Rejection sensitivity and adolescent non-suicidal self-injury: Mediation through depressive symptoms and moderation by fear of self-compassion

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Objectives. Rejection sensitivity is a risk trait that contributes to the relationships between rejection experiences in various domains and non-suicidal self-injury (NSSI). However, research about the association between rejection sensitivity and NSSI has still been understudied. This study sought to examine the mediating role of depressive symptoms and the moderating role of fear of self-compassion in the association between rejection sensitivity and adolescent NSSI.

Design. A cross-sectional correlational design was employed through which rejection sensitivity, depressive symptoms, fear of self-compassion, and NSSI experiences in the past year were measured.

Methods. Seven-hundred twenty-eight Chinese secondary school students (51.1% females; mean age = 14.07, SD = 0.75) were included by convenient sampling.

Results. Regression analyses revealed that depressive symptoms worked as a mediator in the association between rejection sensitivity and NSSI. It was also found that fear of self-compassion acted as a moderator, such that a higher level of fear of self-compassion strengthened the link between rejection sensitivity and depressive symptoms and the direct link between rejection sensitivity and NSSI.

Conclusions. These findings highlight the need to address adolescents’ rejection sensitivity, depressive symptoms, and fear of self-compassion in preventing and intervening NSSI.

Practitioner points

- Focusing on rejection sensitivity might help understand the relationships between intra- and interpersonal distress and NSSI. The findings of this study evidenced the risk effect of adolescents’ rejection sensitivity on NSSI and the partial mediation of depressive symptoms in the link. Targeting...
adolescents’ rejection sensitivity will be beneficial in developing NSSI-related prevention and intervention programs.

- This study also found that adolescents’ fear of self-compassion magnified the associations between rejection sensitivity, depressive symptoms, and NSSI. It suggests that targeting adolescent’s fear of self-compassion will also be beneficial.

Non-suicidal self-injury (NSSI) refers to the direct, deliberate, and socially unacceptable destruction of one’s own body tissue without the lethal intent (Nock, 2010). NSSI is often accompanied by various psychiatric disorders (e.g., eating disorder, bipolar disorder, and borderline personality disorder; Bentley, Cassiello-Robbins, Vittorio, Sauer-Zavala, & Barlow, 2015) and increases the risk of future suicide attempt (e.g., You & Lin, 2015). In 2013, NSSI was included in DSM-5 as a ‘condition requiring further study’ (American Psychiatric Association, 2013). The onset and prevalence of NSSI are typical during adolescence. According to the latest meta-analysis, the international prevalence of NSSI among adolescents is up to 17.2% (Swannell, Martin, Page, Hasking, & St John, 2014). In Chinese middle-school students, the estimated pooled prevalence of NSSI is even up to 22.4% (Lang & Yao, 2018). Adolescence is a developmental phase characterized by increased social evaluative concerns (e.g., Masten et al., 2009; Westenberg, Gullone, Bokhorst, Heyne, & King, 2007). Adolescents pay increased attention to the perceptions of parents, peers, and friends and show great concerns with how they are doing in social interactions. Research has reported that NSSI is often used as a kind of maladaptive self-regulatory strategies dealing with adolescents' rejection experiences, such as parental rejection (Quirk, Wier, Martin, & Christian, 2015), sibling bullying (Bowes, Wolke, Joinson, Lereya, & Lewis, 2014), and peer rejection or bullying (Esposito, Bacchini, & Affuso, 2019; van Geel, Goemans, & Vedder, 2015). Therefore, it is of much significance to understand the mechanisms underlying the relationship between social rejection and NSSI in adolescents.

