 (14.37); *n* = 79	15.78 (3.37); *n* = 81	17.98 (2.50); *n* = 81	13.02 (4.01); *n* = 81	12.38 (3.74); *n* = 79	13.89 (3.77); *n* = 81
	8	68.40 (14.13); *n* = 48	14.73 (3.78); *n* = 48	17.92 (2.84); *n* = 48	11.52 (3.94); *n* = 48	11.42 (3.66); *n* = 48	12.81 (4.17); *n* = 48
	9	64.49 (14.48); *n* = 83	14.31 (3.69); *n* = 85	17.11 (3.10); *n* = 85	10.89 (3.78); *n* = 83	10.71 (3.82); *n* = 85	11.62 (3.90); *n* = 85
	10	64.87 (14.46); *n* = 93	13.73 (3.29); *n* = 95	16.86 (2.91); *n* = 95	11.31 (3.65); *n* = 95	11.02 (3.91); *n* = 94	12.20 (4.15); *n* = 94
	11	67.32 (15.28); *n* = 174	15.02 (3.42); *n* = 176	17.76 (2.64); *n* = 176	11.50 (4.07); *n* = 175	10.80 (4.28); *n* = 174	12.20 (4.27); *n* = 176
Free School Meals	No	67.62 (14.54); *n* = 427	14.85 (3.41); *n* = 434	17.59 (2.72); *n* = 434	11.59 (3.86); *n* = 432	11.13 (3.96); *n* = 430	12.50 (4.06); *n* = 433
	Yes	65.37 (18.17); *n* = 38	13.63 (4.16); *n* = 38	17.05 (3.29); *n* = 38	11.61 (4.95); *n* = 38	11.08 (4.76); *n* = 38	12.00 (4.82); *n* = 38

Note. Standard deviations are given in parentheses.

Gender

As hypothesised, females (M=82.69, SE=.67) scored significantly higher on the SOCS-O than males (M=77.90, SE=.78), t(452.897)=4.66, BCa 95% CI [2.67, 6.78], p<.001, d=.43. Females (M=64.72, SE=.94) also scored significantly lower on the SOCS-S than males (M=70.92, SE=.99), t(458)=-4.56 BCa 95% CI [-8.84, -3.46], p< .001, d=-.43.

Age

There was a significant negative correlation between age and the SOCS-S, r=-.13, BCa 95% CI [-.22, -.04], p=.006, but not between age and the SOCS-O, r=-.06, BCa 95% CI [-.16, .03], p=.188. 11-13-year-olds (M=69.22, SE=1.07) scored significantly higher on the SOCS-S than 14-16-year-olds (M=66.17, SE=.88), t(475)=2.20, BCa 95% CI [-.01, 5.99], p=.028, d=.21.

School Year Group

There was a significant effect of year group for the SOCS-O, F(4,477)=7.66, p< .001, with a significant quadratic trend, F(1,477)=24.19, p< .001. Hochberg G2 post hoc tests were used due to unequal sample sizes and revealed significant differences in scores between year 7s (M=83.30, SE=1.21), with year 9s (M=77.81, SE=1.32) and year 10s (M=75.86, SE=1.17). There were also significant differences between year 11s (M=82.11, SE=.76), with year 9s (M=77.81, SE=1.32) and year 10s (M=75.86, SE=1.17).

There was a significant effect of year group for the SOCS-S, F(4,472)=4.54, p=.001, with a significant quadratic trend, F(1,472)=11.36, p< .001. Hochberg G2 post hoc tests revealed significant differences in scores between year 7s (M=73.13, SE=1.62) with year 9s (M=64.49, SE=1.59), year 10s (M=64.87, SE=1.50), and year 11s (M=67.32, SE=1.16).

SES

Participants receiving free school meals (M=77.97, SE=2.10) scored lower on the SOCS-O than those that were not (M=80.56, SE=.53). This difference was not significant,

t(39.544)=-1.19, BCa 95% CI [-6.93, 1.96], *p*=.241. Similarly, participants receiving free school meals (*M*=65.37, *SE*=2.95) scored lower on the SOCS-S than those that were not (*M*= 67.62, *SE*=.70). Again, this difference was not significant, *t*(41.325)=-.74, BCa 95% CI [-7.37, 2.89], *p*=.461.

Interaction Effects

Descriptive statistics for total scores by age and gender, and year group and gender are shown in Table 9 and 10. There was a significant interaction between age and gender for the SOCS-S, indicating the relationship between gender and self-compassion is moderated by age, R^2=.078, *F*(3, 456)=12.88, *p*<.001, *B*=2.61, *t*(456)=2.94, *p*=.003 (Table 11). The effect of age on self-compassion was different for male and females. Age had little effect on self-compassion for males, and greater effect for females, with self-compassion declining in females as age increased. Simple slopes analysis and interaction plot (Appendix V) showed a significant relationship between gender and self-compassion for average age (13.72) (*B*=6.19, 95% CI [3.56, 8.82], *t*=4.62, *p*< .001) and higher age (15.23) (*B*=10.15, 95% CI [6.41, 13.88], *t*=5.34, *p*< .001). The Johnson-Neyman method (Field, 2013) indicated a significant relationship between gender and self-compassion from 12.75 years (*p*=.022). The relationship strength increased with age.

Table 9

Means and Standard Deviations for SOCS-O and SOCS-S Total Scores by Age and Gender

	Age 11		Age 12		Age 13		Age 14		Age 15		Age 16	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
SOCS-O												
n	32	23	25	30	40	38	34	54	82	69	22	16
M	85.25	81.57	82.24	82.77	82.55	75.21	81.74	72.63	83.34	79.04	78.73	82.69
SD	10.72	11.33	10.48	9.10	10.57	12.64	8.70	12.15	9.62	11.13	13.45	8.06
SOCS-S												
n	32	23	26	30	40	36	34	53	81	68	21	16
M	74.12	75.13	66.96	72.33	63.85	68.03	64.44	65.53	62.43	73.29	58.52	76.44
SD	15.01	12.68	13.56	12.80	14.24	16.81	14.03	12.71	13.07	16.35	14.48	10.68

Note. *N* = 465 (SOCS-O); *N* = 460 (SOCS-S); *M = mean; SD = standard deviation*

Table 10

Means and Standard Deviations for SOCS-O and SOCS-S Total Scores by Year Group and Gender

	Year 7		Year 8		Year 9		Year 10		Year 11	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
SOCS-O										
n	42	33	19	25	41	41	36	59	97	72
M	84.69	82.85	81.63	80.44	81.59	74.07	81.44	72.46	82.95	81.38
SD	9.96	10.22	11.52	11.67	11.17	12.52	9.06	11.44	10.39	9.90
SOCS-S										
n	42	33	20	25	41	39	35	58	96	71
M	73.29	74.85	64.30	71.68	63.68	66.03	63.00	66.00	62.13	75.52
SD	14.36	12.52	15.38	12.31	12.88	16.30	14.99	14.14	13.37	14.57

Note. *N* = 465 (SOCS-O); *N* = 460 (SOCS-S); *M = mean; SD = standard deviation*

Table 11

Linear Model of Predictors of Self-Compassion with Gender and Age Interaction

		b	SE *B* [95% percentile bootstrap confidence interval]	*t*	*p*
Model 1 R^2 = .078	Constant	128.24	18.54 [91.94, 164.23]	6.82	.000
	Gender (X)	-29.62	11.93 [-52.88, -6.39]	-2.42	.016
	Age (W)	-5.08	1.34 [-7.74, -2.43]	-3.73	.000
	Gender*Age (XW)	2.61	.87 [.94, 4.32]	2.94	.003

Note. N = 460; B = unstandardised beta; SE B = standard error for unstandardised beta; t = test statistic; R^2 = proportion of variance in the dependent variable predicted from independent variable.

There was a significant interaction between school year group and gender for the SOCS-O, $F(4, 455)=2.67$, $p=.032$. This indicates that the effect of year group on other-compassion was different for male and female participants. Other-compassion was similar for males and females in year 7 and 8. Whilst scores for females remained relatively stable from year 8-10, males showed greater decline in other-compassion than females in year 9 and 10. Other-compassion returned to similar levels for males and females in year 11. There was also a significant interaction between year group and gender for the SOCS-S, $F(4, 450)=3.78$, $p=.005$. Self-compassion was similar for males and females in year 7, but females had a stronger decline in scores than males in year 8. Whilst scores were relatively stable for both genders in year 9 and 10, females showed steady decreases and scores reached their lowest in year 11. Meanwhile, males had increases, with scores reaching their highest in year 11. Interaction plots are shown in Appendix W-X.

Discussion

The aim of this research was to evaluate the psychometric properties of two parallel measures of compassion, the SOCS-O and SOCS-S, with young people. Findings suggest the scales are psychometrically robust measures of other-compassion and self-compassion for young people. The scales would score higher than other compassion measures for young people, using the quality criteria outlined in Section A.

Items were not changed following consultation with young people, suggesting they were sufficiently readable and understandable. Whilst comprehensibility is integral to content validity, scales still require testing with the target population to assess psychometric properties and provide confidence in their use (Boateng et al., 2018). As highlighted in Section A, it cannot be assumed that items developed for adults are suitable for young people without consultation, followed by testing psychometric properties, as is best practise (Boateng et al., 2018).

As predicted, both the five-factor model and five-factor hierarchical model were a good fit to the data for both scales, for the total sample, and for younger (11-13 years) and older (14-16 years) subsamples. Findings are congruent with Gu et al. (2020) and confirm the factor structure of the scales is the same with young people, as with adults. Internal consistency of both scales was excellent, and subscales were acceptable-excellent. The scales demonstrated stability over time, with good test re-test reliability for total scales, and moderate-good test re-test reliability for subscales. There was no indication of floor/ceiling effects.

Interpretability of scores was facilitated. A significant negative relationship was found between age and self-compassion, but not for other-compassion, and 11-13-year-olds reported significantly higher self-compassion than 14-16-year-olds. There was also a significant effect of year group for both scales, showing a trend for compassion to decrease

across year groups followed by increases in year 11. Whilst Neff et al. (2021) found no significant effect of age for self-compassion, findings were consistent with the trend for self-compassion to decrease with grade.

As predicted, and consistent with research, females had significantly higher levels of other-compassion than males, and males had significantly higher levels of self-compassion than females (Bengtsson et al., 2016; Cunha et al., 2021; Gu et al., 2020; Yarnell et al., 2015).

Significant interactions were found for age and gender, and year group and gender, for self-compassion. Age had greater effect for females, with self-compassion declining in females as age increased. As hypothesised, older females had the lowest self-compassion scores. Moreover, females had a stronger decline in self-compassion than males in year 8 and showed steady decreases in self-compassion, reaching lowest levels in year 11. Meanwhile, males showed increases, with scores reaching their highest in year 11. Findings are congruent with research indicating that self-compassion decreases with age, particularly for females (Bengtsson et al., 2016; Bluth & Blanton, 2015). Whilst Neff et al. (2021) found no interaction effects, they found a trend for males to score slightly higher than females, and for slight decreases in self-compassion for females with increasing age. There was also a significant interaction for year group and gender, for other-compassion. Female scores remained relatively stable, whilst males showed stronger decline, with lower levels than females in year 9 and 10.

The developmental literature suggests that older young people have an increasingly negative sense of self, and females become more self-critical with age, feel more easily isolated (Bengtsson et al., 2016) and show increases in internalising problems (Hayward & Sanborn, 2002). Females are also suggested to have a predisposition to a caring-giving mentality, showing these behaviours more than males from early ages (Gilbert, 2010). This

could suggest a societal gender influence on other-compassion, with gender roles reinforced and internalised in childhood (Maccoby, 2000). Gender inequality (Ridgeway, 2011) may also influence self-criticism and levels of self-compassion amongst females.

