A meta-analysis of the relationship between self-esteem and aggression among Chinese students ☆

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ABSTRACT

Whether high or low self-esteem is associated with increased aggression remains a topic of debate. The majority has argued that aggression is linked to low self-esteem, though this stance has been disputed by others. The present study aimed to explore the relationship between aggression and self-esteem by meta-analysis to provide conclusive evidence on this debate. Fifty-two studies were included, with a total of 82,358 Chinese student participants. The results suggested a medium negative correlation between aggression and self-esteem ($r = -.21$, 95% confidence interval $[-.23, -.17]$). Analysis of aggression sub-factors showed that almost all subtypes, except verbal aggression (i.e., physical aggression, anger, hostility, and implicit and explicit aggression), were negatively correlated with self-esteem. Moderator analyses suggested that various study and participant characteristics (i.e., subject group, sample size, and aggression assessment instrument) influenced the strength of the association between self-esteem and aggression.

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1. Introduction

Traditionally, low self-esteem has been associated with, among other things, negative outcomes, such as depression, anxiety, and anger, as well as aggressive and violent behaviors (Lee & Hankin, 2009; Verona, Patrick, & Lang, 2002). However, other researchers (Baumeister, Smart, & Boden, 1996) have doubted this assertion and insisted that aggression and violent behaviors result from high self-esteem. Various scholars have since studied the relationship between self-esteem and aggressive behaviors, and findings have varied widely (Bushman & Thomaes, 2011; Ni, 2005; Ostrowsky, 2010), and thus, whether high or low self-esteem is linked to aggression is a hotly debated topic. In recent years, many related studies have been conducted in China; some have found a close relationship between self-esteem and aggressive behaviors (e.g., Xin, Guo, & Chi, 2007), while others have shown a non-significant correlation (e.g., Wang & Zhang, 2011). However, no meta-analyses have systematically examined these quantitative studies on the relationship between self-esteem and aggression, particularly in Chinese research. In the current study, a meta-analysis was conducted on studies exploring the relationship between self-esteem and aggression among Chinese students, thereby evaluating the strength of the correlation between the two factors to provide evidence on whether low or high self-esteem is associated with aggression.

1.1. The relationship between self-esteem and aggression

Self-esteem refers to the self-assessment of one's social role, and has the potential to influence behavioral development (Baumeister, 1993; Rosenberg, 1965). Most researchers regard low self-esteem as the foundation of problem behaviors, including violence and aggression (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Robins, Donnellan, Widaman, & Conger, 2010; Sowislo & Orth, 2013; Trzesniewski et al., 2006; Webster, 2007). In an attempt to improve their self-esteem, individuals with low self-esteem may display aggression to avoid the humiliation and feelings of inferiority brought about by failure (Ostrowsky, 2010; Zapf & Einarsen, 2011). In their analysis of literature published between 1986 and 2006 on self-esteem and aggression, Walker and Bright (2009) showed a close negative relationship between the two factors. In addition, Donnellan et al. (2005) found a significant negative correlation ($r = -.30$) between self-esteem and self-reported aggression in a large sample of 3143 undergraduate students. Moreover, a study on Chinese adolescents found a significant negative relationship between self-esteem and aggression ($r = -0.21$; Xin et al., 2007).

However, Baumeister et al. (1996) expressed uncertainty regarding the negative association between self-esteem and aggression, pointing out that aggression might result from high self-esteem and narcissism. According to Baumeister and colleagues, individuals with high self-esteem are more adventurous and intrepid, thus increasing their likelihood of executing aggressive attacks. Compared to individuals with low self-esteem, those with high self-esteem tend to avert failure and, consequently, may resort to attacking others, generally choosing vulnerable groups. This further indicates that high self-esteem tends to be closely related to high aggression (Salmivalli, 2001). Hughes, Cavell, and Grossman (1997) have also found that highly aggressive children have ideal consciousness, and are much more "confident" to attack other children than are their non-aggressive counterparts. In addition, some researchers have found a direct relationship between narcissism and aggression (Baumeister, Bushman, & Campbell, 2000; Bushman et al.,

2009; Locke, 2009). In relation to this, Baumeister et al. (1996) proposed the *threatened egotism theory* to explain the effect of narcissism on aggression. When experiencing ego threats owing to their perception of an external threat, highly narcissistic individuals may reconfirm their self-esteem or punish the source of the threat. If others threaten their inflated egos, this unstable mode of self-affirmation may pose a threat to others or even result in aggressive displays by the narcissistic individual (Baumeister et al., 2000; Bushman & Baumeister, 1998; Bushman & Thomaes, 2011; Bushman et al., 2009).

Nonetheless, some researchers hold neutral attitudes about the relationship between aggression and self-esteem. For instance, Diamantopoulou, Rydell, and Henricsson (2008) discovered that both high self-esteem and low self-esteem are related to aggression in children using peer nomination, teacher evaluation, and self-report methods. A study examined the influence of narcissism on the relationship between self-esteem and aggression, ultimately finding a positive relationship between narcissism and self-esteem, but no correlation between aggression and self-esteem (Barry, Grafeman, Adler, & Pickard, 2007). Only narcissism, however, was significantly correlated with aggression. Furthermore, when controlling for narcissism, low self-esteem was actually associated with aggression (Barry et al., 2007). A longitudinal study by Ostrowsky (2009) found no relationship between low self-esteem and aggression among early adolescent boys and girls. However, the study found a close relationship between high self-esteem and aggressive behaviors among late adolescent girls (Ostrowsky, 2009).

There are major three viewpoints on the relation between self-esteem and aggression — positive, negative, and no relation. Each view is accompanied by feasible supportive theory. For instance, a link between low self-esteem and aggression could be explained by social association theory (Donnellan et al., 2005; Xin et al., 2007), high self-esteem could be associated with aggression in accordance with threatened egotism theory (Baumeister et al., 1996; Bushman et al., 2009), and if there is indeed no relationship between the two, other factors, such as narcissism (Barry et al., 2007), rather than self-esteem, might be related to aggression. In order to draw more general conclusions with regard to the Chinese literature, we aimed to investigate this relationship by meta-analysis.

1.2. Factors influencing the relationship between self-esteem and aggression

Studies among Chinese students that found a relationship between low self-esteem and aggressive behaviors typically adopted Rosenberg's definition of self-esteem as self-evaluation (Rosenberg, 1965). Thus, the Rosenberg Self-Esteem Scale (RSES) and the implicit association method (Greenwald & Farnham, 2000) were typically used to measure self-esteem in these studies. Few researchers have used Coopersmith's Self-Esteem Inventory (SEI; Coopersmith, 1981). The Buss–Perry Aggression Questionnaire (BPAQ; Buss & Perry, 1992) is predominantly used to measure aggression. The measure contains four sub-dimensions: physical aggression, verbal aggression, anger, and hostility. The Buss–Warren Aggression Questionnaire (BWAQ; Buss & Warren, 2000), which added indirect aggression as a sub-factor of aggression, has also been used to some extent. Instead of the traditional focus on aggressive displays, several other studies have focused on implicit aggression, which could also represent covert aggression (Bjorkqvist, Osterman, & Lagerspetz, 1994). In contrast, some studies have focused on aggressive behavior and other problem behaviors such as bullying. Generally, studies among Chinese students have found a significant negative correlation