

# The Effect of Child Psychological Abuse on College Students' Attitudes Toward Cyberbullying: The Mediating Role of Belief in a Fair World and Gratitude Traits

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**Abstract.** To explore the effects of child psychological maltreatment on college students' attitudes toward cyberbullying: the mediating roles of Just World Beliefs and Gratitude Trait. The Childhood Psychological Abuse Questionnaire, the Just World Beliefs Questionnaire, the Gratitude Scale, and the College Student Cyberbullying Attitudes Scale were used to investigate 1300 college students. Results: Fair World Beliefs and Trait Gratitude were found to be one of the mediating mechanisms through which childhood psychological maltreatment affected college students' attitudes toward cyberbullying.

**Keywords:** Childhood Psychological Abuse; College Students; Cyberbullying Attitudes; Fair World Beliefs; Gratitude Trait.

## 1. Formulation of the Issue

In recent years, due to the development of medical science and the progress of human civilization, childhood psychological maltreatment has gradually become a hot research issue in the field of mental health. Childhood psychological maltreatment refers to a series of inappropriate behaviors adopted by the caregiver to the child continuously and repeatedly, including five types of intimidating, degrading, interfering, indulging and neglecting the child, which cause great harm to the cognitive, emotional and behavioral development of the child. The study found that about 45.3% of college students suffered psychological abuse in childhood, and the loneliness and depression levels of these college students were significantly higher than those of the general college students, and were accompanied by social-emotional developmental deficits, poor peer relationships, and social difficulties. In addition, adolescents who suffered psychological abuse in childhood have impaired audio-visual function and impair the maturation and connectivity of the hippocampus, corpus callosum, anterior cingulate cortex, inferior frontal gyrus, and temporal lobe [1]. It is clear that childhood psychological abuse is harmful to an individual's physical and psychological development.

According to psychoanalytic theory, some of the non-adaptive behaviors or neuroses that individuals display in adulthood are related to the abuse they suffered in childhood, and these painful experiences and negative emotional experiences brought about by psychological abuse often cause individuals to develop intense neurotic anxiety, and individuals usually repress these painful experiences in their subconscious mind in order to alleviate this anxiety, which, however, can cause a conflict between the subconscious mind and the conscious mind. conflict between the subconscious and the conscious mind. In order to reconcile this conflict, the individual's internal psychological mechanism often regulates it by showing some negative compensations, which is manifested in some non-adaptive behaviors or neuroses. Therefore, the hostility and aggression toward others that individuals show in adulthood are related to the psychological abuse they suffered in childhood (e.g., prolonged neglect, cold shoulder, etc.), and it is difficult for these individuals to establish close friendships with others later on, and it is easy for them to show bullying and aggressive behaviors toward others. Relevant studies have shown that childhood psychological abuse is a significant predictor of college students' aggressive behaviors, and in today's rapid development of the Internet, college students' aggressive behaviors are mostly manifested in the form of cyberbullying (cyberbullying). Cyberbullying as a

generalized form of traditional aggression in the Internet, previous studies have not elucidated the relationship between them[2] . Therefore, based on psychoanalytic theory, this study deduces the hypothesis: Childhood psychological abuse has a direct effect on college students' cyberbullying, i.e., the more severe the childhood psychological abuse, the more individuals agree with cyberbullying.

Cyberbullying is an aggressive behavior in which cyber users use electronic communication to repeatedly harm individuals with low self-protection awareness. Cyberbullying causes long-lasting mental harm to individuals because of its repetitive, supra-temporal and strong diffusion characteristics, which is more serious than the harm caused by traditional aggressive behavior, because this kind of aggression occurs with the help of the network, so cyberbullying has also become a hotspot in the field of cyber deviant research. Cyber deviant behavior refers to the general term for a variety of negative behaviors that cannot adapt to normal online life or violate and damage the norms of online behavior produced by individuals in the process of using the Internet by virtue of the anonymity and convenience of the Internet[3] . According to the occurrence form and severity of network deviant behavior, it is divided into broad and narrow network deviant behavior, and broad network deviant behavior mainly includes network antisocial behavior, network criminal behavior, network hacking behavior, malicious irrigation, virtual rape, cyberbullying, etc.; narrow network deviant behavior includes network interaction deviation, network speech deviation, network pornography deviation, network use deviation, network deception behavior etc.[4] . Cyberbullying, as a typical broad-sense cyber deviant behavior, has brought serious obstacles to the normal study and life of college students due to its adverse consequences. It is found that the tools used by individuals to implement cyberbullying are mainly computers, tablets and cell phones, about 75% of adolescents have implemented cyberbullying against their peers, and 58.4% of college students have engaged in cyberbullying behavior. The emergence of cyberbullying behavior is also accompanied by the development of some adverse emotions, such as depression, social anxiety, and anger. In addition, cyberbullying is significantly correlated with some real-life deviant behaviors (e.g., suicidal behavior, Internet addiction, smoking, alcoholism, etc.).