The influence of SES (free school meals) on other- and self-compassion was explored. Whilst differences were small and non-significant, there was a trend for those from lower SES backgrounds to score slightly lower on both scales. This contrasts with research with adults suggesting those from lower SES backgrounds are more compassionate towards others (Piff & Moskowitz, 2017). Possible explanations for this difference are that children are still developing and making sense of their experiences, in addition to the development of compassion being a complex interaction between biological and social factors (Roeser et al., 2018). Those receiving free school meals come from the most disadvantaged backgrounds and are therefore more likely to experience greater adversity early in life (Gorard, 2012).

There was evidence for convergent/discriminant validity. As predicted, the SOCS-O was significantly positively correlated with wellbeing, with small effect. The SOCS-S was significantly correlated in hypothesised directions with mindfulness, wellbeing, resilience, depression, and peer victimisation with mostly medium-large correlations, but not so large as to be indicative of measuring the same construct. Like Gu et al. (2020), differences existed between the SOCS-O and SOCS-S, in relation to associations with psychological and social wellbeing measures. This also complemented research with adolescence, suggesting other-compassion was less related to psychological and social wellbeing (Henje et al., 2020). The SOCS-S total and subscales were significantly correlated with mindfulness, wellbeing, resilience, depression, and peer victimisation, with just two non-significant correlations. However, the SOCS-O total and two subscales were significantly correlated with wellbeing, and there were no significant associations with mindfulness, resilience, depression, or peer victimisation. Whilst the relationship between the SOCS-S and other constructs supported

previous research (Marsh et al., 2018; Neff & McGehee, 2010; Neff et al., 2021), the non-significant relationship between the SOCS-O and mindfulness contrasted with a recent adolescent study (Heidary et al., 2022) and SOCS findings with adults (Gu et al., 2020). Possible reasons include research examining relationships between other-compassion with other constructs in young people is in its infancy, using measures with psychometric weaknesses. The relationship between the two constructs may also be different in young people.

We found a significant small-medium correlation between the SOCS-O and SOCS-S, supporting research demonstrating a positive relationship between other- and self-compassion in young people (Cunha et al., 2021; Sousa et al., 2022). Findings were also congruent with Gu et al. (2020), indicating that the strength of the relationship between these two orientations of compassion is similar in young people and adults. This supports suggestions that research finding little empirical overlap may partly be due to limitations of existing compassion measures (Gu et al., 2020). Interestingly, the SOCS-O total was not significantly correlated with the SCS-Y total and just one subscale (tolerating) had a significant correlation. Furthermore, whilst the SOCS-S was significantly strongly correlated with the SCS-Y (r=.64), this correlation may be anticipated to be stronger given they are measuring the same construct, particularly as the correlation between the SOCS-S and wellbeing was r = .66. The SOCS and SCS-Y being based on different conceptualisations of compassion, and the psychometric limitations of the SCS-Y may have contributed to this.

Mean SOCS scores were similar scores for adults (371 undergraduate students, 88% female) (Gu et al., 2020) for other-compassion (M=81.16,,SD=11.31) and self-compassion (M=69.66,,SD=11.11) with the difference in means being 0.94 and 2.24, respectively. Finding the same factor structure for children and adults suggests that the construct of compassion is similar from adolescence to adulthood, involving the five elements proposed

by Strauss et al. (2016). It also supports theory that adolescence represents early stages of more adult type of compassion, based on more complex understanding of the self, others, and the ability view experiences from a third person or societal perspective (Bengtsson et al., 2016; Selman, 1980). However, it is not possible to directly compare across studies with important demographic differences, with the adult sample being a well-educated predominantly female sample. Given this, and with research highlighting complex interactions between biological and social factors in the development of compassion (Roeser et al., 2018), longitudinal research using the SOCS would be needed to more robustly explore the development of compassion from adolescence into adulthood and contributing factors to its development.

Clinical Implications

Self-compassion was related to increased wellbeing, mindfulness and resilience, and decreased depression and peer victimisation, and other-compassion was related to increased wellbeing. Whilst causal conclusions cannot be drawn, findings suggest CBIs may have the potential to improve the psychological and social wellbeing of young people. The decline in self-compassion with increases in age suggest that offering CBIs early in secondary school may be beneficial, particularly for females, supporting the idea of adolescence as a 'window of opportunity' for the development of compassion (Roeser & Pinela, 2014). Adolescence is also suggested to represent early stages of adult-type compassion, based on a complex understanding of the self, and others, and the ability to view experiences of the self and others from a third person or societal perspective (Bengtsson et al., 2016; Selman, 1980) following development of various capacities during adolescence (e.g., empathy, perspective taking, prosocial behaviour). This also supports CBIs being offered during this time.

However, including females in CBIs could also be viewed as individualising systemic failings, and highlights the need for wider systemic changes related to gender inequality

(Ridgeway, 2011).

The study also adds to the limited literature on other-compassion in young people, and its relationship with other constructs. A recent study found that adolescents may be less inclined to feel compassionate witnessing harm to others they dislike or those in the out-group (Peplak & Malti, 2022). This suggests that offering CBIs that include perspective-taking exercises centred around diverse groups may be impactful during adolescence and have the potential to increase other-compassion, which was associated with wellbeing.

Robust measures for assessing compassion are integral to advancing compassion research with young people. Findings support the use of the SOCS-O and SOCS-S with young people aged 11 and over in research and practice. Limitations in compassion research were addressed by validating theoretically informed and psychometrically robust measures of compassion developed with adults, with young people. The scales demonstrated good psychometric properties with young people and can therefore enable the development of the evidence base for CBIs with young people, by aiding evaluation of their effectiveness and mechanism of action, with RCTs particularly needed (Ferrari et al., 2019; Kirby et al., 2017). They also offer opportunities for longitudinal research to be conducted, for example, examining compassion over the lifespan.

The SOCS have potential to be used for different purposes. For example, to examine changes following individual or group CBIs, or to assess levels of compassion in schools. It would also be interesting to use the scales to explore compassion at a societal level across cultures. However, validity needs to be established when using scales in different contexts (Boateng et al., 2018), particularly given the complex interactions between biological (temperament) and social factors (parenting, community influences) in the development of compassion (Roeser et al., 2018).

Limitations and Future Research

Whilst fit indices indicated the five-factor hierarchical model was a good fit to the data for both scales, each had one factor loading above one suggesting an improper solution. Therefore, although fit indices support the use of total scores, these should be treated with caution and subscale scores also used.

The cross-sectional design does not allow cause-and-effect relationships to be established. The SOCS are self-report scales, bringing the limitation of potential for bias and incomplete picture of compassion. It would be beneficial for future research to explore whether the SOCS are consistent with non-self-report methods of assessing compassion in young people, such as parent or teacher interviews.

Whilst the SOCS were validated in an adequate sample size of 11–16-year-olds, participants were from one UK school, with lower free school meal eligibility (8%) than local (17.6%) and national averages (22.5%) (Department for Education, 2022). This suggests a higher-than-average SES of students. Participants were also predominantly White (86.4%), a lower percentage than the local average (92.2%), but higher than the national average (81.7%) (Office for National Statistics, 2022). This limits the generalisability of the findings. Just one school expressing interest could suggest lack of acceptability of the research. However, challenges in recruitment to school-based research (e.g., time) are common and are likely to have been amplified following the COVID-19 pandemic (Barker & Hartwell, 2021).

It may be helpful for future research to examine the psychometric properties of the scales in a wider number of schools, with greater diversity. Future research could also cross-validate the factor structures of the scales with samples in other countries. The current study used a community sample. However, future research could be conducted with clinical samples to examine sensitivity of the scales to therapeutic change following CBIs.

Not all students were given the opportunity to take part. Scheduling is a common challenge in school-based research (Bartlett et al., 2017), and offering the opportunity to all

classes would have impacted the curriculum. Convenience sampling is commonly used in school-based research (Bartlett et al., 2017), and incorporating research into the usual curriculum is considered an ethical approach (BPS, 2021). It is also common for more sensitive topics to be discussed in PSHE, and the SMHL voiced that timetabling of classes was 'random' and would provide a sample of participants in different year groups with differing abilities, which can be considered a strength.

The inability to determine an accurate response rate could raise uncertainty around acceptability of the research. However, the SMHL reported that most students took part, suggesting that taking part was considered acceptable. Whilst measures were put in place to minimise detrimental impact to participants, use of an anonymous survey with sensitive questions could be considered a limitation. For example, disclosures of bullying could not be followed up, which could have felt discouraging for participants. However, the advantages of keeping the survey anonymous were considered to outweigh the disadvantages.

The sample was limited to secondary school students, aged 11-16. However, given the SOCS was validated with 11-16-year-olds, it can be assumed that the measure would be suitable for use with 17-year-olds. However, future research would benefit from conducting research with college students, to understand how compassion changes over this transition.

Whilst convergent validity was assessed, additional measures could have been used. For example, whist an existing youth measure of self-compassion was included, another other-compassion measure was not. It may also be helpful for future research to examine the extent to which compassion (measured with the SOCS) overlaps with social desirability, so this can be taken into account when interpreting findings.

Information about the frequency of bullying was not fed back to the school. It was intended that participants would be recruited through multiple schools, with participation being anonymous. Therefore, providing individualised school feedback would not have been

possible, and whilst anonymised, consent was not sought from participants to share this data with the school. Although multiple schools were approached, the data was obtained from one school. In hindsight, it may have been helpful to have interpreted this data to provide the school with information to increase their awareness around bullying frequency, and the proportion of participants experiencing different types of bullying. If bullying was higher than expected or was associated with particular demographics, this would have enabled the school to respond appropriately, such as reflecting on existing anti-bullying strategies, adapting their approach, and implementing more targeted evidence-based anti-bullying strategies. This is an area of learning for future research, requiring further consideration. This could include consultation with young people around how comfortable they would feel about this information being shared with school, particularly given the importance for young people of understanding how research data is used (Demkowicz et al., 2020a), as well as the inclusion of an additional item on the consent form related to sharing this information.

Conclusion

The study validated the SOCS-O and SOCS-S with young people to address limitations in compassion research with the aim of advancing research. For both scales, CFA supported the use of scores for total scales and five subscales: 1) recognising suffering; 2) understanding the universality of human suffering; 3) feeling empathy for the person suffering and connecting with the distress (emotional resonance); 4) tolerating uncomfortable feelings aroused in response to the suffering person (e.g., distress, anger, fear); and 5) motivation to act/acting to alleviate suffering. Both scales demonstrated good psychometric properties, in terms of internal consistency, test-retest reliability, floor/ceiling effects, interpretability, and convergent/discriminant validity. Overall, findings suggest that the scales are valid and reliable measures of other- and self-compassion, when used with young people aged 11-16, supporting their use in research and practice.

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Appendix A

Outline of main areas requiring consultation sent to participation leads

Consultation with Young People

Readability

- Sussex-Oxford Compassion Scales
- Participant information sheet
- Participant debrief sheet

Is the language used in these documents accessible to young people aged 11-17?
Are there any words that you don't understand or words that you think should be changed?
Please offer any suggestions you have for word changes.

Length and format

- How long did it take you to complete the study? Ideally, we would like to keep all measures in the study. Do you think this an acceptable length if completed as part of a lesson at school, or would you prefer for one measure to be removed?
- Do you prefer to have a progress bar at the bottom, or not?

Prizedraw

Currently young people will have the chance to win one of four, £25 shopping vouchers. The following are also options:

- One of two £50 shopping vouchers
- One of five £20 shopping vouchers
- One of six £15 shopping vouchers
- One of ten £10 shopping vouchers

Which would you prefer?

