Empathy as Mediator in Relationship between Self-Compassion and Prosocial Behaviour among Adolescents

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Abstract. As a construct which promotes having compassion for ourselves, self-compassion has been found to have an inconsistent relationship with prosocial behaviour. However, the relationship between self-compassion and prosocial behaviour might be mediated by another predictor, such as empathy. The lack of literature discussing self-compassion in adolescents also encouraged this research. In this study, we examine the mechanism between self-compassion and prosocial behaviour through empathy as a possible mediating factor. Participants of this study were 303 adolescents in Indonesia aged 11-18 years old who filled out Self-Compassion Scale, Basic Empathy Scale and Prosocial Tendencies Measure-Revised. All the data were analyzed using the mediation analysis using approach introduced by Hayes. The results of statistical analysis showed there was a direct significant effect of self-compassion on prosocial behaviour (c = 0.10, p<0.05), and there was no significant effect from self-compassion on empathy (b=0.04, 95% CI [-0.030, 0.101]). Therefore, there was no indirect effect from self-compassion to prosocial behaviour through empathy. It can be concluded that empathy is not a mediator in the relationship between self-compassion and prosocial behaviour in adolescents. Even though adolescents with high self-compassion scores are not empathetic by involving themselves too much in other people's emotions, they are still willing to help others.

Keywords: adolescent; empathy; prosocial behaviour; self-compassion

Adolescence is a critical developmental stage where there is a transition from childhood to adulthood. Adolescent development is crucial because teenagers face significant developmental challenges, such as transitioning into high school and university, establishing identities such as majors to pursue job preparation, and forming positive friendships (Cicchetti & Rogosch, 2002; Swartz & Wilde, 2012). This critical developmental stage, however, is not easy for young people to navigate. Adolescents are prone to mental health problems. Peltzer and Pengpid (2018) found that teenagers and young adults in Indonesia have the highest prevalence of depression. Adolescents also have more risk to experience anxiety, fear of social situations, stressful experiences, and conflict with parents (Papalia & Martorell, 2021). With the usage of social media, teenagers are becoming more vulnerable to having a bad self-image. Sleep deprivation, low self-esteem, poor body image, and high depressive symptom scores are all linked to adolescent social media engagement (Kelly et al., 2018). Thus, adolescents need to engage in behaviours that help them have better mental health.

One of the behaviours that help adolescents have better mental health is prosocial behaviour

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(Hirani et al., 2022). Prosocial behaviour is defined as behaviour directed toward another person without anticipation of external consequences (Eisenberg, 1982). Prosocial behaviour has six dimensions, which are a) public prosocial behaviour (behaviours intended to benefit others enacted in the presence of others); b) anonymous (prosocial behaviours, the tendency to help others without other people's knowledge); c) dire (helping others under emergency or crises); d) emotional prosocial behaviours (behaviours intended to benefit others enacted under emotionally evocative situations); e) compliant prosocial behaviours (helping others when asked to); and f) altruism (helping others when it is little or no perceived potential for a direct, explicit reward to the self) (Carlo & Randall, 2002).

Numerous research has revealed advantageous effects of prosocial behaviour on adolescent's mental health outcomes. Positive thinking, life satisfaction, an increase in positive effects, social networks, academic performance, mental health, feelings of compassion, self-efficacy, spirituality, and substance abuse avoidance were some of these advantages of prosocial behaviour (Hirani et al., 2022). Prosocial behaviour is also related to greater self-esteem (Evans & Smokowski, 2015), acceptance (Bowker, 2014), and self-worth (Nelson et al., 2015). Unfortunately, adolescents show lower prosocial behaviour in difficult situation. For instance, a study conducted by Mallott et al. (2009) found that adolescents who experienced rejection and social anxiety showed low prosocial behaviour. A dolescents with increased levels of internalizing and externalizing problems (Ruchkin et al., 2006), experiencing unsupportive peers (Cui et al., 2020), and had depressive symptoms (Waldemar et al., 2016) also showed low prosocial behaviour.