Rejection sensitivity and NSSI

One important mechanism that contributes to the links between rejection experiences in various domains and NSSI is rejection sensitivity. Rejection sensitivity is conceptualized as a cognitive-affective disposition to anxiously or angrily expect, readily perceive, and overly react to social rejection (Downey & Feldman, 1996; London, Downey, Bonica, & Paltin, 2007). According to the rejection sensitivity model (Levy, Ayduk, & Downey, 2001), rejection experiences in various domains may render individuals, particularly children and adolescents, more hypervigilant to any clues of rejection. They may readily generate feelings of being rejected, which may then elicit a series of cognitive-affective reactions (e.g., anxiety, self-blaming, emotional pain, and hostility). Subsequently, they are likely to engage in maladaptive behavioural reactions (e.g., social withdrawal, aggression, and self-harm), which fuels occurrence of true social rejection, perpetuating the rejection cycle (Levy et al., 2001). Therefore, people with high rejection sensitivity are more likely to suffer from interpersonal problems and intrapersonal maladjustment than their counterparts with low rejection sensitivity. Extant literature has evidenced that high rejection sensitivity resulted in hostility, jealousy, withdrawal, aggression, and dissatisfaction in relationship (e.g., Downey, Lebolt, Rincón, & Freitas, 1998) and incurred mental health problems (such as depression and anxiety; see Gao, Assink, Cipriani, & Lin, 2017 for a review).
Rejection sensitivity also increases the risks for one’s self-injurious thoughts and behaviours (see Cawley, Pontin, Jade, Kate, & Peter, 2019 for a review). People with high rejection sensitivity easily experience interpersonal loss and personal distress. According to the interpersonal theory of suicide (Joiner, 2005), the interpersonal loss may be interpreted as thwarted belongingness and perceived burdensomeness and confer risks for self-injurious thoughts (e.g., suicide ideation). For example, in Brown, Mitchell, Roush, La Rosa, and Cukrowicz (2019)’s study with a sample of psychiatric inpatients, it was found that rejection sensitivity was indirectly associated with suicidal ideation through greater feelings of thwarted belongingness and perceived burdensomeness about their social connections. Also, Baumeister (1990) proposed that self-injurious behaviours might be used as a type of regulatory ways for meeting people’s wishes of escaping from personal distress.

The link between rejection sensitivity and NSSI has also been demonstrated. With a sample of 352 adults with current or a past history of NSSI, Baumkirchner (2009) reported that rejection sensitivity was a significant predictor of NSSI after controlling for psychological distress. Breines and Ayduk (2015) conducted four studies (one cross-sectional survey and three experiments) to reveal that adults with high rejection sensitivity reported or showed greater self-directed hostile cognitions in situations of rejection than their counterparts with low rejection sensitivity, after controlling for neuroticism, depressive symptoms, history of self-directed cognitions, and general hostility. Peters, Smart, and Baer (2015) also reported a positive association between rejection sensitivity and self-harm in a sample of young adults, although, when dysfunctional responses to emotion were adjusted for, the association became non-significant. Besides, in several recent neuroimaging studies where rejection was experimentally induced, it was found that adolescents with NSSI were high in rejection sensitivity and showed enhanced neural processing of social exclusion, as compared to healthy controls, depression patients, or borderline personality disorder patients (Brown et al., 2017; Groschwitz, Plener, Groen, Bonenberger, & Abler, 2016; Perini et al., 2019). Findings from these studies suggest that dispositional rejection sensitivity may also confer risk for NSSI in community adolescents. More efforts are encouraged to further understand this association (Cawley et al., 2019).

**Depressive symptoms as a mediator**

The association between rejection sensitivity and NSSI may be partially accounted for by depressive symptoms. On the one hand, depressive symptoms play an important role in the development and maintenance of NSSI (e.g., Marshall, Tilton-Weaver, & Stattin, 2013). According to the affect regulation model, NSSI is a kind of maladaptive strategies to decrease youth’s emotional distress (Klonsky, 2007), of which depressive feelings are the most typical. When experiencing depressive feelings, youth may engage in NSSI (e.g., self-cutting) because it is a rapid and effective way of regulating the depressive feelings (Nock, 2010). Several meta-analyses have evidenced the substantial role of depressive symptoms in predicting NSSI (Fox et al., 2015; Plener, Schumacher, Munz, & Groschwitz, 2015; Valencia-Agudo, Burcher, Ezpeleta, & Kramer, 2018).

On the other hand, rejection sensitivity also increases the risk for depressive symptoms. In social interactions, youth sensitive to social rejection easily generate dysfunctional expectations that others will not be accepting or will be rejecting, which may then elicit intense dysfunctional emotional responses, such as stress, anxiety, anger, rumination, and helplessness. Subsequent behavioural overreactions (e.g., social withdrawal or aggression) may further lead to social isolation and loneliness. Such personal
distress and social loss may eventually coalesce as depressive symptoms characterized by depressed, feelings of meaninglessness, motivational declines, and negative self-cognition (e.g., Ayduk, Downey, & Kim, 2001; Zimmer-Gembeck, Trevaskis, Nesdale, & Downey, 2014). In Gao et al. (2017)'s meta-analytic review, the estimated pooled coefficient of the association between rejection sensitivity and depressive symptoms was modest and robust \( r = .332 \). Thus, we believed that depressive symptoms could be a mediator contributing to the relationship of rejection sensitivity to NSSI.