Any other comments or recommendations?

Appendix B

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Appendix C

Invitation e-mail sent to schools

Dear [insert name],

My name is Jasmine Hubbard, and I am a trainee clinical psychologist at Salomons Institute for Applied Psychology, Canterbury Christ Church University (CCCU). As part of my doctorate in clinical psychology, I am conducting a research project that aims to validate a measure of self-compassion, and compassion for others, for use with young people.

I am writing to you as I am currently recruiting participants from secondary schools (young people aged 11-17 years). Please find attached the 'headteacher information sheet' which gives a more detailed description of the research project, which has been approved by The Salomons Ethics Panel, Salomons Institute for Applied Psychology, CCCU.

The study would need to take part within normal school hours to reduce disruption for students. The research requires students to have access to a device that connects to the internet to access the online questionnaire (computer, laptop, iPad), and would be expected to take around 30 minutes in total. However, if there are challenges around access to devices, I can provide paper copies of the questionnaires. The study will require parental opt-out consent forms and information sheets to be sent out a minimum of a week prior to the study taking place. All participating schools and students will remain anonymous when reporting the research findings.

Schools that take part will be offered the opportunity to opt-in to receive a one-hour workshop for teachers around empathy and compassion, from the charity Mind with Heart (https://www.mindwithheart.org/)

If you are happy for your school to take part, a consent form would need to be completed (see attached). I have also attached a PDF version of the Qualtrics survey that students would be asked to complete, in addition to the parent/guardian information sheet.

I would be very interested in discussing the project with you and the possibility of conducting part of it at your school. I look forward to hearing from you and am happy answer any questions you might have at a time that is convenient for you.

Best wishes,
Jasmine Hubbard
Trainee Clinical Psychologist

Appendix D
Headteacher information sheet

Canterbury Christ Church University
Salomons Institute for Applied Psychology
One Meadow Road, Tunbridge Wells, Kent TN1 2YG
www.canterbury.ac.uk/appliedpsychology

Headteacher Information Sheet

Project Title: Validation of the Sussex-Oxford Compassion Scales (SOCS) for Use with Young People
Name of Researcher: Jasmine Hubbard

My name is Jasmine Hubbard, and I am a trainee clinical psychologist at Salomons Institute for Applied Psychology, Canterbury Christ Church University. I have an enhanced DBS certificate. I am working under the supervision of Dr Tamara Leeuwerik (Senior Research Lecturer at Salomons) and Dr Clara Strauss (Consultant Clinical Psychologist and Research Lead for the Sussex Mindfulness Centre in Sussex Partnership NHS Foundation Trust). I would like to invite your students to take part in an online research study about compassion. Before you decide if you would like your school to take part, it is important that understand why the research is being done and what it would involve for your school.

Part 1 explains the purpose of the study and what will happen if your school takes part. Part 2 gives more detailed information about the conduct of the study.

PART 1

What is the purpose of the study?
The study aims to validate a measure of self-compassion, and compassion for others, for use with young people. This will help advance research in the field of compassion by enabling robust research to be conducted, for example, evaluating the outcome of compassion-based interventions that aim to teach young people skills to support their wellbeing. The study will also increase our understanding of compassion in young people, and how compassion is related to psychological and social wellbeing, such as depression and peer victimisation.

Why has my school been invited to take part?
Compassion research with young people is more limited than research with adults due to the lack of validated compassion measures for young people. We are looking for young people aged 11-17 that live in the UK and that can read English, to participate in the study.

Does my school have to take part?
Your school does not have to take part. If you agree for your school to take part, I will then ask you to distribute information sheets and opt-out consent forms (for children under 16) to the parents/guardians of students that will take part in the study. I will also ask you to send information sheets to the students who will be asked to take part at the same time, so that they can discuss the study with their parent/guardian. I will then ask you to distribute debrief sheets to parents/guardians and students following the study. I will discuss with you, or a teacher designated to help co-ordinate the research, how debrief sheets can be tailored to your school. The method of distribution for these documents will be discussed in advance and can be adapted to align with standard school procedures for sending out information and returning forms.

If you decide you would be happy for your school to take part, please sign the attached form and return it to me as soon as possible. You are free to decline for your school to take part without giving a reason. If you do not return your consent form, we will assume that you do not wish for your school to take part.

What will happen to students if they take part?
If you choose for your school to take part, we will have a discussion together about which students should be invited to participate in the study. The online study will last around 30 minutes and take place at school, during school hours. The questionnaire is on a website called Qualtrics. Each student will be asked to provide their consent (assent for under 16s) online on Qualtrics at beginning the study. Students will be asked to complete a series of online multiple-choice questions related to compassion, wellbeing, depression, experiences of bullying, goals for learning, resilience, and mindfulness. They will also be asked some questions about themselves (e.g., age,

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gender, ethnicity etc.). This information will help us know whether the people that take part in the study are representative of the population. All responses will be confidential, and nobody will be able to identify individual responses or the names of participating schools. Responses given by students will not be shared with school or families, to maintain confidentiality.

Students will have the chance to win one of five, £20 shopping vouchers. If they choose to enter the prize draw, they will be asked to give their e-mail address at the end of the questionnaire, or initials and tutor group if they do not have an e-mail address. They do not have to enter the draw or give their e-mail address, initials, or tutor group.

At the end of the questionnaire, students will be asked if they would like to complete a shorter questionnaire in 2-3 weeks. They will be asked to provide their e-mail if they are happy to be contacted. Not all students will be offered this opportunity, as we only need a smaller number of people to complete the shorter questionnaire. Those who take part in the shorter questionnaire will have a second chance to enter a prize draw, to win one of two £20 shopping vouchers. The shorter questionnaire will help us see if our compassion questions are reliable.

I will discuss with you or the designated teacher different activities that could be given to students who do not have parental consent or provide consent (assent for under 16s) themselves, in addition to those who decide to stop taking part.

What are possible disadvantages and risks of taking part?
We do not expect that answering the questions will be upsetting for most students. However, there are some questions related to depression that ask about difficult thoughts and feelings, as well as experiences of being bullied. It is possible that these questions may be upsetting for some young people that have recently been bullied or have experienced difficult thoughts or feelings. If you think these questions would be upsetting for any students, we advise that they do not take part in the study. Students will also be encouraged to speak to their parent/guardian or designated teacher if they have any concerns. If any disclosures of concern are made during the study, school procedures will be followed. This will be discussed with you in advance.

What are the possible benefits of taking part?
The study will help advance compassion research with young people, which will help support compassion-based interventions and approaches being offered in schools to improve student wellbeing.

What if there is a problem?
Any complaint about the way you, parents/guardians or students have been dealt with during the study, and any possible harm students might suffer will be addressed. Detailed information on this is given in Part 2. Before the study takes place, if parents/guardians or students have questions, then parents/guardians can contact the designated teacher or send me an email on their child's behalf. If students have questions on the day, they can ask their teacher (or myself if I am present on the day). However, if any students have questions that they would rather have addressed individually than in front of the class, they will be advised to speak to the designated teacher in advance. I will discuss with you or a designated teacher the most suitable way to speak to students who have a concern in advance. If students have any concerns during the study, they will be informed that they can raise their hand to speak to the teacher (or myself if I am present on the day).

Will information about my school or students be kept confidential?
Yes. We will follow ethical and legal practice and all information about your students will be handled in confidence. The details are included in Part 2.

This is the end of Part 1. If the information in Part 1 has interested you and you are considering participation, please read the additional information in Part 2 before deciding.

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PART 2

What will happen if a student does not want to carry on with the study?
During the study, students can withdraw from the study at any time without giving a reason. They can withdraw by closing the webpage. Students will be advised to let the teacher know so they can be given a different activity. Any incomplete questionnaires will not be included in the study. Withdrawal from the study is possible up until participants submit their responses. After students submit their responses, we will not be able to withdraw their data as we will not be able to identify their responses. Students who agree to complete a shorter questionnaire in 2-3 weeks can decide not to take part by not completing the second questionnaire.

What if there is a problem?
If a student has any concerns, they will be encouraged to speak to a parent/guardian or designated teacher who can contact me and/or make a formal complaint.

Complaints
If you wish to contact me about the study, please email me on j.hubbard1240@canterbury.ac.uk and I will do my best to address your concerns. You can also contact me by leaving a message on the 24-hour voicemail phone number 01227 927070. Please leave a contact number and say that the message is for Jasmine Hubbard, and I will get back to you as soon as possible. If you remain dissatisfied and wish to complain formally, you can do this by contacting Dr Fergal Jones, Clinical Psychology Programme Research Director, Salomons Institute for Applied Psychology– fergal.jones@canterbury.ac.uk

Will information from students taking part in the study be kept confidential?
Once all participants have completed the questionnaire, all participants' responses will be downloaded from Qualtrics to a secure university file space. All participants' responses will be deleted from Qualtrics at the end of the study. Information on Qualtrics' security can be found here: https://www.qualtrics.com/uk/platform/gdpr/

The responses students give will be kept securely, in a password protected data file on a secure university file space. Students' data will be confidential and will be made anonymous. Information given for the prize draw that could identify students (e-mail address/initials and tutor group) will be stored separately from the rest of the data and deleted after the prize draw. For those who agree to complete a shorter questionnaire in 2-3 weeks, email addresses will be deleted after completing the second questionnaire.

The data will be kept for 10 years as is required by Canterbury Christ Church University for research projects. The University's research privacy notice can be found here: https://www.canterbury.ac.uk/university-solicitors-office/docs/research-privacy-notice.docx Only those authorised to look at data (the researcher and supervisors) will have access to the questionnaire responses. The researcher hopes to get this study published in a psychology journal, but all schools and students will remain anonymous.

What will happen to the results of the research study?
This research is due to be completed by September 2023. The results will be submitted for publication in a journal for other psychologists and professions to see. School names and student names will not be included in this publication. You will be sent an overall summary of the results of the study, which you can forward on to students and parents/guardians. No student names will be included, and it will not be possible to tell which students gave which responses.

Who is organising and funding the research?
Canterbury Christ Church University.

Who has reviewed the study?
This study has been reviewed and given favourable opinion by The Salomons Ethics Panel, Salomons Institute for Applied Psychology, Canterbury Christ Church University.

If you would like to speak to me and find out more about the study or have questions about it answered, you can e-mail me on j.hubbard1240@canterbury.ac.uk and I will reply as soon as I can.

Thank you for taking the time to read this information.

Appendix E

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Appendix F

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Appendix G

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Appendix H

Headteacher consent form

Canterbury Christ Church University

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Headteacher Consent Form

Project Title: Validation of the Sussex-Oxford Compassion Scales (SOCS) for Use with Young People
Name of researcher: Jasmine Hubbard

Please initial or tick each box:

☐ I confirm that I have read and understood the information sheet for the compassion research project and have had the opportunity to ask questions.

☐ I understand that that parents/guardians and students will need to be sent information sheets fully informing them about the nature of the research a minimum of 1 week prior to the study taking place, to give sufficient time to opt-out from participating in the study.

☐ I understand that the students participating are doing so voluntarily and that they are free to withdraw their consent/assent at any time without explanation, before submitting their answers.

☐ I understand how to contact the researcher if I have any concerns or questions.

☐ I am willing to act in loco parentis, consenting for students whose parents have not contacted me to opt-out, to take part in the study.

☐ I understand that anonymous data from my school may be used in published reports of the study findings.