Meanwhile, prosocial behaviour is important for the development of adolescents. Adolescents' participation in prosocial behaviour has the function of educating and preparing them to embrace the social norms and moral standards of society (Lam, 2012). Prosocial behaviour also serves as a protective factor against crime and delinquency and serves as a rehabilitation and correctional function in delinquent youths (Hackenberg-Culotta, 2002). According to developmental studies, prosocial behaviour is positively correlated with psychosocial adjustment in children and adolescents (Eisenberg, 1982). According to study results, prosocial behaviour serves as a protective factor that promotes self-improvement, self-acceptance, and psychosocial adaptation (Keyes, 1998), and nurtures the basic psychological needs for competence, relatedness, and autonomy (Ryan & Deci, 2000). When it comes to the importance of prosocial behaviour in adolescents, there are additional behaviour practices that need to be made in order to preserve prosocial behaviour and improve adolescents' mental health as well as social well-being when confronted with a challenging situation.

Self-compassion is one of the things that would help adolescents cope with difficult situations like worry, sadness, and depression (Marsh et al., 2018; Sun et al., 2016). Self-compassion is a type of self-to-self relating that represents a compassionate rather than uncompassionate stance toward the self when faced with personal suffering: self-kindness versus self-judgement, a sense of common humanity versus isolation, and mindfulness versus over identification (Neff, 2016). Adolescents who practice self-compassion do not compare themselves to others because they see themselves as part of a whole human being who is worthwhile, self-respecting, and who, like everyone else, has flaws and imperfections (Neff, 2003)). People with high self-compassion had higher levels of enjoyment,

optimism, curiosity, and connectivity, as well as lower levels of anxiety, sadness, rumination, and fear of failure (Neff, 2009). Self-compassion works as an emotion regulation strategy that helps people to handle negative emotions with kindness which results in increased well-being (Inam et al., 2021; Neff, 2004).

Self-compassion is made up of six components. The first component is self-kindness, which is defined as the acceptance of one's inadequacies, failings, and suffering without criticizing or criticizing oneself (self-judgment) (Neff, 2003). The second component is self-judgment, a self-judgmental attitude towards suffering, shortcomings, and failures experienced. The third component is common humanity, a state of awareness in which individuals see troubles, failures, and obstacles as human and shared by all people, rather than as isolated events (Neff, 2003). The fourth component is isolation, the condition of individuals who feel separated from others because they feel they are the only ones who feel like they have failed or suffered. The fifth component is mindfulness, a person's ability to perceive, accept, and face reality without having to pass criticism. The last component is overidentification, in which the individual feels occupied with the thoughts and feelings that he is suffering or failing (Neff, 2003).

Although self-compassion focuses on the intrapersonal part of the self, the literature suggests that it is equally linked to interpersonal abilities. People who have self-compassion emphasize relationships with humanity and share issues without isolating themselves when reflecting on their flaws, according to research done by Neff et al. (2007). This is because they see suffering as a natural emotion shared by all individuals, and they urge compassion for others as a result Marshall et al. (2020). Hofmann et al. (2011) further state that practising self-compassion, which prioritizes one's own needs, will allow one to provide affection to others.

Prosocial behaviour is one of the psychological constructs that explain how people treat others. Individuals with a high level of self-compassion will be able to forgive themselves and see their mistakes as part of a wider human experience. As a result, those with a high level of self-compassion are better equipped to appreciate the difficulties that others face and to engage in prosocial behaviour (Welp & Brown, 2014). Furthermore, (Welp & Brown, 2014) discovered the relationship between self-compassion and prosocial behaviour. When the person who wants to be helped makes a mistake and is accountable for the circumstance they are suffering from, people who have high scores on self-compassion would have the desire to help. Individuals with self-compassion view mistakes as a human state that can still be remedied and assisted.

The adult population has been extensively studied in previous literature on self-compassion. Self-compassion, for example, is positively correlated with well-being and negatively correlated with distress in adults (Allen et al., 2012; Rahmandani et al., 2021). Meanwhile, Yang et al. (2019) conducted a study on self-compassion in teenagers, finding that self-compassion in adolescents is positively connected with prosocial behaviour.

