Laughing or Increasing Tension?
An Experimental Study on How Teachers' Rude Language Use Affects Mental Stress of Middle School Students

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Abstract

Research Background: Formal language use is considered the paradigm in Chinese middle school education. However, the mental stress intensified by COVID-19 has led middle school students to seek new forms of relief in their daily lives. The popularity of rude language on campus suggests that this discouraged or disallowed behavior can help alleviate their mental stress. Teachers' language affects middle school students' feelings, if used strategically, rude language can relieve middle school students' mental stress.

Research Objectives: This study aims to explore the impact of rude language on the mental stress of middle school students. It hopes to provide a perspective for teachers to strategically use their language and relieve the mental stress of their students.

Research Methods: This study analyzes the influence of teachers' different rude language use on the mental stress of middle school students and was discussed by comparing the mental stress levels of different experimental and control groups. Students are all from Guangzhou, GBA.

Discussion: Effectiveness of rude language use according to the occasion, the gender of the teacher and the degree of rude language. Teachers' strategic rude language use can achieve a deeper sense of trust and affinity with students. It can also relieve the accumulated mental stress of middle school students.

Conclusion: Strategic rude language use has the potential to positively affect the relief of mental stress in middle school students and deserves attention in the fields of education and psychology. Additionally, the rude language used by female teachers is more likely to lead to disgust among middle school students.

Keywords: Swearing, Rude language, Teacher emotional support, Mental stress, Adolescence

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Introduction

Education, a crucial element for individual and societal development, serves to disseminate knowledge, foster learning, and stimulate innovation. Schools, particularly in China and East Asia, are the primary institutions where this education occurs. From the late Qing Dynasty through the founding of the People's Republic of China in 1949, and continuing with the reforms initiated in 1978, China's modern education system has evolved over more than a century (Tsang, 2000). Today, China boasts the world's largest modern education system. As the most populous developing country globally, China has made significant strides in educational development. The country's basic education system encompasses preschool, primary, secondary, and higher education. The "Compulsory Education Law of the People's Republic of China" (Congress N.P.S., 1986) mandates nine years of free compulsory education for all school-age children and adolescents. Emotional support from teachers plays a vital role in student success (Ruzek et al, 2016), with numerous studies (Cooper, 2014; Patrick, Ryan & Kaplan, 2007) demonstrating its positive impact on student motivation and engagement. This support can help students mitigate stress related to academics and interpersonal communication. With China's economy experiencing unprecedented growth and increased investment in education, the country aims to enhance domestic education quality (Guo, Huang & Zhang, 2019). While harsh and even rude teaching methods were once part of traditional Chinese education (Rao, 1996), schools are increasingly emphasizing teachers' emotional support for students. Consequently, gentler, and more formal language use is now considered a standard paradigm for teacher-student communication in middle schools.

Teachers support students in numerous ways, yet several studies have confirmed a strong correlation between school-related stress and students' psychosomatic symptoms or mental health issues (Schraml, Perski, Grossi & Simonsson-Sarnecki, 2011). Concurrently, with the evolution of modern education in China, an increasing number of psychological problems are being reported among students. The severity of psychosomatic symptoms and other mental health issues among adolescents is escalating. Educational stressors, particularly those related to academics, are progres-sively detrimental to students' physical and mental health (Högberg, Strandh & Hagquist, 2020). During the COVID-19 pandemic, infectious diseases have had a widespread psychological impact on the public. The pandemic's effect on adolescents, due to their stage of psychosomatic development, has been more significant than on adults in terms of crisis response. Amid irregular school closures and academic pressure, students face the fear of illness and are compelled to limit social interactions, leading to substantial psychological impacts. During the COVID-19 pandemic in China, over one-fifth of middle and high school students experienced mental health issues (Zhang et al, 2020), resulting in psychological effects such as low mood, anxiety, and poor sleep (Su et al, 2007; Huang & Zhao, 2020). Despite changes in China's epidemic policy since 2023 allowing schools to reopen and students to return, the impact

of school stress on middle school students has intensified over time (Högberg, Strandh & Hagquist, 2020). Given the general increase in psychological pressure, middle school students seek psychological or at least emotional relief. This is characterized by dynamic responses to specific phenomena and efforts to reduce or avoid the impact of stressors.