Name of school:

Name of Headteacher or designated other:

Date:

Signature:

Name of researcher obtaining consent: Jasmine Hubbard, Trainee Clinical Psychologist

Date:

Signature:

Appendix I

Participant information sheet

Canterbury Christ Church University

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PARTICIPANT INFORMATION SHEET

Project Title: Validation of the Sussex-Oxford Compassion Scales (SOCS) for Use with Young People
Name of Researcher: Jasmine Hubbard

My name is Jasmine Hubbard. I am a trainee clinical psychologist at Salomons Institute for Applied Psychology, Canterbury Christ Church University. I am supervised by Dr Tamara Leeuwerik (Senior Research Lecturer at Salomons) and Dr Clara Strauss (Consultant Clinical Psychologist and Research Lead for the Sussex Mindfulness Centre in Sussex Partnership NHS Foundation Trust).

I am inviting you to take part in an online research project about compassion. By compassion, we mean a feeling of sharing another's suffering, that leads to a desire to help. The research involves completing an online questionnaire that will take around 30 minutes. You will have the chance to win one of five, £20 shopping vouchers. Before choosing if you would like to take part, it is important that you read all the information. This is so you understand why the research is being done, and what it involves.

Part 1 explains the aim of the research and what will happen if you take part.
Part 2 gives more information about how the research will be conducted.

PART 1

What is the aim of the research?
The research will help us see if the compassion questions in the questionnaire are suitable for young people. This will help us develop a compassion questionnaire to use with young people in future research. This could help evaluate activities that aim to increase compassion in young people and improve wellbeing. The questionnaire will also help us better understand compassion in young people.

Why have I been invited to take part?
There is less research about compassion in young people, than compassion in adults. To take part, you need to be aged 11-17, live in the UK and be able to read English. We are inviting over 300 young people to take part.

What will happen if I take part?
The questionnaire will take place on a website called Qualtrics and will take around 30 minutes. The whole class will do the questionnaire at the same time during school hours. You will be asked sets of multiple-choice questions. These will be linked to compassion, mindfulness, wellbeing, mood and feelings, resilience, experiences of bullying, and learning. You will also be asked some questions about yourself, such as your age and gender. This will help us see the general characteristics of the young people that take part. You can stop at any time without giving a reason. You can skip questions if you do not want to answer them.

You will have the chance to win one of five, £20 shopping vouchers. You will be asked to give your e-mail address at the end of the questionnaire if you want to enter the prize draw. If you do not have an e-mail address, you can give your initials and tutor group. You do not have to enter the prize draw.

At the end of the questionnaire, you will also be asked if you would like to complete a shorter questionnaire in 2-3 weeks. You will be asked to give your e-mail address if you are happy to be contacted. Not all students will be asked to complete the shorter questionnaire because we need a smaller number of people for this. Those who take part in the shorter questionnaire will have a second chance to enter a prize draw to win one of two, £20 shopping vouchers. The shorter questionnaire will help us see if our compassion questions are reliable.

Further information about how your personal data will be stored (e.g., your e-mail address) is given in Part 2.

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Do I have to take part?
You do not have to take part. It is your choice. If you agree to take part, you will be asked to complete an assent form (consent form for young people under 16). You can stop taking part at any time. You do not have to give a reason. Your teacher will arrange a different activity for those who do not take part. There will be no negative consequences if you do not take part.

What are possible disadvantages and risks of taking part?
We do not expect that the questions will be upsetting for most people. However, there are some questions that ask about difficult thoughts and feelings, and experiences of bullying. These questions may be upsetting for people who have recently had difficult thoughts or feelings, or who have been bullied. If you think these questions would be upsetting for you, we recommend that you do not to take part. If you are not sure about taking part, or would like more information, please speak to your teacher or parent/guardian.

We will not be able to identify your answers, even if you tell us that you are having difficulties. However, if you choose to tell your teacher something that makes them think that you, or someone else, is at risk of serious harm, they might have to tell someone else about this. If this happened, they would talk to you and only share information to keep you safe.

What are the possible benefits of taking part?
The information from this questionnaire will help improve compassion research with young people. We hope this will help support activities to be offered in schools that aim to increase compassion to improve student wellbeing.

What if I have questions?
Your teacher or parent/guardian may be able to answer questions you have before the questionnaire. If they cannot, you can ask them to send me an email. There will be a chance to ask your teacher questions on the day. However, if you have questions that you do not want to ask in front of the class, you should speak to your teacher before the questionnaire. If you have questions during the questionnaire, you can ask your teacher.

What if there is a problem?
Any complaints about the way you have been dealt with during the questionnaire, or any negative effects it has on you will be addressed. More information is included in Part 2

Will my information be kept private?
Yes, we will keep your information private. You will not be asked for your name. Your answers will be made anonymous, so that no one can tell which answers are yours. We will not share what you tell us on the questionnaires with anyone, even if you tell us that you are having difficulties. More information is included in Part 2.

This is the end of Part 1. If you are thinking about taking part, please read the information in Part 2 before deciding.

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PART 2

What will happen if I do not want to continue with the questionnaire?
You can stop taking part at any time and do not have to give a reason. You can stop by closing the page on your screen. You do not have to let your teacher know. If you do not want to continue, please start the alternative activity provided by your teacher.

Unfinished questionnaires will not be included in the research. After you have submitted your answers by clicking **submit** at the end of the questionnaire, we will not be able to remove them from the research. This is because we will not be able to tell which answers are yours.

If you agree to us contacting you about taking part the shorter questionnaire in 2-3 weeks, you can change your mind and decide not to take part when this time comes.

What if there is a problem?
Please do not continue completing the questionnaire if you find the questions upsetting or distressing.
If you have worries after the questionnaire, you should speak to your teacher or parent/guardian. They have been given the details to get in contact with us. If you want to make a formal complaint, your teacher or parent/guardian can do this for you.

Will information about me be kept private?
Once everyone has completed the questionnaire, all answers will be downloaded from Qualtrics to a secure university file space. All answers will be deleted from Qualtrics at the end of the research. Information on Qualtrics' security can be found here: https://www.qualtrics.com/uk/platform/gdpr/

The answers you give will be kept securely and password protected. Your answers will be private and made anonymous, so that nobody can tell which answers are yours. Information given for the prize draw that could identify you (e-mail address/initials and tutor group) will be stored separately from the rest of your answers. This information will be deleted after the prize draw. For those who agree to complete a shorter questionnaire in 2-3 weeks, e-mail addresses will be deleted after completing the second questionnaire.

The data will be kept for 10 years. This is required by Canterbury Christ Church University for research projects. The University's research privacy notice can be found here: https://www.canterbury.ac.uk/university-solicitors-office/docs/research-privacy-notice.docx

Only those involved with the research project will have access to the data. They will have promised to keep the information private. School and student names will not be included when the research is written up.

What will happen to the results of the research?
This research is due to be finished by September 2023. The results will be submitted to a psychology journal to be published, for other psychologists and professions to see. School and student names will not be included.

Your school will be sent an overall summary of the results of the research. They can forward these on to you. No school or student names will be included. It will not be possible to tell who gave which answers.

Who is paying for this research?
Canterbury Christ Church University.

Who has checked this project?
The research has been checked and approved by The Salomons Ethics Panel, Salomons Institute for Applied Psychology, Canterbury Christ Church University. They help protect people that take part in research.

Thank you for taking the time to read this information.

Many thanks,
Jasmine Hubbard.

Appendix J

Parent/guardian information sheet

Canterbury Christ Church University

Salomons Institute for Applied Psychology
One Meadow Road, Tunbridge Wells, Kent TN1 2YG

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Parent/Guardian Information Sheet

Project Title: Validation of the Sussex-Oxford Compassion Scales (SOCS) for Use with Young People
Name of Researcher: Jasmine Hubbard

Dear Parent/Guardian

My name is Jasmine Hubbard, and I am a trainee clinical psychologist at Salomons Institute for Applied Psychology, Canterbury Christ Church University. I have an enhanced DBS certificate. I am working under the supervision of Dr Tamara Leeuwerik (Senior Research Lecturer at Salomons) and Dr Clara Strauss (Consultant Clinical Psychologist and Research Lead for the Sussex Mindfulness Centre in Sussex Partnership NHS Foundation Trust). I would like to invite your child to take part in research project about compassion, which involves completing an online questionnaire.

Before deciding if you would like your child to take part or not, it is important that you understand why the research is being done and what it would involve for your child. After reading this, if you are happy for your child to take part, you do not need to do anything. However, if you do not wish for your child to take part in the research, please [insert method of opting out when agreed with school] by [insert date once agreed with school].

Part 1 explains the purpose of the research and what will happen if your child takes part.
Part 2 gives more detailed information about the conduct of the research.

PART 1

What is the aim of the research?
The research aims to validate a measure of self-compassion, and compassion for others, for use with young people. This could enable robust research to be conducted in the future, that helps advance compassion research with young people. For example, evaluating the outcome of compassion-based interventions that aim to teach young people skills to support their wellbeing. The research will also increase our understanding of compassion in young people, and how compassion is related to psychological and social wellbeing.

Why has my child been invited to take part?
Compassion research with young people is more limited than research with adults due to the lack of validated compassion measures for young people. We are looking for young people aged 11-17 that live in the UK, and who can read English, to participate. Over 300 young people will be invited to take part.

Does my child have to take part?
It is up to you to decide whether you would be happy for your child to take part. If you decide you would not be happy for your child to take part, please [insert method of opting out when agreed with school] by [insert date once agreed with school]. You are free to decline for your child to take part without giving a reason. If you do not return your consent form, we will assume that you are happy for your child to take part. Your child's teacher will arrange a different activity for those who do not take part.

If you agree for your child to take part, they will be asked to provide their assent (consent for young people under 16) online on Qualtrics at the beginning the questionnaire. They can choose to not take part. There will be no negative consequences for those who do not take part.

What will happen if my child takes part?
The questionnaire will take place on a website called Qualtrics and will take around 30 minutes. The whole class will do the questionnaire at the same time during school hours. Your child will be asked sets of multiple-choice questions. These will be linked to compassion, mindfulness, wellbeing, mood and feelings, resilience, experiences of bullying, and learning. They will also be asked some questions about themselves (e.g., age, gender, ethnicity etc.). This information will help us know whether the young people who have taken part in

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the research are representative of the population. They can stop taking part at any time.

Your child will have the chance to win one of five, £20 shopping vouchers. If they choose to enter the prize draw, they will be asked to give their e-mail address at the end of the questionnaire, or initials and tutor group if they do not have an e-mail address. They do not have to enter the prize draw or give their e-mail address, initials, or tutor group.

At the end of the questionnaire, students will be asked if they would like to complete a shorter questionnaire in 2-3 weeks. They will be asked to provide their e-mail if they are happy to be contacted. Not all students will be offered this opportunity, as we only need a smaller number of people to complete the shorter questionnaire. Those who take part in the shorter questionnaire will have a second chance to enter a prize draw, to win one of two £20 shopping vouchers. The shorter questionnaire will help us see if our compassion questions are reliable.

Further information about how your child's personal data will be stored (e.g., their e-mail address) is given in Part 2.

What are possible disadvantages and risks of taking part?
We do not expect that answering the questions will be upsetting for most people. However, there are some questions that ask about difficult thoughts and feelings, and experiences of bullying. These questions may be upsetting for young people who have recently had difficult thoughts or feelings, or who have been bullied. If you think these questions would be upsetting for your child, we advise that they do not take part. Your child will also be encouraged to speak to parents/guardians and teachers if they have any concerns.

We will not be able to identify your child's answers, even if their answers suggest they are having difficulties. However, if they choose to tell their teacher something that leads them to believe that they, or someone else, is at risk of serious harm, their teacher might have to tell someone else about this. If this happened, they would talk to your child, and would only share information about them to keep them safe.