**Fear of self-compassion as a moderator**

Not all adolescents with high levels of rejection sensitivity will exhibit maladaptive psychological outcomes (e.g., Ayduk et al., 2000). Interpersonal and intrapersonal characteristics may buffer or exacerbate the link. Previous studies have demonstrated that several interpersonal variables, such as parental support (Thomas & Bowker, 2015) and friendship quality (Bowker, Thomas, Norman, & Spencer, 2011), mitigated the association between high rejection sensitivity and maladaptive outcomes. However, limited studies have explored the moderating variables from the intrapersonal end (e.g., Fontana et al., 2018). Both depressive symptoms and NSSI are ways of exhibiting the distressed self (e.g., Breines & Ayduk, 2015; Tarlow & Haaga, 1996); thus, the association between rejection sensitivity and NSSI through depressive symptoms might be modulated by some self-related factors. Self-compassion is one such factor that has been paid growing attention to on its benefits against youth psychological distress (see Marsh, Chan, & MacBeth, 2018 for a review), including NSSI (e.g., Jiang, You, Zheng, & Lin, 2017). However, not all people benefit from compassion training; instead, some people have difficulties to develop self-compassion (i.e., fear of self-compassion; Gilbert, McEwan, Matos, & Rivis, 2011). In this study, we attempted to examine whether fear of self-compassion was a factor modulating the association between rejection sensitivity and NSSI via depressive symptoms.

Fear of self-compassion refers to the resistance and tendency to avoid experiencing or generating feelings of self-directed warmth or care (Gilbert et al., 2011). It is rooted in ones’ underdeveloped social safeness or soothing system (Gilbert, 2000). Individuals who respond to self-compassion with strong fear and resistance tend to be in risk of psychopathology (e.g., Gilbert et al., 2012; Joeng et al., 2017; Kelly, Carter, Zuroff, & Borairi, 2013). Xavier, Pinto-Gouveia, and Cunha (2016) for the first time revealed the risk effect of fear of self-compassion on NSSI. What’s more, fear of self-compassion might magnify the risk effect of rejection sensitivity on depressive symptoms and NSSI. Ones’ dysfunctional expectations of rejection may be due to the lack of the clarity about self-concept in social interactions (Ayduk & Gyurak, 2008). Fear of self-compassion could intensify the negativity of such expectations and render individuals overly react, triggering the self-fulfilling prophecy of social rejection. When facing with rejection, those with high fear of self-compassion would experience more intense personal distress and may be more likely to internalize rejection experiences into self-models, reinforcing negative self-cognitions. They may also lack enough positive psychological resources to manage such negative emotions and thoughts (Liotti & Gilbert, 2011) and may thus be stuck in emotional distress and use maladaptive coping strategies, such as NSSI.

**The present study**

To sum up, the current study aimed to examine (1) whether the relationship between rejection sensitivity and NSSI was mediated by depressive symptoms, and (2) whether and
how fear of self-compassion moderated the effect of rejection sensitivity on NSSI through depressive symptoms. The hypothesized model is outlined in Figure 1. We hypothesized that (1) depressive symptoms mediated the relation between rejection sensitivity and NSSI, and (2) fear of self-compassion intensified both the direct relationship between rejection sensitivity and NSSI and the indirect relationship through depressive symptoms.

Methods

Participants and procedure
Participants were 728 adolescents (51.1% females) aged from 12 to 16 years (mean = 14.07, SD = 0.75). They were students in Grades 7 (40%) and 8 (60%) from three public secondary schools. All of them speak Mandarin Chinese as their primary language. Over half of them reported they were from rural areas (54.9%). Approximately three in four adolescents’ fathers (74.9%) and mothers (79.8%) had only a junior high school degree or below.