Although it has been discovered that self-compassion helps people form interpersonal bonds and is linked to prosocial conduct, previous findings have been contradicted. According to Lopez et al. (2018), self-compassion does not correspond with compassionate behaviour toward others.

Furthermore, in college students, self-compassion was found to be unrelated to altruism (Welp & Brown, 2014). Marshall et al. (2020) who conducted a longitudinal study found that adolescents with self-compassion did not predict prosocial behaviour towards their peers.

There is a complex psychological process involved in prosocial behaviour, namely when a person takes another person's perspective or point of view, which is known as empathy (Welp & Brown, 2014)). Empathy is the understanding and sharing of another's emotional state or context (Cohen & Strayer, 1996). Empathy has two dimensions, which are a) cognitive empathy, which is the intellectual/imaginative apprehension of another's mental state, and b) affective empathy, which is having an appropriate emotional response when dealing with another person's mental status (Lawrence et al., 2004). The study by Marshall et al. (2020) found a correlation between empathy and prosocial behaviour. Empathy for someone results in altruism motivating people to help others, without benefiting themselves, which is explained by the empathy-altruism hypothesis (Batson et al., 1988; Welp & Brown, 2014).

According to Schroeder et al. (2015), there are three types of empathy that affect prosocial behaviour: 1) empathic concern (adopting the perspective of others who need help, causing emotional responses in the form of feelings of closeness and similarity); 2) dispositional empathic concern (aspects of the situation where the observer sees that people who need help are unable to escape the difficult conditions they are experiencing at a given time); and 3) perspective taking (efforts by individuals to understand other people by imagining other people's point of view). Neff and Pommier (2013) found that perspective-taking and empathic concern were positively and significantly correlated with self-compassion in adults, which explains that empathy is not only related to prosocial behaviour but also self-compassion. Self-compassion related to empathy describes that although individuals put themselves first, self-compassion also encourages individuals to do good to others (Hofmann et al., 2011). The research conducted by Inam et al. (2021) found that self-compassion has a significant positive relationship with cognitive empathy, namely taking another person's point of view, and affective empathy, the ability to regulate emotions when seeing the suffering of others. In addition, research conducted by Longe et al. (2010) who instructed individuals to be more self-compassionate found neuronal activity similar to what occurs when feelings of empathy for others are evoked.

Research conducted by Yang et al. (2019) in China found that relatedness and trust mediate the relationship between self-compassion which is positively correlated with prosocial behaviour in adolescents. However, Yang et al. (2019) explain that the relationship between self-compassion and prosocial behaviour is very likely to be explained by other variables, such as empathy. The contradictory literature on the association between self-compassion and prosocial behaviour motivates this study to investigate the interaction between these two variables in the setting of Indonesian adolescents. Furthermore, it was hypothesized in this study that empathy mediates the association between self-compassion and prosocial behaviour in adolescents.

Method

Participants

Participants were selected purposively through the following criteria: 1) Adolescent who lives in Indonesia; 2) Male and female; 3) Be 11 to 18 years old due to the adolescent definition by Papalia and Martorell (2021). This research wants to get a broad picture of self-compassion, empathy, and prosocial behaviour in Indonesian adolescents. This studies involving adolescent participants were reviewed and approved by the Faculty of Psychology Ethics Committee of the University of Indonesia (approval number: 099/FPsi.Komite Etik/PDP.04.00/2022). The participants provided their informed consent to participate in this study.

The questionnaire was distributed online via google form following the Indonesian government's health protocol in response to the COVID-19 pandemic situation. Data collection was carried out in July 2022 by distributing the link of the questionnaire to social media, such as WhatsApp, Facebook, and Instagram. Informed consent is listed on the first page of the questionnaire by explaining the purpose of the study, the duration of filling out the questionnaire, the rights of the respondent, and the contact person.