As a cognitive factor, just world belief examines people's perception of justice from the internal factors of individuals, which has an important impact on the physical and mental development of college students. Implicit in the concept of just world belief is its influence on gratitude: others deserve to be rewarded for what they have given to them, and individuals should be grateful to others. The formation of just world beliefs is constrained by a variety of factors, such as family, social system and so on[5] . Among them, different types of family upbringing styles have different effects on just world beliefs. It is found that in warm and supportive parenting styles with positive feedback, family members are able to respect each other and treat each other fairly, and this favorable family atmosphere helps children perceive fairness and then have higher levels of just world beliefs[6] . On the other hand, apathetic parents and lack of warmth and caring will lead to the development of withdrawn and suspicious personalities in adolescents, which will lead to more questioning of the self and the outside world, and may result in a lower level of fair world beliefs. In addition, individuals gradually develop stable just world beliefs during their college years. Meanwhile, just world beliefs were found to be an important factor influencing college students' gratitude. According to the "Triadic Interaction Theory" of environment, behavior and cognition, fair world belief is an important mediating variable that transmits environmental influences to behavior, and the stronger the fair world belief is, the more the individual tends to comply with the principle of reciprocity in interpersonal interactions, the more the individual is able to show gratitude for the support and help of others, the more the individual's pro-social behaviors are, and the more the individual's cyberbullying behavior is reduced. bullying behavior[7] . Meanwhile, according to social cognitive theory, college students' cyberbullying behavior is related to just world beliefs and gratitude trait pushback. Just world belief, gratitude trait deferral is an individual's cognitive tendency, and this tendency is a self-protection mechanism, which cognitively rebuilds certain unjust behaviors (such as aggressive behaviors, bullying behaviors, etc.) into just behaviors through the psychological mechanism of the individual's intrinsic just world belief, gratitude trait deferral, in order to minimize the responsibility of the

consequences arising from such unjust behaviors and the suffering of the victim of identification with the victim. Therefore, the present study hypothesized that there is a significant negative correlation between childhood psychological abuse, college students' cyberbullying attitudes, and just world beliefs and trait gratitude.

As another positive psychological quality of an individual, gratitude refers to a psychological tendency to focus on and appreciate the positive aspects of life. Gratitude, as another important individual factor, is also closely related to aggressive behavior. The formation and development of gratitude is influenced by both family and individual factors. Parenting style as an important family factor has a significant impact on individual gratitude development. Among the individual factors, just world beliefs is the proximal influence variable of gratitude, and the two have a moderately significant positive correlation. The influential role on gratitude is embedded in the concept of just world beliefs. Therefore, this study hypothesized that: gratitude is positively correlated with just world beliefs; gratitude is negatively correlated with childhood psychological abuse and college students' cyberbullying attitudes; and gratitude mediates the effects of childhood psychological abuse and just world beliefs on college students' cyberbullying attitudes.

In summary, based on the perspectives of psychoanalytic theory and social cognitive theory, this study is proposed to be conducted with college students, aiming to examine the effects of child psychological maltreatment on college students' attitudes toward cyberbullying: the mediating roles of fair world beliefs and gratitude traits

## **2. Objects and Methods**

### **2.1. Objects of Study**

From May to July 2022, using stratified random whole cluster sampling method, stratified by disciplines, with faculties (departments) as the smallest sampling unit, six universities were selected in Shanxi Province, and two faculties (departments) were randomly selected in each university in the sophomore and junior years, and a total of 1,300 students enrolled in the selected faculties (departments) were surveyed as the target of the survey. A total of 1,278 questionnaires were collected, with a recovery rate of 98.31%, 1,198 valid questionnaires, and a validity rate of 92.15%.