Coping with mental stress, regardless of its effectiveness, can lead to both short-term and long-term psychological consequences (Lazarus & Folkman, 1984). The primary methods for middle school students to alleviate stress are categorized into active and negative coping. Zhang et al.'s research (Zhang et al, 2020) on adolescent mental stress during the pandemic suggests that active coping styles serve as protective factors against anxiety, depression, and stress symptoms in middle school students. Conversely, negative coping styles pose risk factors for these symptoms. Under severe stress, individuals employ various methods to manage stress (Gayathri & Vimala, 2015). Venting, reported as a dynamic coping method, primarily involves directing dynamic, rude language at stressors such as school life, interpersonal interactions, and academic demands. Xuan's 2019 research (Xuan & Ma, 2022) indicates that 86.37% of middle school students in Guangzhou have used swear words. The use of rude language exemplifies an emotion-focused coping style, characterized by concentrating on a specific problem and expressing related feelings or experiences.

The use of rude language reflects a psychological state, serving to express emotions and foster group identity (Liu, 2011). However, such language is often perceived as a form of 'rebellion' or disrespect by society, schools, and families in mainland China, contradicting the norms of civilized behavior. While middle school students are encouraged to use more standardized language on campus, the prevalent use of swear words suggests that this discouraged behavior can help alleviate students' mental stress. The language used by teachers influences how middle school students think, feel, and act (Geng, 2017). This study investigates the role of strategic rude language use in reducing middle school students' mental stress. Using an experimental method, a group of residential middle school students in Guangzhou, GBA area, China were selected as subjects and divided into an experimental group and a control group. The experimental group received intervention in the form of rude language from teachers based on occasion, gender, and level of rudeness, while the control group did not. By comparing the mental stress levels of the different groups, this study explored the impact of varying degrees of teacher rudeness on middle school students' mental stress.

Materials and Methods

1. Research model

This study employs a quantitative research approach, utilizing a quasi-experimental design, and establishes the experimental and control groups through non-random composition (Fraenkel & Wallen, 2000; McMillan & Schumacher, 2010). A pre-test method will be implemented to ascertain if the mental stress levels of each group are comparable. If the levels are similar, one group will be designated as the experimental group for the intervention plan.

Figure 1. Research model
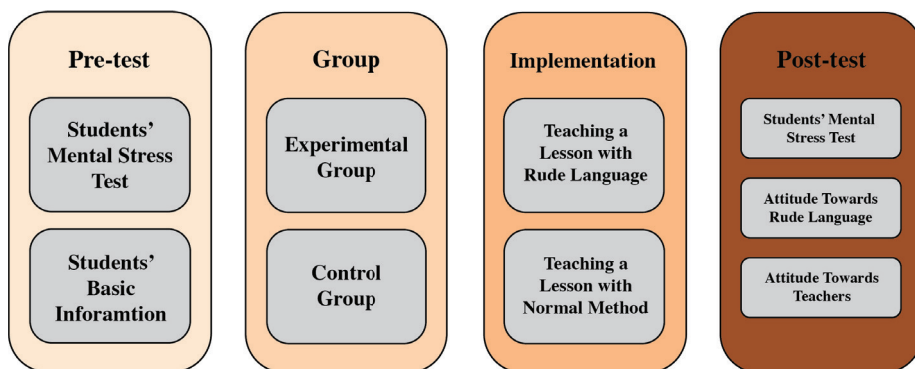
The participants, drawn from ninth-grade students at the Middle School Affiliated to Guangzhou University, were selected to ensure similar basic conditions in both groups. The study received approval from the High School Affiliated to Guangzhou University, and informed consent was obtained from all participants and their guardians.

2. Sampling

This study employed convenience sampling, a method that provides researchers with quick and easy access to a sample and facilitates large sample sizes (Dattalo, 2008). The final sample comprised 91 ninth-grade students who responded to both surveys. Of these, 39 (43%) were female and 52 (57%) were male.

Table 1. Research model

| Groups	Female	Male	Total
Experimental Group	20	24	44
Control Group	19	28	47
Total	39	52	91

Both groups participated in a specific introductory session where a teacher, unfamiliar to both groups, delivered a lesson from the ninth-grade curriculum. Teachers in

the experimental group incorporated rude language at specific times during their lessons, while those in the control group adhered to traditional teaching methods.