What are the possible benefits of taking part?
The research will help advance compassion research with young people, which will help support compassion-based interventions and approaches being offered in schools to improve student wellbeing.

What if there is a problem?
Any complaint about the way that you or your child have been dealt with during the research, or any possible harm your child might suffer will be addressed. Further information is given in Part 2.

What if you or your child has questions?
Before the research takes place, if you or your child have questions, you can ask their teacher or send me an email. There will be opportunities for your child to ask their teacher questions on the day before the questionnaire. However, if any students have questions that they would rather have addressed individually rather than in front of the class, they should speak to their teacher in advance. If your child has any questions during the questionnaire, they can ask their teacher [school specific information to be added].

Will information about my child be kept confidential?
Yes. We will follow ethical and legal practice and all information about your child will be handled in confidence. Your child will not be asked for their name, and their answers will be made anonymous, so that no one can tell which answers are theirs. Your child's answers will not be shared with school or families, to maintain confidentiality. Further information is given in Part 2.

This is the end of part 1. If the information in Part 1 has interested you, and you are considering consenting to your child participating, please read the additional information in Part 2 before deciding.

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PART 2

What will happen if my child does not want to carry on with the questionnaire?
During the questionnaire, your child can withdraw at any time without giving a reason. They can withdraw by closing the webpage. Students do not have to let their teacher know. They can start the alternative activity provided by their teacher.

Any incomplete questionnaires will not be included in the research. Withdrawal from the research is possible up until students submit their answers. After your child has submitted their answers, we will not be able to withdraw their answers as we will not be able to identify them. Those who agree to complete a shorter questionnaire in 2-3 weeks can change their mind. They can decide not to take part in the shorter questionnaire when the time comes.

What if there is a problem?
If your child has any concerns, they will be encouraged to speak to you, or their teacher. You can also personally get in touch with us and make a formal complaint if you or your child have concerns.

Complaints
If you wish to contact me about the research, please email me on j.hubbard1240@canterbury.ac.uk and I will do my best to address your concerns. You can also contact me by leaving a message on the 24-hour voicemail phone number 01227 927070. Please leave a contact number and say that the message is for Jasmine Hubbard, and I will get back to you as soon as possible. If you remain dissatisfied and wish to complain formally, you can do this by contacting Dr Fergal Jones, Clinical Psychology Programme Research Director, Salomons Institute for Applied Psychology– fergal.jones@canterbury.ac.uk

Will information about my child be kept confidential?
Once all students have completed the questionnaire, all students' answers will be downloaded from Qualtrics to a secure university file space. All students' answers will be deleted from Qualtrics at the end of the research. Information on Qualtrics' security can be found here: https://www.qualtrics.com/uk/platform/gdpr/

The answers your child gives will be kept securely, in a password protected data file on a secure university file space. Your child's data will be confidential and will be made anonymous, so that nobody can tell which answers are your child's. Information given for the prize draw that could identify your child (e-mail address/initials and tutor group) will be stored separately from the rest of the data and deleted after the prize draw. For those who agree to complete a shorter questionnaire in 2-3 weeks, email addresses will be deleted after completing the second questionnaire.

The data will be kept for 10 years as is required by Canterbury Christ Church University for research project**s.** The University's research privacy notice can be found here: https://www.canterbury.ac.uk/university-solicitors-office/docs/research-privacy-notice.docx Only those authorised to look at data (the researcher and supervisors) will have access to the data. School and student names will not be included when the research is written up.

What will happen to the results of the research?
This research is due to be completed by September 2023. The results will be submitted to a psychology journal to be published, for other psychologists and professions to see. School names and student names will not be included in this publication. Your child's school will be sent an overall summary of the results of the research which they can forward on to you. No school or student names will be included, and it will not be possible to tell who gave which answers.

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Who is organising and funding the research?
Canterbury Christ Church University.

Who has reviewed the research?
This research project has been reviewed and given favourable opinion by The Salomons Ethics Panel, Salomons Institute for Applied Psychology, Canterbury Christ Church University. They help protect people that take part in research.

If you would like to speak to me and find out more about the research, or have questions about it answered, you can e-mail me on j.hubbard1240@canterbury.ac.uk and I will reply as soon as I can.

Thank you for taking the time to read this information.

Opt-out Consent Form [process to be agreed with school]

*Please complete this form and return to [insert teacher]) if you **do not consent** for your child to take part in the research on compassion being conducted at school.*

I do not give permission for my child to participate in the research project.

Child's name:

Date of birth:

Tutor group:

Name of parent/guardian:

Appendix K

Opt-out consent form for parents/guardians

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Please complete this form and return to [redacted] *if you* ***do not consent*** *for your child to take part in the research on compassion being conducted at school.*

I **do not** give permission for my child to participate in the compassion research project.

Name of child:

Date of birth:

Tutor group:

Name of parent/guardian:

Appendix L

Participant assent form

Canterbury Christ Church University

Assent Form

Before continuing, please make sure you have read all of the information sheet or watched the video provided.

If you are happy to continue with the questionnaire, please read the following statements.

Please click in each box under 'I agree' to show you agree with the statement.

	I agree
I have read and understand the information sheet.	○
I have had the opportunity to think about the information, ask questions, and have had these answered.	○
I understand that I have chosen to take part in this questionnaire, but I do not have to take part if I do not want to.	○
I understand I can stop taking part at any time today without giving any reason.	○
I understand that the answers I give will be made anonymous so that nobody will be able to tell which answers I gave.	○
I agree that my anonymous data can be used in published reports of the research.	○
I agree to take part in the questionnaire.	○

If you agree with **all** the above statements, and are happy to take part in this questionnaire, please click next to continue.

If you do not agree to take part in this questionnaire, please close this page. Please quietly start the other activity provided by your teacher.

Appendix M

Participant debrief sheet

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PARTICIPANT DEBRIEF SHEET

Thank you for taking part in this research about compassion. Remember, there were no right or wrong answers. We were interested in your honest answers. This will help improve compassion research and help us understand how compassion is related to wellbeing in young people.

You may know other students in the school who will also complete the questionnaire. We kindly ask you to wait until after they have done the questionnaire to talk about it. This is to make sure that their answers are not changed by talking to others. Thank you.

If you have more questions about the questionnaire, please speak to your teacher, or parent/guardian. You should also let them know if you have any worries or feel upset after the questionnaire. They have the details to contact us. They can pass on feedback to us.

Some questions may have drawn your attention to difficulties you may be experiencing. It can be helpful to talk to people you trust about these experiences. Many people your age find it helpful to talk about these thoughts, feelings and experiences with friends, family, or a trusted teacher at school.

Some young people prefer to talk to people outside of their current support network, and outside of school. It might be helpful to talk to your GP (doctor) who can offer information, advice, and support. They can also refer you to other support services if needed.

There are many local services that provide wellbeing support for young people. It may be helpful for you to access these. There are also many helplines you can contact for support.

Local Services [insert details of local services dependent on school location]

Emergency or Crisis Support

If you or someone you know is at risk of harm, there are services that can support you. For example, if you were having thoughts about hurting yourself. It may feel hard to reach out, but you are not alone. The services below are free and confidential.

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Appendix N

Parent/guardian debrief sheet

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PARENT/GUARDIAN DEBRIEF SHEET

The questionnaire may have drawn your child's attention to difficulties they may be experiencing. It can be helpful for your child to talk to people they trust about these experiences. Many young people find it helpful to talk about these thoughts, feelings and experiences with friends, family, or a trusted teacher at school. However, some young people prefer to talk to people outside of their current support network, and outside of school. If this is the case for your child, it may be helpful for them to talk to their GP who can offer information, advice, and support, and refer to a range of other services to support you if needed. There are many local services that provide a range of wellbeing support for young people which may be helpful for your child to access. There are also several helplines that you and your child can contact for support.

Local Services [insert details of local services dependent on school location]

Emergency or Crisis Support

If you think that your child may be at risk of harm, there are services that can support them. For example, if they were having thoughts about hurting themselves. The services below are free and confidential.

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- **Shout** is a free, anonymous 24/7 text support service. If your child is struggling to cope and needs to talk, they can text the word 'SHOUT' to **85258**, to start a conversation.
- **Samaritans** provide 24/7 support and someone to talk to. They are a listening service. Call **116 123**.
- **Childline** is a 24/7 service for young people to talk about any problems. Call **0800 1111.**
- **Sussex Mental Healthline** offer crisis care 24/7 to people living in Sussex. Call **0800 0309 500**.
- **Papyrus** offer advice and support from 9am - midnight, for young people having thoughts about ending their life. Call **08000684141** or text **07860039967**.
- Call **NHS 111** if you urgently need help or advice, but it is not a life-threatening situation.
- For emergency situations always call **999** or visit your local **A&E.**

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General Information and Advice on Emotional Health and Wellbeing

There are many websites providing information and resources for parents/ guardians that you may wish to look at. Here are some that we would recommend:

- Young Minds https://youngminds.org.uk/find-help/for-parents/
- Mind https://www.mind.org.uk/information-support/for-children-and-young-people/information-for-parents/
- NSPCC https://www.nspcc.org.uk/keeping-children-safe/support-for-parents/
- Samaritans https://www.samaritans.org/how-we-can-help/schools/parents-and-carers/
- Bullying UK https://www.bullying.co.uk/advice-for-parents/
- Papyrus https://www.papyrus-uk.org/papyrus-launch-new-guide-for-parents/
- CAMHS resources https://www.camhs-resources.co.uk/
- Beat https://www.beateatingdisorders.org.uk/

Please let me know if you have any further questions about the research. Please also let me know if you have any concerns or if your child is upset following participating, and you would like to provide feedback. If you would like to contact me about the research, please email me on j.hubbard1240@canterbury.ac.uk and I will do my best to address your concerns. If you remain dissatisfied and wish to complain formally, you can do this by contacting Dr Fergal Jones, Clinical Psychology Programme Research Director, Salomons Institute for Applied Psychology- fergal.jones@canterbury.ac.uk

Many thanks,
Jasmine Hubbard.
Trainee Clinical Psychologist.

Appendix O

Qualtrics survey (Time 1)

The questionnaire will start on the next page.

Please do not spend too much time on any one question. We are interested in the pattern of your answers.

Some of the questions may seem repetitive. This is part of the questionnaire.

There are no right or wrong answers. We are interested in your honest answers.

Please try and respond to all statements. If a statement does not quite fit your experience, please choose the closest one.

You can skip questions if you do not want to answer them.

Your answers will only be included if you click **submit** at the end of the questionnaire. You can decide to stop taking part at any time before clicking submit.

This is not a test. You can take as much time as you need.

However, we do want you to answer the questions on your own. Please focus on your own questionnaire quietly.

Please click next to start the questionnaire.

Canterbury Christ Church University

The following questions will help will help us see the general characteristics of the young people that take part.

What is your age? (years)

- ◯ 11
- ◯ 12
- ◯ 13
- ◯ 14
- ◯ 15
- ◯ 16
- ◯ 17

What year group are you in at school?

- ◯ Year 7
- ◯ Year 8
- ◯ Year 9
- ◯ Year 10
- ◯ Year 11
- ◯ Year 12
- ◯ Year 13

How would you describe your gender?

- ◯ Female
- ◯ Male
- ◯ Non-binary
- ◯ Other
- ◯ Prefer not to say

How would you describe your ethnicity?