The study was conducted online via a Chinese survey website (www.sojump.com). With the approval of the ethical board of the corresponding author’s university, we sent related materials including study aims and questionnaires to the school authorities of several secondary schools in the Luzhou City, Sichuan Province, China. Three schools agreed to participate. We then sent the survey link, instructions, and dos and don’ts during the whole assessment process to the three schools. The schools arranged their students in Grades 7 and 8 to complete the survey during computer classes at school. Teachers were required to inform the students that participation was voluntary and all the information collected was confidential. Parental passive informed consent was obtained. We initially received 956 questionnaires. After deleting the invalid questionnaires (e.g., being rated on the same option on all the scales, unfinished, or from an abnormal IP address), we obtained a final sample of 728 students, with an effective rate of 76.2%. Since the online system default is ‘Mandatory Response’, we got no missing data.

Measures

Non-suicidal self-injury (NSSI)
Seven common NSSI behaviours, that is, cutting, burning, carving, scratching skin, inserting objects to the nail or skin, banging the head or other body parts against the wall to bruise, and punching to bruise, were assessed. Participants reported the frequency

Figure 1. Hypothesized model.
with which they engaged in each behaviour without suicidal intent in the past year from 1 (never), 2 (once or twice), 3 (three to five times), to 4 (six times or more). A continuous variable of NSSI frequency was computed by summing up the scores of all seven items, with higher scores indicating higher NSSI frequencies. This measure has demonstrated sufficient validity in some research (e.g., Esposito et al., 2019; Liu, You, Ying, Li, & Shi, 2020). Cronbach’s alpha coefficient was .92 in the current study.

**Rejection sensitivity**

The Chinese version of the Child Rejection Sensitivity Questionnaire (CRSQ; Downey et al., 1998) was used to measure the level of rejection sensitivity. The measure had six written scenarios that evoked participant’s rejection threat from their peers and teachers (e.g., ‘You had a fight or quarrel with a friend the other day. Now, you have a serious problem and wish to talk to the friend. You wonder if the friend will agree to talk to you today’). After reading each vignette, participants answered three questions. The first two questions of each scenario assessed anxious (e.g., ‘How nervous would you feel about whether or not the friend will talk to you’) and angry (e.g., ‘How mad/angry would you feel about whether or not the friend will talk to you’) reactions towards the situation using a 6-point scale ranging from 1 (not nervous or mad) to 6 (very, very nervous or mad). The third question asked about expectation of acceptance (e.g., ‘Do you think he/she will talk to you?’), with responses ranging from 1 (no) to 6 (yes). An anxious score and an angry score were calculated for each scenario by multiplying the score on the anxious/angry item with the reverse coding score on the expectation item. An overall anxious score and an overall angry score were then obtained by averaging the anxious and angry scores across each scenario. Finally, the overall anxious score and the overall angry score were averaged to form a total rejection sensitivity score, with higher scores indicating higher rejection sensitivity. Cronbach’s alpha coefficient was .91 in the current study.

**Depressive symptoms**

The seven-item Depression Subscale of the Chinese version of the short Depression Anxiety Stress Scale (DASS-21; Wang et al., 2016) was used to measure adolescent’s depressive symptoms over the last 6 months. Sample items included ‘I feel that life is meaningless’. Participants responded on a 4-point scale, ranging from 1 (do not apply to me at all) to 4 (apply to me very much). The total depressive symptom score was calculated by averaging the scores on the seven items, with higher scores indicating more depressive symptoms. Cronbach’s alpha coefficient was .89 in the current study.

**Fear of self-compassion**

The Fear of Self-compassion Subscale in the Fear of Compassion Scale (Gilbert et al., 2011) was used to measure adolescents’ fear of self-compassion. This measure is a single-factor measure including 15 items (e.g., ‘I worry that if I develop compassion for myself, I will become someone I do not want to be’). Participants responded on a 5-point scale, ranging from 1 (do not agree at all) to 5 (completely agree). Mean scores were calculated, with higher scores indicating higher fear of self-compassion. Cronbach’s alpha coefficient was .91 in the current study.
**Data analysis**