### **2.2. Research Tools**

#### **2.2.1. Child Psychological Maltreatment Scale**

The Chinese version of the Childhood Trauma Questionnaire was used, which originated from The Childhood Trauma Questionnaire (The Childhood Trauma Questionnaire - Short Form; CTQ-SF) compiled by Albdour M [8] and other clinical psychologists in New York, U.S.A., and then translated into Chinese by Zhao Happiness and others in China. The scale consists of 28 items and contains 5 factors, namely, emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect with validity ratings of 10, 16 and 22. This questionnaire is rated on a 5-point scale with "1" indicating never, "2" indicating occasionally, "3" indicating sometimes, "4" means often, and "5" means always. Each factor of this scale ranges from 5 to 25 points, with higher scores on each factor indicating more severe abuse. This abuse questionnaire has good reliability and validity, and the Cronbach's coefficient for this scale in this study was 0.911.

#### **2.2.2. Just World Belief Scale**

The BeliefinaJustWorldScale (BJWS) questionnaire developed by Dalbert [9] (2009) was used. The questionnaire consists of two dimensions, personal just world beliefs (6 items) and general just world beliefs (7 items), and is scored on a 6-point scale (1 = "Strongly Disagree", 6 = "Strongly Agree"), with higher scores indicating a higher level of the subject's just world. The higher the score, the higher the level of belief. In this study, the Cronbach's coefficient of the questionnaire was 0.78.

### 2.2.3. Gratitude Scale

A revised gratitude questionnaire developed by McCullough[10] , Emmons and Tsang (2002) was used. The revised questionnaire consisted of 6 items and was rated on a 7-point Likert scale from "totally disagree" to "totally agree". The revised questionnaire consisted of 6 items, which were rated on a 7-point Likert scale from "completely disagree" to "completely agree". Items 3 and 6 were reverse scoring questions, and the average score of the six items was calculated after reverse scoring the reverse questions, with higher scores indicating a higher level of gratitude. In this study, the Cronbach's coefficient of the questionnaire is 0.71.

### 2.2.4. Cyberbullying Attitude Questionnaire

The Cyberbullying Attitude Scale, which was developed by Balci S [11] et al. in 2011, was revised to have a total of 12 items comprising three dimensions. These three dimensions are:cyber verbal bullying consists of a total of 5 items, hidden identity consists of a total of 2 items, and cyber forgery fraud consists of a total of 5 items. This questionnaire is scored on likert 5-point scale. It contains completely disagree - completely agree. Higher scores on each dimension indicate more supportive attitudes towards cyberbullying situations. The Cronbach's coefficient for this scale in this study was 0.914.

## 2.3. Data Processing

SPSS 23.0 and Mplus 8.1 were used to manage and analyze the data for correlation analysis, confidence analysis, validation factor analysis and structural equation modeling.

## 3. Results

### 3.1. Common Method Bias Test

Using Harman's one-factor test for exploratory factor analysis on 52 items of the four scales, nine factors with characteristic roots greater than 1 were extracted, and the first factor explanatory power was only 12.45%, which was smaller than the judgment standard of 40%. Validated factor analysis using a one-way model was also used, and the fit indicators were poor ( $\chi^2 /df = 10.76^*$ , CFI = 0.45, TLI = 0.43, SRMR = 0.120, RMSEA = 0.090). Therefore, common method bias was not tested in this study.

### 3.2. Correlation Analysis between Variables

In accordance with previous studies defining positive rates of psychological abuse, a mean score of  $\geq 1$  was designated as positive for psychological abuse, and a mean score of  $\geq 2$  was designated as significantly positive for psychological abuse. The positive psychological abuse group of college students in childhood in this sample totaled 380, accounting for 31.72% of the total number of students. The significant psychological abuse positive group totaled 53, accounting for 4.4% of the total. The results of the correlation analysis showed that the correlations between childhood psychological abuse, just world beliefs, trait gratitude, and college students' cyberbullying attitudes were all significant (see Table 1).

**Table 1.** Descriptive statistics and correlation matrix for each variable (n=1198)

variant	$\bar{x}$	S	1	2	3	4
1 Psychological abuse in childhood	0.83	0.54	1			
2 Just World Beliefs	4.08	0.82	-0.31**	1		
3 Trait Gratitude	4.15	0.85	-0.21**	0.43**	1	
4 Cyberbullying attitudes	1.86	0.66	0.40**	-0.31**	-0.31**	1

Note: \*\*P<0.01

### 3.3. Analysis of Intermediation Effects

Because childhood psychological abuse, just world beliefs, trait gratitude, and college students' attitudes toward cyberbullying are all latent variables, structural equation modeling is required. Among them, the observed variables of trait gratitude are scale items, and the observed variables of the remaining three latent variables are composed of subscales. First, the total effect model of childhood psychological abuse on college students' attitudes toward cyberbullying was established to test the total effect  $c$  and its significance. It was found that the total effect of childhood psychological abuse on college students' attitudes toward cyberbullying was 0.45, with a significant total effect coefficient ( $P < 0.001$ ) and a generally good fit for all fit indicators (see Table 2).