3. Research design

Swear words are specific, negative, and often emotive terms that are considered taboo in a particular language or culture, thus likely to cause offense (Fägersten, 2012; Fägersten, 2017; Fägersten, & Stapleton, 2017). In contemporary times, the identified swear words predominantly fall into one of three primary categories: religion, sex or sexual body parts, and terms related to bodily waste such as 'fuck', 'cock', and 'shit' (Hughes, 1998; Stapleton, 2010). Swearing in today's context assumes a "milder" form, with many words belonging to the sexual/excretory category and even becoming a modal particle, signifying a rude use of language. Numerous studies have indicated (Fägersten & Stapleton, 2017; Stapleton, 2010; Jay & Janschewitz, 2008) that although the use of rude language is often associated with negative emotions, in everyday life, most instances are not intended by the speaker to convey aggression or impoliteness, or even to project a negative mood. When employed in private settings, the use of rude language may connote camaraderie or solidarity, especially when the group faces adversity (Daly, Holmes, Newton & Stubbe, 2004; Baruch & Jenkins, 2007). A strong correlation exists between the use of rude language and emotional release. When such language is employed, both the speaker and the listener perceive it as emotionally powerful, implying that the use of rude language can induce emotional arousal (Stapleton, Fägersten, Stephens & Loveday, 2022) and foster emotional arousal. The use of rude language, which carries more emotional power, is viewed as a distinct outlet from normative language. In previous experiments, rude language has been demonstrated to significantly increase participants' pain tolerance, resulting in notable hypoalgesia (Stephens, Atkins & Kingston, 2009).

Figure 2. Research design
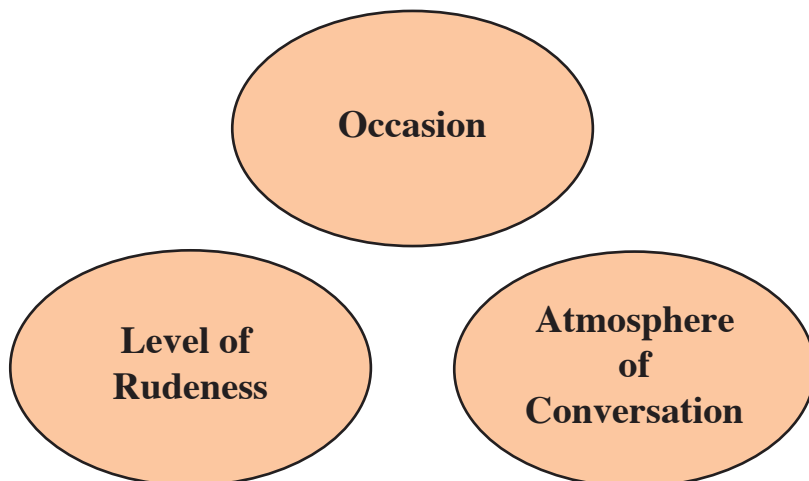
Therefore, in this experiment, teachers in the experimental group were instructed to employ specific rude language at a designated time and place, a strategic use of rude language. During self-study time, both the experimental and control groups will partake in a brief lesson lasting 8-12 minutes. This lesson will take place in the classroom, a setting that is more relaxed compared to standard courses such as Chinese, Mathematics, and Foreign Language classes. At this juncture, students typically have the autonomy to manage their own time. The location, being relatively private and difficult for non-class members to enter (as middle schools in Guangzhou usually restrict campus access to unrelated individuals), fosters a more relaxed atmosphere. A male teacher, who has not previously taught this class, will conduct the lessons for both groups. Within the span of 8-12 minutes, he will summarize the class's academic situation, analyze the academic goals, and motivate the students to strive for success in future examinations. Prior to the teacher's use of rude language, students from both groups were deeply engaged in a course relevant to them, received encouragement, and were in a heightened emotional state. During the encouragement session, teachers in the experimental group will use "Wo Kao", a term that in the Chinese context sounds similar to "Wo Cao" (Fuck) and is considered one of the most widely used rude languages in mainland China. However, compared to other rude languages, this "Wo Kao" term is softer. The control group will receive standard encouragement that does not involve any rude language.

This implies that the strategic use of rude language will satisfy at least the following conditions: Employ mild or softer rude language; Utilize it in a more relaxed group setting; Express positive emotions.

4. Data collection

The "GHQ-28 Scale" was utilized to assess the stress relief effects of teachers' rude language use in this study. Furthermore, semi-structured interviews were conducted to gauge middle school students' attitudes towards rude language and its use by teachers. All data collection instruments were deployed at the conclusion of the implementation period.