We first computed the prevalence rate of NSSI in the current sample and conducted gender difference analyses. Then, descriptive statistics of study variables were calculated. Since the data of NSSI exhibited significant skewness (>3) and kurtosis (>10), we performed rank transformation by using Blom (1958)’s formula before testing the proposed model. The transformation resulted in acceptable levels (Kline, 2011) of skewness (i.e., 2.07) and kurtosis (i.e., 3.08) for NSSI. To test our model, we used Model 8 of the SPSS macro PROCESS version 3.0 (www.afhayes.com) developed by Hayes (2018). This module is specifically used for testing complex models including both a mediator and a moderator (see Figure 1 as a sample model). A bootstrapping (n = 5,000) procedure was used to test and verify the moderated mediation effect (Preacher, Rucker, & Hayes, 2007). This procedure yielded a 95% bias-corrected confidence interval (BC 95% CI) for index of moderated mediation. When zero was not contained in the 95% CI of index, the mediation effect was significantly moderated. Finally, the Johnson–Neyman (J-N) technique was applied to probing interactions. All analyses were conducted with SPSS 20.0.

**Results**

**Preliminary analyses**

Overall, 17.4% of the participants (n = 127) reported having engaged in at least one incidence of NSSI in the previous 12 months. Chi-square analysis showed that females (19.1%, n = 372) were not significantly more likely than males (15.7%, n = 356) to engage in NSSI, $\chi^2 (1, N = 728) = 1.42, p = .233$. Neither did female self-injurers report higher frequencies of NSSI than their male counterparts, $t (125) = 1.97, p = .051)$. Descriptive statistics and correlation matrix are shown in Table 1. Apart from gender and age, all the correlation coefficients were significant ($p$s < .001) and in expected directions. Rejection sensitivity was positively associated with fear of self-compassion, depressive symptoms, and NSSI. Fear of self-compassion was also positively associated with depressive symptoms and NSSI.

**Testing for the moderated mediation models**

After adjusting for sex and age, NSSI was significantly predicted by rejection sensitivity ($\beta = .29$, $p < .001$). Then, depressive symptoms as the mediator and fear of self-

| Table 1. Descriptive statistics and intercorrelations between study variables |
|-----------------|---|---|---|---|---|---|
|                | 1 | 2 | 3 | 4 | 5 | 6 |
| Sex            | – | – | – | – | – | – |
| Age            | – | –08* | – | – | – | – |
| Rejection sensitivity | .07 | .04 | – | – | – | – |
| Fear of self-compassion | .02 | .06 | .19*** | – | – | – |
| Depressive symptoms | –.06 | .09* | .37*** | .30*** | – | – |
| Non-suicidal self-injury | –.01 | .26*** | .23*** | .42*** | – | – |
| Range          | – | 12 ~ 16 | 1 ~ 36 | 1 ~ 5 | 1 ~ 4 | 7 ~ 28 |
| Mean           | – | 14.07 | 8.36 | 2.84 | 1.60 | 8.05 |
| SD             | – | 0.74 | 5.29 | 0.77 | 0.64 | 2.99 |

Note. Sex is coded 1 = male, 2 = female; N = 728; *p < .050; **p < .010; ***p < .001.
compassion as the moderator were included. Table 2 presents the main results of the moderated mediation model. Depressive symptoms were significantly associated with rejection sensitivity ($\beta = .34, p < .001$), fear of self-compassion ($\beta = .24, p < .001$), and the interaction term of rejection sensitivity and fear of self-compassion ($\beta = .09, p = .002$). NSSI was significantly predicted by rejection sensitivity ($\beta = .10, p < .001$), depressive symptoms ($\beta = .21, p < .001$), fear of self-compassion ($\beta = .07, p = .004$), and the interaction term ($\beta = .08, p < .001$). The 95% CI of the index of moderated mediation excluded zero, indicating that the mediating effect of depressive symptoms in the association between rejection sensitivity and NSSI was significantly moderated by fear of self-compassion. Figure 2 shows that the association between rejection sensitivity and depressive symptoms became significant when fear of self-compassion $\geq 1.81$ and intensified as fear of self-compassion increased. Figure 3 shows that the direct association of rejection sensitivity with NSSI after adjusting depressive symptoms became significant when fear of self-compassion $\geq -.53$ and intensified as fear of self-compassion increased.

**Discussion**

NSSI, as well as the increased social evaluative concerns, is prevalent in adolescence. A great deal of research has indicated that rejection experiences in various domains increase youth risk of engaging in NSSI (e.g., Nock, Prinstein, & Sterba, 2009). Rejection sensitivity could be the risky trait that contributes to the links between social rejection and NSSI (e.g., Perini et al., 2019). With a sample of Chinese community adolescents, this study examined whether the relationship between rejection sensitivity and NSSI was mediated by depressive symptoms and moderated by fear of self-compassion.