After obtaining ethical approval, adapting measuring instruments, conducting readability tests, and testing measuring instruments, 303 participants filled out the research instruments. Based on the gender frequency distribution of participants, it can be seen as many as 233 students (77%) were female. There were 99 participants (33%) aged 15 years old, followed by 90 participants (30%) aged 17 years old, 48 participants (18%) aged 18 years old, 44 participants (15%) aged 16 years, and others are 14(2%), 12(2%), 11(1%), and 13 years old (1%).

Instruments

This study used three psychological scales presented online to reduce direct contact with participants. The choice to use an online survey is intended to reduce the transmission of the COVID-19 virus during the pandemic.

1. Self Compassion Scale (SCS) The Self Compassion Scale (SCS) was used to measure self-compassion. SCS has been developed by Neff (2003) and has been adapted by Adi (2018) to the adolescent population aged 18-25 years old in Indonesia. After measuring the validity and reliability test, according to Adi (2018), SCS has a good reliability with Cronbach's alpha = 0.87 with 6 items having a score of corrected item-total correlation <0.30. After the expert's test validity, Adi (2018) did not eliminate any 26 items of SCS. Nevertheless, before collecting the research data, this study also measuring SCS content validity through expert's test validity. After that, SCS was administered to 38 adolescents who's aged 11-18 years old other than the research participants in March-April 2022. The 26 items of SCS show corrected item-total correlation values in the range 0.262 – 0.601. SCS also has good reliability with Cronbach's alpha = 0.817. For completing SCS, participants were asked to rate each item on a five-point range, moving from 1 (Never) to 5

(Always). Two examples of the items are "I do not praise and judge my shortcomings and incompetence" and "When I fail at something important to me, I tend to feel alone in my failure".

- 2. Prosocial Tendencies Measure-Revised (PTM-R) The Prosocial Tendencies Measure-Revised (PTM-R) was used to measure prosocial behaviour in adolescent. PTM-R has been developed by Carlo and Randall (2002). This scale consists of 21 items with scores ranging from 1 (Does Not Describe Me at All) to 5 (Describes Me Greatly). After granted permission from Mr. Gustavo Carlo, this scale was translated into Indonesian through a translation and back-translation process. After being translated, experts test validity by reviewing the extent to which each item is relevant and represents the construct. It is known that all items have relevance and represent the measuring construct. Reliability test was done to 38 adolescents who's aged 11-18 years old other than research participants in March-April 2022. The 21 items of PTM-R have score range of corrected item-total correlation 0.259 0.647. The Indonesian version of Prosocial Tendencies Measure-Revised (PTM-R) shows a value of 0.728. An example of an item of Prosocial Tendencies Measure-Revised (PTM-R) is "I can help others best when people are watching me".
- 3. Basic Empathy Scale (BES) The Basic Empathy Scale (BES) was used to measure empathy. BES has been developed by Jolliffe and Farrington (2006). This scale consisted of 20 items with the original version is available in English and needs to be translated into Indonesian before use. After granted permission from Mr. Jolliffe, the translation and back-translation procedure were then carried out to translate the Basic Empathy Scale into Indonesian. Experts also tested validity by reviewing the relevance of each item to the construct. Reliability and validity test was done to 38 adolescents who's aged 11-18 years old other than research participants in March-April 2022. The reliability of the Basic Empathy Scale shows Cronbach's alpha value of 0.711 with the range score of corrected item-total correlation 0.260 0.510. An example of an item on the Basic Empathy Scale is "My friend's emotions don't affect me much".

Result

Table 1Descriptive Analysis of Research Variables

Variable	Minimum	Maximum	Mean	SD	Category		
					Low	Moderate	High
Self-Compassion	41	112	83.12	12.50	1 (0.33%)	29 (9.57%)	273 (90.1%)
Empathy	46	91	65.64	7.234	0 (0%)	38 (12.54%)	265 (87.46%)
Prosocial Behaviour	37	95	70.21	9.242	1 (0.33%)	47 (15.51%)	255 (84.16%)

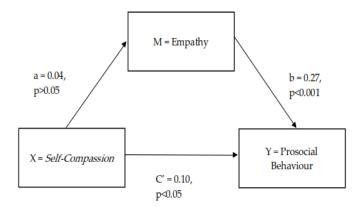
More than 80% of 303 participants have high levels of self-compassion, empathy, and prosocial behaviour. The three variables also have the same pattern, namely the most frequent categories are high level, then moderate, and low levels. The participants' group categories were made through calculation from the hypothetical mean (see Table 1).