- ◯ English, Welsh, Scottish, Northern Irish or British
- ◯ Irish
- ◯ Gypsy or Irish Traveller
- ◯ Any other White background
- ◯ White and Black Caribbean
- ◯ White and Black African
- ◯ White and Asian
- ◯ Any other Mixed or Multiple ethnic background
- ◯ Indian
- ◯ Pakistani
- ◯ Bangladeshi
- ◯ Chinese
- ◯ Any other Asian background
- ◯ African
- ◯ Caribbean
- ◯ Any other Black, African or Caribbean background
- ◯ Arab
- ◯ Any other ethnic group
- ◯ Prefer not to say

Do you receive free school meals?

- ◯ Yes
- ◯ No
- ◯ Not sure
- ◯ Prefer not to say

Sussex-Oxford Compassion for Others Scale (SOCS-O)

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Sussex-Oxford Compassion for the Self Scale (SOCS-S)

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Self-Compassion Scale–Youth (SCS-Y)

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Child and Adolescent Mindfulness Measure (CAMM)

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Warwick–Edinburgh Mental Wellbeing Scale (WEMWBS)

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Short Mood and Feelings Questionnaire (SMFQ)

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Brief Resilience Scale (BRS)

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Multidimensional Peer-Victimization Scale (MPVS)

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Patterns of Adaptive Learning Survey (PALS) (mastery goals, performance-approach goals, and performance-avoidance goals subscales)

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Would you like to be entered into the prize draw to win one of five, £20 shopping vouchers? (You must provide an e-mail address, or your initials and tutor group)

You do not have to enter the prize draw or provide this information.

- ◯ Yes
- ◯ No

Would you like the chance to be entered into a second prize draw to win one of two £20 shopping vouchers by completing a shorter questionnaire in 2 or 3 weeks? (You must provide an e-mail address)

- ◯ Yes
- ◯ No

To submit your answers, please select '**I would like to submit my answers**'.

If you do not want to submit your answers, please select '**I do not want to submit my answers**'.

Then, click '**submit**' in the right hand corner.

- ◯ I would like to submit my answers
- ◯ I do not want to submit my answers

0% 100%

Back Submit

Thank you for taking part.

Your response has been recorded.

Your answers will only be included in the research if you selected 'I would like to submit my answers'.

Please continue to the next page for the participant debrief sheet.

Back Next

Appendix P

Qualtrics survey (Time 2)

Thank you for agreeing to take part in a second shorter questionnaire about compassion. It will take around 10 minutes.

This shorter questionnaire will help us see if our compassion questions are reliable.

Not all students will have been invited to complete the shorter questionnaire. This is because we need a smaller number of students for this.

You will have the chance to enter a second prize draw to win one of two, £20 shopping vouchers.

You must give the e-mail address you used in the first questionnaire to take part. This is so we can see how reliable our questions are.

If you have changed your mind about completing the questionnaire, please close this page.

PARTICIPANT INFORMATION SHEET

The information you were given for the first questionnaire is the same for this shorter questionnaire.

Here is a reminder of key points:

- You can stop taking part at any time without giving a reason.
- After you have submitted your answers by clicking **submit** at the end of the questionnaire, we will not be able to remove them from the research. This is because we will not be able to tell which answers are yours.
- The answers you give will be kept securely and password protected.
- Your answers will be private and made anonymous, so that nobody can tell which answers are yours.
- Information that could identify you such as your e-mail address will be deleted after the prize draw.

We do not expect that the questions will be upsetting for most people. Please do not continue completing the questionnaire if you find the questions upsetting or distressing. If you have any worries or feel upset after the questionnaire when at school, please speak to, or e-mail your [redacted] They have the details to contact us and can pass on your feedback. Your [redacted] can also support you in school. You can also speak to your **parent/guardian**, who have the details to get in contact with us. If you want to make a formal complaint, your teacher or parent/guardian can do this for you.

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Assent Form

Before continuing, please make sure you have read all of the information sheet or watched the video provided.

If you are happy to continue with the questionnaire, please read the following statements.

Please click in each box under 'I agree' to show you agree with the statement.

	I agree
I have read and understand the information sheet.	○
I have had the opportunity to think about the information, ask questions, and have had these answered.	○
I understand that I have chosen to take part in this questionnaire, but I do not have to take part if I do not want to.	○
I understand I can stop taking part at any time today without giving any reason.	○
I understand that the answers I give will be made anonymous so that nobody will be able to tell which answers I gave.	○
I agree that my anonymous data can be used in published reports of the research.	○
I agree to take part in the questionnaire.	○

If you agree with **all** the above statements, and are happy to take part in this questionnaire, please click next to continue.

If you do not agree to take part in this questionnaire, please close this page. Please quietly start the other activity provided by your teacher.

Please give the e-mail address that you used for the first questionnaire (the one we sent the second questionnaire link to).

This is so we can see how reliable our questions are.

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The questionnaire will start on the next page.

Please do not spend too much time on any one question. We are interested in the pattern of your answers.

Some of the questions may seem repetitive. This is part of the questionnaire.

There are no right or wrong answers. We are interested in your honest answers.

Please try and respond to all statements. If a statement does not quite fit your experience, please choose the closest one.

You can skip questions if you do not want to answer them.

Your answers will only be included if you click **submit** at the end of the questionnaire. You can decide to stop taking part at any time before clicking submit.

This is not a test. You can take as much time as you need.

However, we do want you to answer the questions on your own. Please focus on your own questionnaire quietly.

Please click next to start the questionnaire.

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The following questions will help will help us see the general characteristics of the young people that take part.

What is your age? (years)

- ◯ 11
- ◯ 12
- ◯ 13
- ◯ 14
- ◯ 15
- ◯ 16
- ◯ 17

What year group are you in at school?

- ◯ Year 7
- ◯ Year 8
- ◯ Year 9
- ◯ Year 10
- ◯ Year 11
- ◯ Year 12
- ◯ Year 13

How would you describe your gender?

- ◯ Female
- ◯ Male
- ◯ Non-binary
- ◯ Other
- ◯ Prefer not to say

How would you describe your ethnicity?

- ◯ English, Welsh, Scottish, Northern Irish or British
- ◯ Irish
- ◯ Gypsy or Irish Traveller
- ◯ Any other White background
- ◯ White and Black Caribbean
- ◯ White and Black African
- ◯ White and Asian
- ◯ Any other Mixed or Multiple ethnic background
- ◯ Indian
- ◯ Pakistani
- ◯ Bangladeshi
- ◯ Chinese
- ◯ Any other Asian background
- ◯ African
- ◯ Caribbean
- ◯ Any other Black, African or Caribbean background
- ◯ Arab
- ◯ Any other ethnic group
- ◯ Prefer not to say

Do you receive free school meals?

- ◯ Yes
- ◯ No
- ◯ Not sure
- ◯ Prefer not to say

Sussex-Oxford Compassion for Others Scale (SOCS-O)

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Sussex-Oxford Compassion for the Self Scale (SOCS-S)

This has been removed from the electronic copy

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Would you like to be entered into the second prize draw to win one of two, £20 shopping vouchers? (You must provide an e-mail address, or your initials and tutor group)

You do not have to enter the prize draw or provide this information.

- ◯ Yes
- ◯ No

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To submit your answers, please select '**I would like to submit my answers**'.

If you do not want to submit your answers, please select '**I do not want to submit my answers**'

Then click '**submit**' in the right hand corner.

- ◯ I would like to submit my answers
- ◯ I do not want to submit my answers

0% 100%

Back Submit

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Thank you for taking part in this questionnaire.

Your response has been recorded.

Your answers will only be included in the research if you selected 'I would like to submit my answers'.

Please continue to the next page for the participant debrief sheet.

0% 100%

Back Next

Appendix Q

Standardised item loadings for the SOCS-O five-factor model for total sample, 11–13-year-olds and 14–16-year-olds

	Total sample	11-13 years	14-16 years
Recognising suffering			
I recognise when other people are feeling distressed without them having to tell me.	0.76 (0.03)*	0.72 (0.05)*	0.80 (0.04)*
I notice when others are feeling distressed.	0.83 (0.03)*	0.82 (0.03)*	0.84 (0.04)*
I'm quick to notice early signs of distress in others.	0.71 (0.04)*	0.72 (0.07)*	0.71 (0.05)*
I recognise signs of suffering in others.	0.77 (0.03)*	0.81 (0.05)*	0.74 (0.04)*
Understanding the universality of suffering			
I understand that everyone experiences suffering at some point in their lives.	0.68 (0.05)*	0.70 (0.07)*	0.69 (0.07)*
I understand that feeling upset at times is part of human nature.	0.62 (0.05)*	0.67 (0.07)*	0.57 (0.08)*
Like me, I know that other people also experience struggles in life.	0.70 (0.05)*	0.83 (0.04)*	0.62 (0.07)*
I know that we can all feel upset at times when we are wronged.	0.66 (0.04)*	0.65 (0.07)*	0.65 (0.05)*
Feeling for the person suffering			
When someone is going through a difficult time, I feel kindly towards them.	0.69 (0.04)*	0.65 (0.06)*	0.71 (0.04)*
When I hear about bad things happening to other people, I feel concern for their wellbeing.	0.69 (0.03)*	0.69 (0.05)*	0.70 (0.04)*
When someone is upset, I try to tune in to how they're feeling.	0.73 (0.03)*	0.74 (0.04)*	0.72 (0.04)*
I'm sensitive to other people's distress.	0.61 (0.04)*	0.60 (0.06)*	0.61 (0.05)*
Tolerating uncomfortable feelings			
When someone else is upset, I try to stay open to their feelings rather than avoid them.	0.71 (0.03)*	0.74 (0.04)*	0.69 (0.04)*
I stay with and listen to other people when they're upset even if it's hard to bear.	0.68 (0.03)*	0.73 (0.04)*	0.65 (0.05)*
I connect with the suffering of others without judging them.	0.65 (0.03)*	0.66 (0.05)*	0.65 (0.04)*
When someone else is upset, I can be there for them without feeling overwhelmed by their distress.	0.50 (0.04)*	0.50 (0.07)*	0.51 (0.06)*
Acting or being motivated to act to alleviate suffering			
When others are struggling, I try to do things that would be helpful.	0.73 (0.03)*	0.78 (0.03)*	0.70 (0.04)*
When someone is going through a difficult time, I try to look after them.	0.79 (0.02)*	0.82 (0.03)*	0.75 (0.03)*
When I see someone in need, I try to do what's best for them.	0.79 (0.02)*	0.83 (0.03)*	0.76 (0.03)*
When I see that someone is upset, I do my best to take care of them.	0.82 (0.02)*	0.85 (0.03)*	0.80 (0.03)*

Standard errors are given in parentheses. * $p < .001$.