The GHQ-28 scale was utilized to assess anxiety, depression, and somatic symptoms (Goldberg & Hillier, 1979). Participants were prompted to reflect on their feelings over the past week and rate items on a scale from 1 (never or almost never) to 4 (most of the time). Anxiety symptoms were measured using items such as "Once I fall asleep, it is difficult for me to fall back asleep," and "My heart is beating faster than usual." The total scores ranged from 9 to 36, with higher scores indicating elevated levels of anxiety symptoms. Somatic symptoms were evaluated using items like "I have a feeling of tightness or pressure in my head," and "I feel really good and in good physical condition". The total scores for this category also ranged from 9 to 36, with higher scores indicating increased levels of somatic symptoms. Depressive symptoms were measured using items such as "I feel sad,"

and "Morning is when I feel my best". The total scores for depressive symptoms ranged from 17 to 68, with higher scores indicating a greater degree of depression.

Semi-structured interview is a prevalent data collection method in qualitative research, significantly influence the research outcomes due to the quality of the interview guide. The application of semi-structured interviews necessitates substantial prior research in the topic area (Barriball & While, 1994; Turner III & Hagstrom-Schmidt, 2022) as the interview questions are predicated on previous knowledge. This study employs semi-structured interviews to explore middle school students' perceptions of teachers' use of rude language. This approach has proven to be versatile and flexible, encouraging students to provide descriptive answers by initiating questions with "what", "who", "where", "when", or "how" (Chenail, 2011). In this study, the middle school students participating in the semi-structured interviews were members of the experimental group, having experienced teachers' strategic use of rude language.

Results

In this research, both descriptive and predictive analyses were conducted. Given that the sample sizes for both studies exceeded 50, the Kolmogorov-Smirnov test was employed (Drezner, Turel & Zerom, 2010). The mental stress experienced by students in both the pre-experiment test and experiment test was not statistically significant ($p>0.05$). This result led to the acceptance of the null hypothesis, which posits that the data is normally distributed. Thus, it can be inferred that the data from both experiments exhibit characteristics of normality. To ascertain differences between groups, an independent samples t-test was utilized in both experiments.

Table 2. Pre-experiment t test analysis results.

Mental Stress	Group (mean ± standard deviation)		t	p
	Experimental group (n=41)	Control group (n=49)		
	57.24 ± 14.27	59.10 ± 15.11	-0.596	0.553

*$p < 0.05$ **$p < 0.01$

As indicated in Table 2, the samples from various groups do not exhibit significant differences in mental stress ($p>0.05$). This suggests that all groups demonstrate consistent levels of mental stress, with no discernible differences. In the pre-experiment, no significant disparities in mental stress were observed among different groups. Therefore, it can be inferred that there is no significant difference in mental stress between the two groups of middle school students in the experiment prior to the commencement of the study.

Table 3. Experiment t test analysis results

Mental Stress	Group (mean ± standard deviation)		t	p
	Experimental group (n=41)	Control group (n=49)		
	53.98 ± 12.247	59.96 ± 15.461	-2.036	0.045*

*p < 0.05 **p < 0.01

Upon exposure to the teacher's strategic use of rude language, the group exhibited a significant level of mental stress at the 0.05 level (t=-2.036, p=0.045). A detailed comparison reveals that the mean value for the experimental group (53.98) is significantly lower than that of the control group (59.96). This indicates that there are significant differences in mental stress among samples from different groups.

Table 3. Experiment t test analysis results

Item	S^2pooled	Cohen's d
Mental Stress	195.988	0.427

Following the demonstration of a significant difference by the t-test (p<0.05), this study employed Effect Size to examine the extent of this difference. The magnitude of the effect size is denoted by Cohen's d value, with larger values indicating greater differences. When the t-test utilizes Cohen's d value to articulate the effect size, the thresholds for distinguishing between small, medium, and large effect sizes are set at 0.20, 0.50, and 0.80, respectively. In this research, it was found that the strategic use of rude language by teachers had an effect size nearing medium in terms of reducing mental stress among middle school students.

Discussion

The objective of this study is to ascertain the effects of teachers strategically use rude language to relieve students' mental stress, and to gauge students' attitudes towards such usage. It was observed that students in the experimental group exhibited superior performance in terms of mental stress management compared to those in the control group. This significant difference between the groups serves as evidence that strategic use of rude language by teachers can aid students in alleviating mental stress. Rude language is perceived to relieve stress and even vent emotions. In the post-pandemic era, middle school students continue to grapple with high academic pressure within the campus environment (Högberg, Strandh & Hagquist, 2020). The prevalence of rude language among middle school students underscores its potential to mitigate stress to a certain degree. When teachers strategically use rude language, considering factors such as location, conversational atmosphere, and level of rudeness, middle school students can experience emotional resonance, thereby facilitating the alleviation of mental stress.