Structural equation modeling analysis showed that the fit indices were good (see Table 2). Among them, the path coefficient of childhood psychological abuse  $\rightarrow$  trait gratitude was not significant ( $P > 0.05$ ). Therefore, just-world beliefs and trait gratitude play a partial mediating role in the relationship between childhood psychological abuse and college students' attitudes toward cyberbullying, which consists of two paths: the separate mediating role of just-world beliefs and the chain mediating role of just-world beliefs-trait gratitude.

The 95% confidence intervals for the estimated path coefficients were replicated for 1000 samples. The results showed that the mediating effect consisted of two indirect effects: first, the standardized indirect effect 1 generated by the path of childhood psychological abuse  $\rightarrow$  just-world beliefs  $\rightarrow$  college students' cyberbullying attitudes, whose 95% confidence interval was (0.018, 0.057), did not contain 0, and had a mediating effect of 0.05, which accounted for 11.11% of the total effect; second, the standardized indirect effect 2 generated by the path of childhood psychological abuse  $\rightarrow$  just-world beliefs  $\rightarrow$  Trait Gratitude  $\rightarrow$  Cyberbullying Attitude pathway produced a standardized indirect effect 2 with a 95% confidence interval of (0.014, 0.073), not containing 0, and a mediation effect of 0.04, accounting for 11.11% of the total effect; first, a standardized indirect effect 1 produced by the pathway of Childhood Psychological Maltreatment  $\rightarrow$  Just World Beliefs  $\rightarrow$  College Student Attitudes toward Cyberbullying, with a 95% confidence interval of (0.018, 0.057), which did not contain 0, with a mediation effect of 0.05, accounting for 11.11% of the total effect; second, standardized indirect effect 2 generated by the pathway of childhood psychological abuse  $\rightarrow$  just-world beliefs  $\rightarrow$  trait gratitude  $\rightarrow$  cyberbullying attitudes, which had a 95% confidence interval of (0.014, 0.073), which did not contain 0, with a mediation effect of 0.04, accounting for 8.89% of the total effect.

**Table 2.** Total effects model and mediation model fit indices

mould	X <sup>2</sup>	df	CFI	TLI	SRMR	RMSEA
total effects model	144	13	0.96	0.94	0.042	0.088
brokering model	488.65	84	0.94	0.93	0.046	0.063

## 4. Discussion

### 4.1. Relationship between Childhood Psychological Abuse and College Students' Attitudes Toward Cyberbullying

This study examined the relationship between childhood psychological abuse and college students' cyberbullying attitudes. First, the results of the study showed that the positive group of childhood psychological abuse accounted for 31.72% of the total number of participants and that childhood psychological abuse had a significant positive predictive effect on college students' attitudes toward cyberbullying. The results of this study confirmed the important influential role played by childhood psychological abuse on college students' attitudes toward cyberbullying in the context of our culture.

## 4.2. Mediating Effects of Fair World Beliefs and Trait Gratitude

The results of the study validated the research hypothesis that childhood psychological maltreatment can influence college students' cyberbullying attitudes through the mediating role of just-world beliefs. In addition, it was found that just-world beliefs and trait gratitude played a chain mediating role between childhood psychological abuse and college students' cyberbullying attitudes. The stronger the fair world beliefs of college students, the more they agreed that others deserved to be rewarded for their efforts, which led to stronger gratitude motivation and thus reduced deviant behaviors. Trait gratitude was found to be significantly negatively associated with both externalizing and internalizing problem behaviors, i.e., adolescents with low levels of trait gratitude had more risky behaviors and fewer healthy behaviors, as well as more negative emotional experiences such as anxiety and depression and fewer positive emotional experiences. Individuals with high levels of trait gratitude were more likely to adopt adaptive coping strategies when facing stressful situations, including seeking social support and cognitive reappraisal to solve problems, as well as less likely to escape through maladaptive ways such as substance abuse and retaliate with aggressive behaviors after failure. Therefore, the results of the study validated the research hypotheses.

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