We first evidenced that depressive symptoms partially accounted for the association between rejection sensitivity and NSSI. In adolescence, children exhibit increased

**Table 2. Results of the moderated mediation model**

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<th>$R^2$</th>
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<th>SE</th>
<th>$\beta$</th>
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Note. Bootstrapping sample size = 5,000. CI = 95% confidence interval; LL = low limit; UL = upper limit.
concerns about their social interaction with others, for example, parents, peers, and teachers. Such concerns may be more salient in the Chinese society, where interpersonal connectedness is highly valued (e.g., Lou & Li, 2017). In social interactions, rejection sensitive adolescents are afraid of being rejected and place high values on avoiding rejection or gaining understanding and acceptance. However, they also have automatic expectations that they will not be accepted, anxiously or angrily. These defensive cognitive-affective reactions may fuel their overly behavioural responses to others (e.g., social withdrawal or aggression). They are easy to experience interpersonal loss. Such loss per se is depressing and distressing and may be accompanied by the feelings of helplessness. It may also be interpreted as their own inability, representing as inward stressor (e.g., Liu, Kraines, Massing-Schaffer, & Alloy, 2014). These personal distresses over time turn into persistent depressive symptoms. In order to get rid of depressive feelings, NSSI is often used (Baumeister, 1990; Klonsky, 2007). However, in this study, we

Figure 2. The conditional effect of rejection sensitivity on depressive symptoms as linear function of fear of self-compassion. Note. CI = 95% confidence interval; LL = low limit; UL = upper limit. The horizontal dotted line represents the unstandardized effect of zero, and the vertical dotted line represents the transition value of fear of self-compassion, below which the conditional effect is insignificant.
did not assess adolescents’ anxiety. Given the high comorbidity between anxiety and depression and the robust association between rejection sensitivity and anxiety, the mediation of depressive symptoms could not be understood without caution.

The direct association between rejection sensitivity and NSSI remained significant after adjusting for the mediation of depressive symptoms. This finding is in line with previous studies (e.g., Baumkirchner, 2009), suggesting that the engagement in NSSI may serve other functions for rejection sensitive youth. At the intrapersonal end, to manage individuals’ anxiety, borderline personality symptoms, emotional pain, and feelings of self-defeating might be additional mechanisms underlying rejection sensitivity and NSSI (Bentley et al., 2015; Breines & Ayduk, 2015; Gao et al., 2017). More generally, it could be that ones’ inefficiency of emotion regulation is the key underlying factor (e.g., Franklin, Aaron, Arthur, Shorkey, & Prinstein, 2012; Groschwitz et al., 2016). At the interpersonal end, engaging in NSSI may also help sensitive youth prevent rejection, gain acceptance

Figure 3. The conditional direct effect of rejection sensitivity on NSSI as linear function of fear of self-compassion after adjusting for depressive symptoms. Note. CI = 95% confidence interval; LL = low limit; UL = upper limit. The horizontal dotted line represents the unstandardized effect of zero, and the vertical dotted line represents the transition value of fear of self-compassion, below which the conditional effect is insignificant.

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from others, or punish others. For example, NSSI per se or consequent wounds or scars may serve as the communicating signals with others (e.g., Bachtelle & Pepper, 2015). And, given the high co-occurrence of aggression and NSSI (O’Donnell, House, & Waterman, 2015), anger or hostile cognition resulted from rejection sensitivity may also be an interpersonal underlying mechanism. Taken together, coupled with previous studies (e.g., Perini et al., 2019; Peters et al., 2015), the present study highlights a great necessity to further uncover the association between rejection sensitivity and NSSI from both intra- and interpersonal ends at both behavioural and neural processing levels.