Appendix R

Standardised item loadings for the SOCS-S five-factor model for total sample, 11–13-year-olds, and 14–16-year-olds

	Total sample	11-13 years	14-16 years
Recognising suffering			
I'm good at recognising when I'm feeling distressed.	0.73 (0.04)*	0.73 (0.06)*	0.72 (0.06)*
I notice when I'm feeling distressed.	0.84 (0.02)*	0.87 (0.03)*	0.81 (0.03)*
I'm quick to notice early signs of distress in myself.	0.74 (0.03)*	0.71 (0.04)*	0.77 (0.04)*
I recognise signs of suffering in myself.	0.81 (0.03)*	0.81 (0.04)*	0.81 (0.04)*
Understanding the universality of suffering			
I understand that everyone experiences suffering at some point in their lives.	0.73 (0.04)*	0.75 (0.06)*	0.72 (0.06)*
I understand that feeling upset at times is part of human nature.	0.71 (0.04)*	0.71 (0.07)*	0.71 (0.05)*
Like me, I know that other people also experience struggles in life.	0.77 (0.03)*	0.74 (0.05)*	0.78 (0.04)*
I know that we can all feel distressed when things don't go well in our lives.	0.82 (0.03)*	0.79 (0.06)*	0.84 (0.04)*
Feeling for the person suffering			
When I'm going through a difficult time, I feel kindly towards myself.	0.78 (0.02)*	0.73 (0.05)*	0.81 (0.03)*
When bad things happen to me, I feel caring towards myself.	0.85 (0.02)*	0.82 (0.04)*	0.86 (0.02)*
When I'm upset, I try to tune in to how I'm feeling.	0.76 (0.03)*	0.81 (0.04)*	0.72 (0.03)*
Even when I'm disappointed with myself, I can feel warmly towards myself when I'm in distress.	0.81 (0.02)*	0.85 (0.03)*	0.78 (0.03)*
Tolerating uncomfortable feelings			
When I'm upset, I try to stay open to my feelings rather than avoid them.	0.77 (0.02)*	0.71 (0.04)*	0.80 (0.03)*
I connect with my own distress without letting it overwhelm me.	0.82 (0.02)*	0.83 (0.03)*	0.81 (0.03)*
I connect with my own suffering without judging myself.	0.81 (0.02)*	0.83 (0.03)*	0.80 (0.03)*
When I'm upset, I can let the emotions be there without feeling overwhelmed.	0.68 (0.04)*	0.62 (0.06)*	0.71 (0.04)*
Acting or being motivated to act to alleviate suffering			
I try to make myself feel better when I'm distressed, even if I can't do anything about the cause.	0.77 (0.02)*	0.74 (0.04)*	0.79 (0.03)*
When I'm going through a difficult time, I try to look after myself.	0.86 (0.02)*	0.83 (0.04)*	0.88 (0.02)*
When I'm upset, I try to do what's best for myself.	0.85 (0.02)*	0.84 (0.04)*	0.85 (0.02)*
When I'm upset, I do my best to take care of myself.	0.87 (0.02)*	0.87 (0.04)*	0.87 (0.02)*

Standard errors are given in parentheses. * $p < .001$.

Appendix S

Standardised item loadings for the SOCS-O five-factor hierarchical model for total sample, 11–13-year-olds, and 14–16-year-olds

	Total sample	11-13 years	14-16 years
Recognising suffering			
I recognise when other people are feeling distressed without them having to tell me.	0.76 (0.03)*	0.72 (0.05)*	0.80 (0.04)*
I notice when others are feeling distressed.	0.83 (0.03)*	0.81 (0.03)*	0.84 (0.03)*
I'm quick to notice early signs of distress in others.	0.72 (0.04)*	0.73 (0.06)*	0.71 (0.05)*
I recognise signs of suffering in others.	0.77 (0.03)*	0.80 (0.05)*	0.75 (0.04)*
Understanding the universality of suffering			
I understand that everyone experiences suffering at some point in their lives.	0.69 (0.05)*	0.71 (0.07)*	0.69 (0.06)*
I understand that feeling upset at times is part of human nature.	0.62 (0.05)*	0.66 (0.07)*	0.57 (0.08)*
Like me, I know that other people also experience struggles in life.	0.70 (0.05)*	0.82 (0.04)*	0.62 (0.07)*
I know that we can all feel upset at times when we are wronged.	0.66 (0.04)*	0.66 (0.07)*	0.64 (0.05)*
Feeling for the person suffering			
When someone is going through a difficult time, I feel kindly towards them.	0.69 (0.04)*	0.65 (0.06)*	0.71 (0.04)*
When I hear about bad things happening to other people, I feel concern for their wellbeing.	0.69 (0.03)*	0.67 (0.05)*	0.70 (0.04)*
When someone is upset, I try to tune in to how they're feeling.	0.73 (0.03)*	0.75 (0.04)*	0.72 (0.04)*
I'm sensitive to other people's distress.	0.60 (0.04)*	0.60 (0.06)*	0.61 (0.05)*
Tolerating uncomfortable feelings			
When someone else is upset, I try to stay open to their feelings rather than avoid them.	0.71 (0.03)*	0.73 (0.04)*	0.70 (0.04)*
I stay with and listen to other people when they're upset even if it's hard to bear.	0.68 (0.03)*	0.73 (0.04)*	0.64 (0.05)*
I connect with the suffering of others without judging them.	0.65 (0.03)*	0.66 (0.05)*	0.65 (0.04)*
When someone else is upset, I can be there for them without feeling overwhelmed by their distress.	0.51 (0.04)*	0.50 (0.07)*	0.51 (0.05)*
Acting or being motivated to act to alleviate suffering			
When others are struggling, I try to do things that would be helpful.	0.73 (0.03)*	0.78 (0.03)*	0.70 (0.04)*
When someone is going through a difficult time, I try to look after them.	0.78 (0.02)*	0.82 (0.03)*	0.75 (0.03)*
When I see someone in need, I try to do what's best for them.	0.79 (0.02)*	0.83 (0.03)*	0.76 (0.03)*
When I see that someone is upset, I do my best to take care of them.	0.82 (0.02)*	0.85 (0.03)*	0.81 (0.03)*

Standard errors are given in parentheses. * $p < .001$.

Appendix T

Standardised item loadings for the SOCS-S five-factor hierarchical model for total sample, 11–13-year-olds, and 14–16-year-olds

	Total sample	11-13 years	14-16 years
Recognising suffering			
I'm good at recognising when I'm feeling distressed.	0.73 (0.04)*	0.73 (0.06)*	0.73 (0.05)*
I notice when I'm feeling distressed.	0.83 (0.02)*	0.86 (0.03)*	0.80 (0.03)*
I'm quick to notice early signs of distress in myself.	0.75 (0.03)*	0.73 (0.04)*	0.78 (0.04)*
I recognise signs of suffering in myself.	0.81 (0.03)*	0.81 (0.04)*	0.80 (0.04)*
Understanding the universality of suffering			
I understand that everyone experiences suffering at some point in their lives.	0.74 (0.04)*	0.76 (0.06)*	0.72 (0.06)*
I understand that feeling upset at times is part of human nature.	0.71 (0.04)*	0.72 (0.07)*	0.71 (0.06)*
Like me, I know that other people also experience struggles in life.	0.76 (0.03)*	0.74 (0.06)*	0.78 (0.04)*
I know that we can all feel distressed when things don't go well in our lives.	0.82 (0.03)*	0.78 (0.06)*	0.85 (0.04)*
Feeling for the person suffering			
When I'm going through a difficult time, I feel kindly towards myself.	0.78 (0.03)*	0.73 (0.05)*	0.80 (0.03)*
When bad things happen to me, I feel caring towards myself.	0.84 (0.02)*	0.82 (0.03)*	0.86 (0.02)*
When I'm upset, I try to tune in to how I'm feeling.	0.77 (0.03)*	0.82 (0.04)*	0.73 (0.03)*
Even when I'm disappointed with myself, I can feel warmly towards myself when I'm in distress.	0.81 (0.02)*	0.84 (0.02)*	0.78 (0.03)*
Tolerating uncomfortable feelings			
When I'm upset, I try to stay open to my feelings rather than avoid them.	0.76 (0.02)*	0.71 (0.04)*	0.80 (0.03)*
I connect with my own distress without letting it overwhelm me.	0.82 (0.02)*	0.83 (0.03)*	0.81 (0.03)*
I connect with my own suffering without judging myself.	0.81 (0.02)*	0.83 (0.03)*	0.80 (0.03)*
When I'm upset, I can let the emotions be there without feeling overwhelmed.	0.68 (0.04)*	0.62 (0.06)*	0.71 (0.04)*
Acting or being motivated to act to alleviate suffering			
I try to make myself feel better when I'm distressed, even if I can't do anything about the cause.	0.77 (0.02)*	0.74 (0.04)*	0.79 (0.03)*
When I'm going through a difficult time, I try to look after myself.	0.86 (0.02)*	0.83 (0.04)*	0.88 (0.02)*
When I'm upset, I try to do what's best for myself.	0.85 (0.02)*	0.84 (0.04)*	0.85 (0.02)*
When I'm upset, I do my best to take care of myself.	0.87 (0.02)*	0.87 (0.04)*	0.87 (0.02)*

Standard errors are given in parentheses. * $p < .001$.

Appendix U

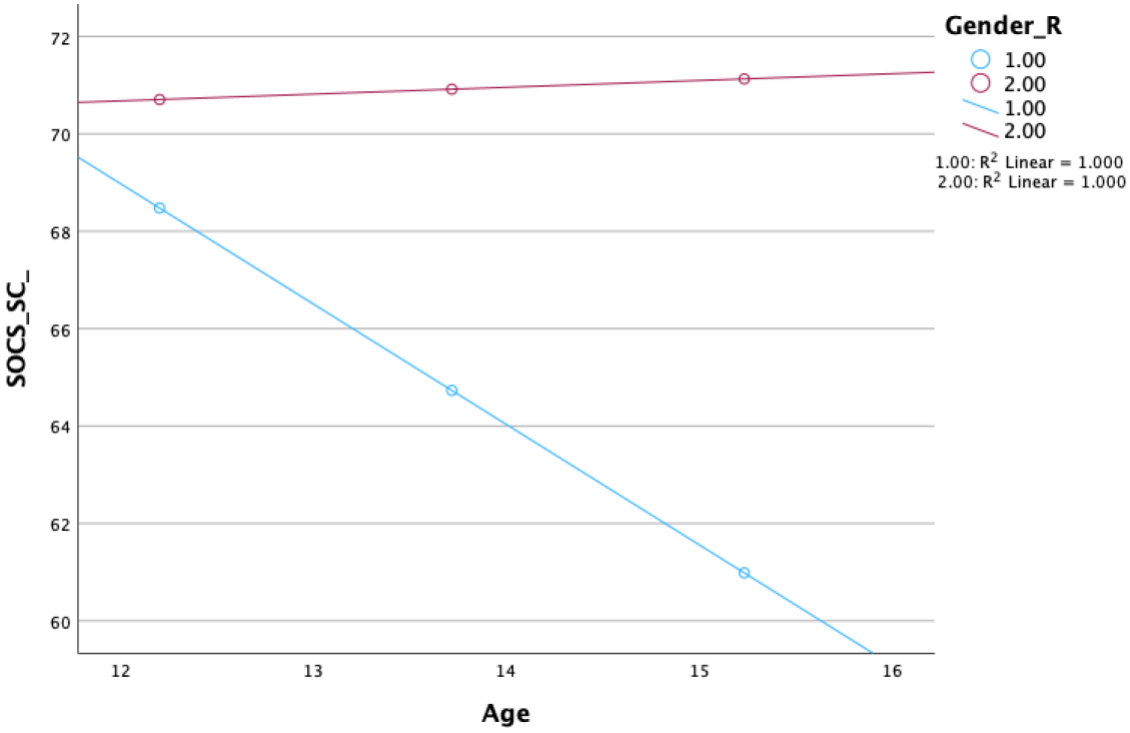
Standardised loadings of factors to an overall compassion factor for the five-factor hierarchical model for the total sample, 11–13-year-olds, and 14–16-year-olds for the SOCS-O and SOCS-S

	SOCS-O			SOCS-S		
	Total sample	11-13 years	14-16 years	Total sample	11-13 years	14-16 years
Recognising suffering	0.65 (0.04)*	0.66 (0.07)*	0.64 (0.05)*	0.58 (0.04)*	0.58 (0.06)*	0.58 (0.05)*
Understanding the universality of suffering	0.62 (0.06)*	0.47 (0.09)*	0.73 (0.05)*	0.33 (0.05)*	0.36 (0.08)*	0.30 (0.06)*
Feeling for the person suffering	0.96 (0.02)*	0.95 (0.03)*	0.97 (0.02)*	1.00 (0.01)*	1.01 (0.01)*	1.01 (0.01)*
Tolerating uncomfortable feelings	1.03 (0.02)*	1.05 (0.03)*	1.01 (0.03)*	0.98 (0.01)*	0.98 (0.02)*	0.98 (0.14)*
Acting or being motivated to act to alleviate suffering	0.95 (0.02*	0.95 (0.02)*	0.95 (0.03)*	0.97 (0.01)*	0.96 (0.02)*	0.96 (0.01)*

Standard errors are given in parentheses. * $p < .001$.