 Table 2

 Coefficient of Self-Compassion, Empathy, and Prosocial Behaviour

Predictor	Effect							
		M (Empathy)				Y (Prosocial Behaviour)		
		Coeff	SE	P		Coeff	SE	P
X (Self-Compassion)	Α	0.04	0.03	0.29	c′	0.10	0.04	0.02
M (Empathy)					В	0.27	0.71	0.00
Constant	\mathbf{i}_1	62.18	2.80	0.00	i_2	43.91	5.70	0.00
	$R^2 = 0.00$					$R^2 = 0.07$		
	F(1.301)=0.28				F(2.300)=10.92			

Figure 1Causal Relationship of Self-Compassion, Empathy, and Prosocial Behaviour



According to Table 2 and Figure 1, it is known that there was a direct significant relationship between self-compassion on prosocial behaviour (c = 0.10, p < 0.05). There was also a significant effect from empathy to prosocial behaviour (b = 0.27, p < 0.001). Nevertheless, there was no significant effect of self-compassion on empathy (a = 0.04, p > 0.05). Therefore, there was no indirect effect from self-compassion to prosocial behaviour through empathy. The statistical analysis showed that the mediation requirement was not fulfilled.

Table 3Direct Effect, Indirect Effect, and Total Effect of Self-Compassion on Prosocial Behaviour

	Effect	SE	Boot SE	p	Boot LLCI	Boot ULCI
Indirect	0.097		0.01		-0.0097	0.0332
Direct	0.1005	0.0413		0.155	0.0193	0.1818
Total	0.1103	0.421		0.0093	0.0273	0.1932

The mediation analysis showed an indirect effect score was 0.097, therefore each enhancement unit on self-compassion was differently predicted as 0.097 units on prosocial behaviour as a result of the relatively high empathy, so it affected the higher prosocial behaviour. This indirect effect

was statistically not different from zero, as shown by 95% of the *bootstrap confidence interval* which fully involved zero (-0.009 until 0.033). The direct effect of self-compassion on prosocial behaviour has a positive coefficient and has a significant effect due to the statistical difference with zero, with a 95% confidence interval from 0.019 to 0.182. It showed that each individual who has 1 unit of self-compassion would have a 0.100 higher score of prosocial behaviour. It can be concluded that the relationship between self-compassion, empathy and prosocial behaviour did not fulfil the mediation criteria as mentioned by Hayes (2013). Therefore, there was no mediation of empathy between the relationship between self-compassion and prosocial behaviour.

Discussion

This study indicates that empathy does not significantly mediate the influence of self-compassion on prosocial behaviour in adolescents. Nevertheless, self-compassion has a direct effect on prosocial behaviour. In addition, the result of the data analysis also showed that empathy has also a direct effect on prosocial behaviour.

This study supports the previous finding that helping intentions increased with higher levels of self-compassion (Welp & Brown, 2014). Self-compassion or mercy for self can cause a sense of compassion for others (Puspasari & Nabila, 2019). Willingness to help can come from the self in addition to the situation (Welp & Brown, 2014). People with a higher level of self-compassion may be more willing to help because they forgive and accept human error, which is a central tenant of self-compassion (Welp & Brown, 2014). A person who has self-compassion would tend to generalize compassion on him onto others. When the feeling of compassion for others' difficulty experienced by others increased, then it will push to inflict helping behaviour on others.

From this research, it was found that self-compassion did not correlate with empathy in the adolescent population in Indonesia. Therefore, the mediation requirements were not met. The finding of this study supports the previous research of Inam et al. (2021) and Gandara (2017) who found that self-compassion had no significant relationship with overall empathy. In this study, empathy is measured through two things, which are cognitive empathy and affective empathy. For having cognitive empathy, people need to be engaged with the experiences of others. Meanwhile, cognitive empathy has not had a relation to self-compassion because self-compassion needs the person to mentally step outside of oneself to consider the shared human experience and extend kindness to oneself (Neff & Pommier, 2013).