Despite the salient main effect of rejection sensitivity, it was found that fear of self-compassion substantially magnified the direct association between rejection sensitivity and NSSI and the indirect association through depressive symptoms. These findings could be interpreted from two aspects. First, fear of self-compassion per se is an indicator of negative self-relating. For individuals with rejection sensitivity, those who respond to self-compassion with strong fear and resistance may experience more intense self-related negative emotions (e.g., shame) or negative self-cognitions (e.g., inferiority) in or after rejection situations (Schoenleber, Berenbaum, & Motl, 2014). NSSI could be a kind of self-defeating behaviours to meet their needs of punishing the self (Taylor et al., 2017; Zelkowitz & Cole, 2018). Second, youth with fear of self-compassion may also have deficits in self-regulation, which may intensify the overall processing dynamics of high rejection sensitivity, from generating rejection expectations, to negatively encoding interpersonal cues, to generating negative thoughts and emotions, and to overreacting with withdrawal or hostility (Ayduk & Gyrak, 2008; Ayduk et al., 2000). Youth with both high rejection sensitivity and fear of self-compassion may easily experience feelings of frustration, alienation, loss, and distress. Progressively, some maladaptive emotional and behavioural outcomes, such as depressive symptoms and NSSI, may be likely to emerge.

Our findings should be interpreted in light of several limitations. First, the nature of cross-sectional design precludes the examination of the causal relationships between rejection sensitivity, depressive symptoms, fear of self-compassion, and NSSI (Winer et al., 2016). In this study, our presupposition was that engagement in NSSI may be resulted from the other three factors and other directions were not examined. For example, NSSI-induced stigma may also result in adolescents’ self-accusation and feelings of unworthy of others’ acceptance, making adolescents more sensitive to rejection. The limitation also makes the interpretation of our results being understood with caution. Future research is encouraged to dig into the longitudinal and dynamic associations between rejection sensitivity, depressive symptoms, and NSSI based on the rejection sensitivity model (Levy et al., 2001). Second, all information was obtained from adolescent self-reports, which may inflate the magnitude of associations due to shared method variance. Future work that includes multi-methods such as self-reports, others-reports, or interview method will benefit. Third, the measure of NSSI had a restricted frequency range (capped at more than five times), which perhaps precluded the discovery of the effects reliant on high severity of NSSI. For example, the difference on severity between adolescents having engaged in 12 incidences of self-cutting and those having engaged in six incidences could not be compared. And, the data of NSSI were obtained from retrospective report (i.e., in the past year), which limited the accuracy. Future research using some ecological assessment methods (e.g., daily diary recording) to assess the frequency and severity of participants’ NSSI would be more defensible (e.g., Nock et al., 2009). Finally, only community adolescents studying in Grades 7 and 8 were included, and participants in this study were all from an underdeveloped region of Southwest China. This may limit the generalizability of our findings.
Despite these limitations, this study has three notable implications. First, our findings suggest that focusing on adolescents’ rejection sensitivity could be a new and valuable direction in developing NSSI-related prevention and intervention programmes. NSSI is commonly a type of covert behaviours; screening youth high in rejection sensitivity may help educational agencies design and implement pointed programs that help to prevent NSSI. Also, cognitive intervention strategies targeting anxious or angry expectations of rejection and behavioural modification strategies targeting maladaptive behavioural reactions may pertinently help adolescents with NSSI experiences. Second, the partial mediation of depressive symptoms suggests that intervention against depressive symptoms may be beneficial for some adolescents in breaking the link between rejection sensitivity and NSSI. Last, adolescents’ fear of self-compassion should be paid attention to in dealing with NSSI. Fear of self-compassion itself is a significant risk factor for adolescent problem behaviours (Gilbert et al., 2012; Joeng et al., 2017; Xavier et al., 2016); it may also strengthen the risk effect of rejection sensitivity. Although previous studies have consistently affirmed the beneficial effects of enhancing self-compassion against depressive symptoms and NSSI (e.g., Jiang et al., 2017), efforts of targeting self-compassion may not function as expected if no attention is paid to the fear or resistance of showing self-compassion in some adolescents (Gilbert et al., 2011). In conclusion, targeting adolescent’s rejection sensitivity and fear of self-compassion is important for moving forward research to help adolescents with high risk for depressive symptoms and NSSI.

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J conceived the study, participated in its design, performed the statistical analysis, and drafted the manuscript; I participated in the design and coordination of the study; R helped in statistical analysis and drafted the manuscript; Y participated in the design and interpretation of the data and provided language help. All authors read and approved the final manuscript.

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Conflicts of interest

All authors declare no conflict of interest.

Author contribution

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The data that support the findings of this study are available from the corresponding author upon reasonable request.

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