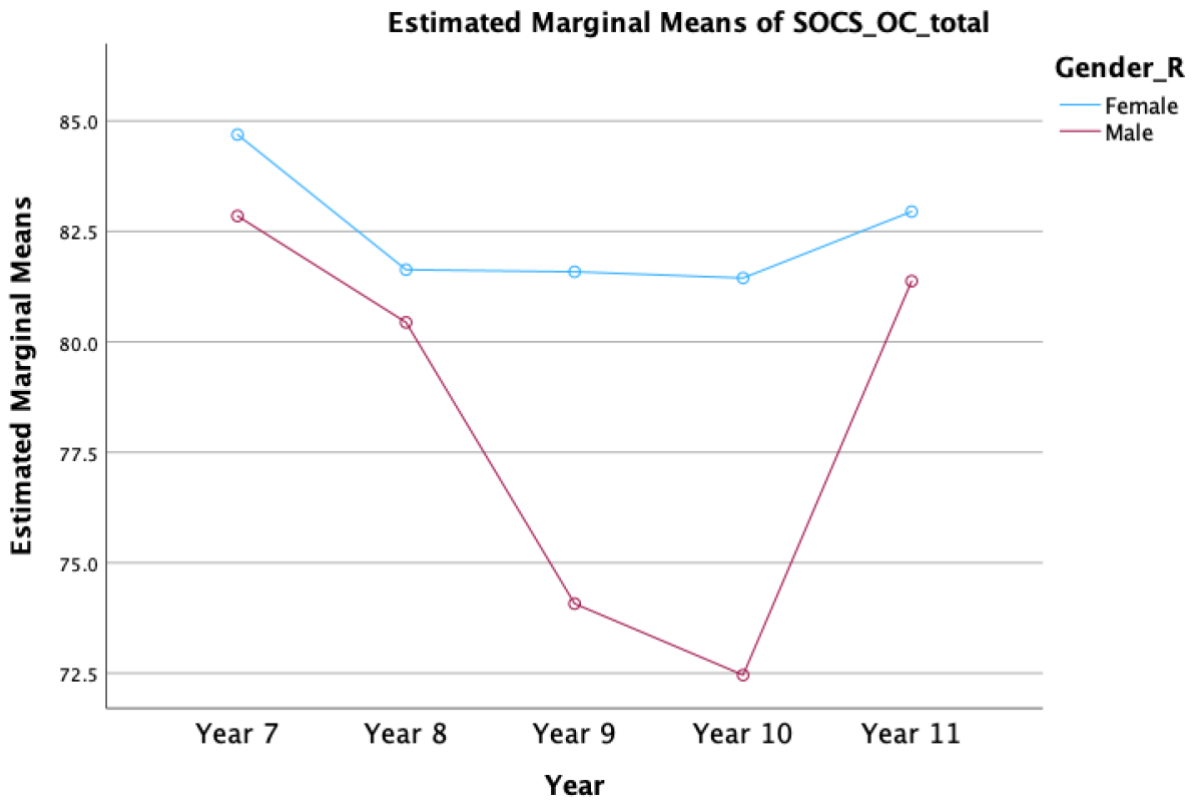
Appendix V

Age and gender interaction plot for the SOCS-S



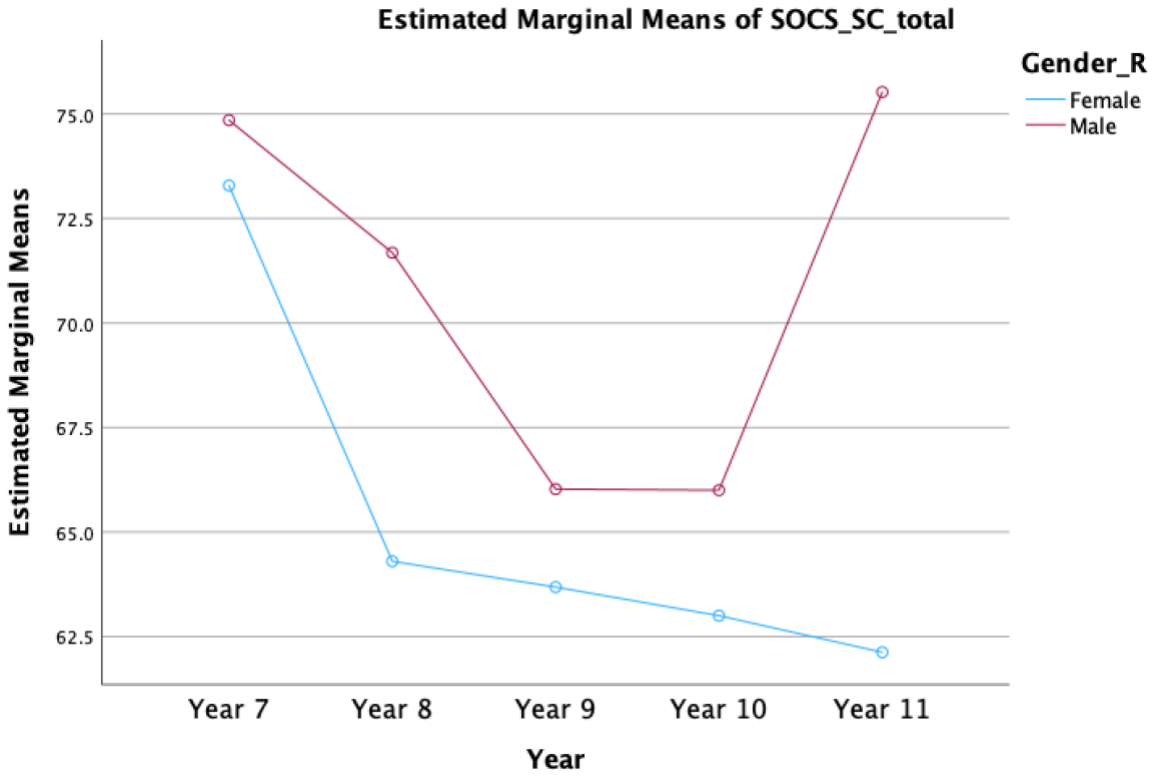
Appendix W

School year group and gender interaction plot for the SOCS-O



Appendix X

School year group and gender interaction plot for the SOCS-S



Appendix Y

Feedback to ethics panels

Dear Ethics Panel,

Study title: Validation of the Sussex-Oxford Compassion Scales (SOCS) with Young People

I am writing to inform you that the above research project has now been completed, and thesis has been written to be submitted for partial fulfilment of the degree of Doctor of Clinical Psychology at Canterbury Christ Church University.

Self-compassion is suggested to be important for young peoples' psychological and social wellbeing. Research highlights issues related to the measurement of compassion in young people and need for valid and reliable self-report measures of compassion for others and self-compassion, to advance research with young people.

The Sussex-Oxford Compassion for Others Scale (SOCS-O) and Sussex-Oxford Compassion for the Self Scale (SOCS-S) were developed by Strauss et al. (2016) due to psychometric weaknesses of compassion measures for adults. The scales are based on the theoretically derived and empirically supported definition of compassion as comprising five dimensions: 1) recognising suffering, 2) understanding the universality of suffering, 3) feeling for the person suffering, 4) tolerating uncomfortable feelings, and 5) motivation to act/acting to alleviate suffering. The five elements refer to compassion for others and self-compassion, as compassion can be directed inward toward the self, or outward towards others. Whilst the scales had demonstrated good psychometric properties with adults, psychometric properties with young people had not been explored.

The study aimed to address the lack of robust compassion measures for young people by psychometrically evaluating the SOCS-O and SOCS-S with young people. More specifically, it aimed to validate the factor structure of the scales, and examine convergent/discriminant validity, interpretability, internal consistency, and floor/ceiling effects. It also aimed to increase understanding about the relationship between compassion for others and self-compassion in young people.

The sample comprised of 486 secondary school students aged 11-16 years (49% female, 47.5% male, 1.2% non-binary, 1.2% other, 1% prefer not to say). A non-experimental, cross-sectional survey design was used, with a longitudinal element to examine test-retest reliability of the scales over 2–3-weeks. A subsample of 70 students completed the SOCS-O and SOCS-S at Time 2.

As predicted, confirmatory factor analysis supported the five-factor and five-factor hierarchical structure for both scales. As hypothesised, both scales showed adequate internal consistency, test re-test reliability, interpretability, convergent/discriminant validity, and no floor/ceiling effects.

Differences existed between compassion for others and self-compassion, in relation to associations with psychological and social wellbeing measures. Whilst self-compassion was significantly positively correlated with mindfulness, wellbeing, and resilience, and negatively correlated with depression and peer victimisation (medium-large effects), compassion for others was significantly correlated with only wellbeing (small effect). Self-compassion and compassion for others were also positively associated. As predicted, females had significantly higher levels of compassion for others than males, and males had significantly higher levels of self-compassion than females. Self-compassion decreased with age, and the oldest females had the lowest levels of self-compassion.

Findings suggest that the scales are psychometrically robust measures of compassion for others and self-compassion for young people and support their use in research and practice. Whilst causal conclusions cannot be made due to the cross-sectional study design, findings suggest that compassion-based interventions being offered to young people early in secondary school may be helpful to improve wellbeing, particularly for females. The scales can also enable the development of the evidence base for compassion-based interventions in young people, by aiding evaluation of their effectiveness and mechanism of action, with randomised control trials particularly needed in this. They also offer opportunities for longitudinal research to be conducted.

Regarding dissemination, it is intended that the study will be submitted for publication in the Assessment Journal.

Appendix Z

Feedback to participants

Canterbury Christ Church University
Salomons Institute for Applied Psychology
One Meadow Road, Tunbridge Wells, Kent TN1 2YG
www.canterbury.ac.uk/appliedpsychology

Thank you again for taking part in the research about compassion.

Compassion can be directed outward towards others (compassion for others) or inward towards the self (self-compassion). Compassion involves the following:

1) recognising suffering
2) understanding suffering is a common experience
3) feeling for the person suffering
4) allowing uncomfortable feelings
5) being motivated to do something to reduce suffering

We have now analysed the results. The results are based on 486 secondary school students aged 11-16 years (49% female, 47.5% male, 1.2% non-binary, 1.2% other, 1% prefer not to say). 70 students completed the questionnaires again 2-3 weeks later.

Summary of the results:

- We found that the compassion questionnaires were good measures of self-compassion and compassion for others in young people.
- Higher self-compassion was linked to greater mindfulness, wellbeing, and resilience, and less experiences of depression and bullying.
- Higher compassion for others was related to greater mindfulness.
- Females had significantly higher levels of compassion for others than males.
- Males had significantly higher levels of self-compassion than females.
- Self-compassion decreased with age.
- Females in Year 11 had the lowest levels of self-compassion.

What are the benefits of the research?

- The results show that the compassion measures can be used in scientific research.
- They suggest that activities that aim to increase compassion being offered to young may be beneficial for wellbeing.
- Using these measures in research will help improve compassion research with young people. This will help us learn more about how compassion works.

Jasmine Hubbard
Trainee Clinical Psychologist