In relation to affective empathy, due to the mindfulness dimension of self-compassion, participants who were high in self-compassion were simply less likely to be affected by others' emotions (Welp & Brown, 2014). People who were high in self-compassion used to be mindful, and view reality as it exists, without exaggerating or denying one's reality (Gandara, 2017; Neff & Pommier, 2013). Therefore, people who are self-compassionate are also less likely to feel burdened by the suffering of others due to their capability to calm themselves in difficult situations (Neff & Pommier, 2013). However, even though people with high self-compassion scores are not empathetic by involving

themselves too much in other people's emotions, they are still willing to help others (Welp & Brown, 2014).

This study also consistently supports previous studies that empathy has a significant effect on prosocial behaviour. The propensity for empathy serves as both a driving force and a springboard for engaging in prosocial behaviour (Eisenberg, 2000). People with a higher level of empathic concern are more likely to do prosocial behaviour when a person in a prosocial situation scenario needs assistance (Pang et al., 2022). Empathy plays a critical role in promoting prosocial behaviour and helps to reduce others' distress and to reduce aggression. Research conducted by Decety et al. (2016) found that empathy is the core mechanism leading from others' distress to performing a prosocial behaviour. Witnessing someone else's suffering can cause a physiological stress reaction as well as adverse affective arousal. For reducing one's aversive empathic arousal, helping and caring are inherently rewarding.

The relationship between self-compassion to prosocial behaviour in adolescents might be mediated not with something that may be changed like empathy within age. Age was found to be a predictor of higher levels of self-compassion, perspective-taking, sympathetic concern, and altruism. The research found that compassion for oneself and others grows through time, as a result of an increasing understanding of the universality of human hardships (Neff & Pommier, 2013). In this study, even though many participants had high empathy, there was no correlation between self-compassion and empathy might be explained because adolescents still have egocentrism which starts to wane in the early years of adulthood (Richter & Kunzmann, 2011). More research is needed to determine how age is related to self-compassion and empathy.

Meanwhile, the study conducted by Puspasari and Nabila (2019) found that agreeableness was a mediator in the relationship between self-compassion and prosocial behaviour. A person who has the personality of agreeableness easier to help others. A person who has a high level of self-compassion will have a great social life. Similar to agreeableness, someone with a pleasant disposition is likely to have positive social relationships with others. For those who desire to have positive social relationships, self-compassion can promote the establishment of prosocial behaviour (Puspasari & Nabila, 2019). Therefore, the relationship between self-compassion to prosocial behaviour was mediated by traits which more stable throughout life.

This study has several limitations that must be considered. First, the majority of participants were female, which makes the result might not be generalized for male adolescents. Second, because the author does not have control when the subject fills out the questionnaire, the use of online questionnaires might cause the answers to contain subjectivity to the data. The analysis's findings can only be applied to specific populations as a result of these limitations.

Conclusion

Self-compassion has a significant direct effect on prosocial behaviour. This means that adolescents who have a high score in self-compassion would like to engage in prosocial behaviour. Empathy also

has a significant direct effect on prosocial behaviour, therefore adolescents who have a high score on

empathy would like to engage in prosocial behaviour. Nevertheless, empathy did not mediate the

relationship between self-compassion and prosocial behaviour.

Recommendation

The suggestion for future research is to consider personality traits other than agreeableness which

might contribute as both mediators and moderators of the relationship between self-compassion and

prosocial behaviour. Considering the relationship between self-compassion to prosocial behaviour was mediated by traits which more stable throughout life, more research is needed to determine how age

is related to self-compassion and empathy.

Declarations

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Author's Contribution

AW wrote and did this research with the help of LSYS in designing the theoretical concept, preparing

the measuring tools, collecting, and analyzing the data. LSYS is AW's supervisor and reviewer, as she

is a lecturer at the University of Indonesia.

Conflict of Interest

The authors declare that there is no conflict of interest in this research.

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