The preliminary test revealed no significant disparities in the general health status of the two groups of middle school students. However, following exposure to teachers' strategic use of rude language, the experimental group of middle school students exhibited significantly lower levels of mental stress compared to their counterparts in the control group. These findings align with existing literature that has investigated the role of profanity (Fägersten, 2012; Hughes, 1998; Stapleton, 2010; Stapleton, Fägersten, Stephens & Loveday, 2022), including studies examining the impact of venting on mental distress. This study extends beyond by striving to minimize the negative emotional impact of swearing as much as possible, transforming it into rude language through the mitigation of rudeness, selection of suitable environments, and establishment of a positive conversational context. Semi-structured interviews with middle school students revealed that majority participants can distinguished between rude language and swearing. Concurrently, all interviewed students admitted to using swear words or rude language, and a majority reported encountering rude language in their surroundings (referring to both school and home environments):

"People around me have used bad words, (I mean) friends and some adults. Adults refer to some of my relatives, such as uncles and cousins. (My) parents would sometimes say it too, but they would apologize to me and tell me it was wrong to say bad words." (Code: 20230630EX-021)

Some students have reported that their perception of the prevalence of rude language in their surroundings is largely influenced by the media they consume. The media, encompassing both traditional forms (such as books, newspapers, songs, and cable TV) and new media (including short video platforms, live streaming software, and interactive TV), has served as a conduit for the propagation of swearing and rude language. Owing to their frequent usage, some swearing has become "conventionalized" and have thus gained widespread acceptance among the audience—in this case, middle school students (Bergen, 2016). Consequently, their intensity has been diminished. This includes language con-sumed through various devices such as smartphones, tablets, and computers. One interviewee noted that if a blogger who uses rude language gains popularity among middle school students, many individuals will emulate his/her manner of speaking, regardless of whether it involves swearing of rude language:

"Watch it on Douyin or WeChat... classmates will repost it, and then we will learn how to speak like them ... I just think it's fun." (Code: 20230630EX-032)

"Sometimes I don't know what the meme is, but I will learn it after hearing it from others (class-mates)." (Code: 20230630EX-002)

This study also investigated the variations in attitudes among middle school students towards the gender of individuals who use rude language. The findings from the interviews revealed that female middle school students exhibited a heightened aversion

towards males, particularly their male classmates, who used rude language. One female middle school student expressed her sentiments emphatically:

> *"Those boys who say dirty words are really disgusting. I can't accept them at all, especially those who make fun of us (girls). I really wish they would shut up." (Code: 20230630EX-018)*

The interview results revealed that most middle school students have witnessed men using rude language and perceive this behavior as "normal". Relevant research (Güvendir, 2015) suggests that swearing and rude language are often associated with rough and aggressive behaviors and are more commonly used by men. Certain studies have established a link between "masculinity" and swearing (Baruch & Jenkins, 2007; Downes, Kettle, O'Brien & Tait, 2021), with bravery and aggressive speech or actions viewed as indicators of leadership competition. Interestingly, research on group activities and teamwork has shown that the use of profanity within a group can lead to increased cohesion (Fägersten & Stapleton, 2017; Stapleton, Fägersten, Stephens & Loveday, 2022). Middle school students reported that they "expected" and had "previously observed" male teachers using rude language. However, the use of rude language by female teachers elicited clear concern among middle school students. Some students expressed the belief that if a female teacher resorts to using rude language, she must be extremely angry:

> *"I don't want female teachers swearing...I haven't seen that (female teachers swearing or use rude language), but if it happened, I think I would be scared. Why? Because I've never seen them do this. It must be in a very serious situation. At that time, I›d better shut up, and it's best that they (female teachers) don't swearing because of me." (Code: 20230630EX-033)*

One middle school student specifically stated that she did not want female teachers to use rude language because it would awaken memories of being scolded by her mother:

> *"I don't want that to happen (female teachers swearing or using rude language). Because that's what my mom would do...if I did something wrong. I like them (female teachers) very much, they can be strict, but I don't want them swearing." (Code: 20230630EX-018)*

Drawing from the interviews, this study pinpointed several primary concerns of middle school students regarding the use of rude language. These include painful memories, the level of rudeness, the context of usage, and the gender of the user. By integrating these concerns with the three elements of teachers' strategic use of rude language, we distilled them into six key factors that warrant attention:

Figure 3. Six factors of strategic rude language use.
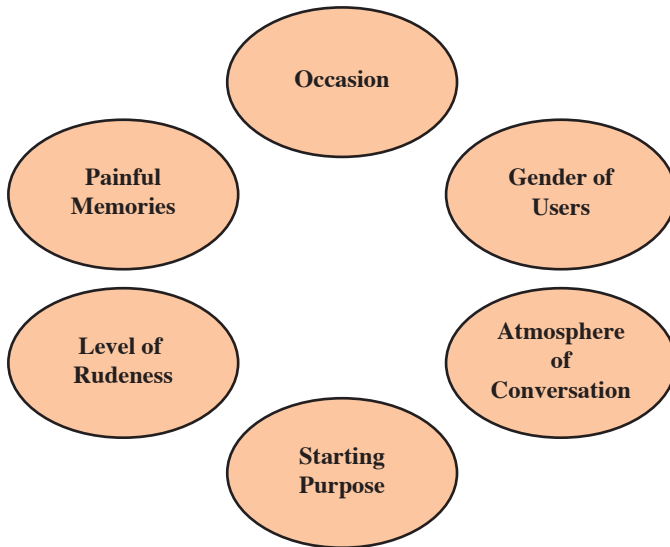
These six factors are: a) whether the occasion is appropriate; b) whether the conversation atmosphere is appropriate; c) whether the level of rudeness is appropriate; d) whether the starting purpose is positive; e) whether the student has painful memories; f) the gender of the user. In group situations with a relaxed atmosphere, male teachers using less rude language for positive purposes can help students with no painful memories reduce their psychological stress, while female teachers bear more of the students' worries.

Conclusions

The strategic use of rude language by teachers has been found to positively impact the reduction of accumulated mental stress among middle school students. In certain contexts, students tend to develop a deeper sense of trust and intimacy towards teachers who employ rude language. Teachers who are already trusted by students and strategically use rude language are more readily accepted. However, the reverse scenario may yield contrary results. Notably, the use of rude language by female teachers is more likely to incite worry and resentment among middle school students.

This study has its strengths and limitations. One such limitation is the subjective interpretations of middle school students regarding the distinction between rude lan-guage and swearing. Despite the study's efforts to differentiate between the two, some students do not perceive a difference, leading to a degree of ambiguity in their self-disclosures during interviews. Future research could address this ambiguity by incorporating questions about how middle school students interpret swearing or rude language, or by developing relevant measurement tools. This study also outlines strategies for mitigating

the negative emotions associated with rude language as much as possible through strategic deescalation and situational setting, using semi-structured interviews to explore students' reactions. However, dialogues are complex in nature. Most conversations are brief, making it challenging for teachers and researchers to conduct in-depth studies on the current psychological state of middle school students. This raises a pertinent question: How can teachers quickly ascertain the mental state of middle school students? This is particularly relevant in classes with larger student populations in the Greater Bay Area (for instance, middle schools in Guangzhou often have class sizes exceeding 40 students).

The primary strength of this study lies in its contribution to bridging a gap in the existing body of research. At present, studies on swearing, rude language, and venting—both domestically and internationally—tend to focus more on their medical im-plications (Trần, Szabó, Ward & Jose, 2023) and their effects on interpersonal relationships (Hughes, 1998; Stapleton, Fägersten, Stephens & Loveday, 2022). While swearing has been categorized as a significant misconduct on school campuses (Finn, 2017; Doherty, Berwick & McGregor, 2018), the recurring instances of swearing among middle school students are noteworthy and warrant the attention of future researchers. This is particularly relevant considering the sudden surge in mental stress among middle school students in the post-pandemic era. The findings of this study offer a reference perspective, suggesting that middle school students may derive benefits from the use of rude language and emotional venting. Consequently, this study holds considerable significance for research exploring the use of rude language as a strategy for reducing stress among middle school students. The results provide valuable insights for teachers in secondary schools and educational institutions on strategies to alleviate mental stress among students. By discussing the strategic use of rude language, teachers can equip students with an emotion-focused stress reduction strategy applicable in specific situations. Additionally, the research findings reveal that swearing—on campus and even in daily life, whether consciously or otherwise—has become a common occurrence among middle school students in the Greater Bay Area. Future research could delve into exploring the relationship between popularity, interpersonal relationships, and mental stress among middle school students. It could also investigate whether the use of rude language has become an epidemic phenomenon in schools and assess the latest impact of middle school students› use of rude language on interpersonal relationships.

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