

Research on the Relationship between Self-Compassion and Sense of Gain among College Students with Hearing Impairments: The Mediating Role of Perceived Social Support and Positive Coping

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Abstract: To explore the relationship between self-compassion and sense of gain among college students with hearing impairments, as well as the mediating role of perceived social support and positive coping, this study adopted the Self-Compassion Scale (SCS), Sense of Gain Scale (SGS), Perceived Social Support Scale (PSSS), and Simple Coping Style Questionnaire (Positive Coping Subscale, SCSQ-PC) to investigate 332 college students with hearing impairments from regular higher education institutions. Additionally, SPSS and PROCESS software were used to conduct common method bias tests, correlation analysis, and mediation effect tests. The results indicated that self-compassion, sense of gain, perceived social support, and positive coping were positively correlated with each other pairwise. Furthermore, perceived social support and positive coping played a chain mediating role between self-compassion and sense of gain. Based on these findings, suggestions were proposed from three aspects: society should accelerate the improvement of the social security system for persons with disabilities; education should enhance the quality of education to cultivate individuals with integrated cognition and affect; and families should fully fulfill their fundamental functions.

Keywords: College students with hearing impairments; Self-compassion; Sense of gain; Perceived social support; Positive coping style

1. Introduction

Since the 21st century, the concept of "sense of gain" has gradually replaced "subjective well-being" as a research focus with distinct Chinese characteristics. The sense of gain is a comprehensive reflection of opportunities for participation, levels of acceptance, a sense of achievement, and satisfaction. It also represents an integrative positive affective experience rooted in the actual attainment of desired outcomes, encompassing feelings of contentment, joy, and fulfillment^[1]. However, current research on the sense of gain has primarily focused on political and ideological perspectives, with limited exploration of its connection to positive psychological traits.

Self-compassion refers to an individual's attitude of treating setbacks, difficulties, and adversities with tolerance and understanding while maintaining kindness and self-love. It encompasses three core components: self-kindness, common humanity, and mindfulness^[2]. Studies have shown that enhancing self-compassion can significantly promote young people's subjective well-being and effectively reduce the negative impact of adverse events on physical and mental health^[3]. Additionally, there is a strong correlation between adolescents' stressful life events and their level of self-compassion, with stressful events negatively predicting self-compassion^[4].

As the future backbone of the nation, college students' sense of gain is influenced by multiple factors during their growth, including the level of support they receive from family, friends, teachers, and others; the extent of compassion and care they experience; and their preferred positive coping styles when facing adversity. These factors, in turn, affect their physical and mental health and future development trends. Meanwhile, as societal understanding of persons with disabilities deepens, the psychological traits of this group have increasingly become a key focus for scholars across disciplines. Among them, college students with hearing impairments—representatives at the intersection of disability and student groups—hold particular significance. Understanding their unique psychological characteristics can provide positive impetus for the work of educators and social practitioners.

Thus, this study explores the relationship between self-compassion and sense of gain among college

students with hearing impairments, with perceived social support and positive coping serving as mediator variables. By examining the chain mediating role of perceived social support and positive coping between self-compassion and sense of gain, the study aims to elucidate the mechanism through which self-compassion influences sense of gain, thereby providing both theoretical and practical foundations for improving the sense of gain among this population.

2. Methods

2.1 Participants

This study employed a convenience sampling method to recruit college students with hearing impairments from regular higher education institutions. A total of 372 questionnaires were distributed, and 332 valid questionnaires were retained. All participants had hearing impairments without other co-occurring disabilities. Regarding the degree of hearing loss: 40.32% were mild, 27.42% were moderate, 15.32% were moderately severe, and 16.94% were severe. In terms of age of onset: 30.11% experienced hearing loss between 0–3 years old, and 40.59% between 4–6 years old. The sample comprised 207 male and 165 female participants; 218 were from urban areas, and 154 from rural areas; 121 were first-year students, 56 second-year, 125 third-year, and 70 fourth-year students.

2.2 Instruments

2.2.1 Sense of Gain Scale

Developed by Zhou Yonghong to assess the sense of gain among persons with disabilities, this scale consists of 4 dimensions: social security, self-worth, economic life, and interpersonal relationships, with a total of 23 items. It uses a 5-point Likert scoring system (1 = completely disagree, 5 = completely agree)^[5]. Cronbach's α coefficient: 0.95.

2.2.2 Self-Compassion Scale

Adapted from Neff's concept of "self-compassion" by Gong Huoliang et al. (1994), this scale is designed for adolescents in China. It comprises 12 items across 3 subscales: self-kindness, common humanity, and mindfulness, using a 5-point Likert scoring system (1 = never, 5 = always). Items 2, 4, 5, 8, and 11 are reverse-coded. Higher total scores indicate greater self-compassion^[6]. Cronbach's α coefficient: 0.80.

2.2.3 Perceived Social Support Scale

Developed by Yan Biaobin and Zheng Xue (2006), this scale measures perceived social support across 3 dimensions: family support, friend support, and support from others (classmates, relatives, teachers). It uses a 7-point Likert scoring system (1 = strongly disagree, 7 = strongly agree). Higher total scores reflect a greater level of perceived social support^[7]. Cronbach's α coefficient: 0.94.

2.2.4 Simple Coping Style Questionnaire (Positive Coping Subscale)

Developed by Xie Yaning et al., this questionnaire includes 12 items and uses a 4-point Likert scoring system (0 = never, 3 = often). Higher total scores indicate more frequent use of positive coping strategies^[8]. Cronbach's α coefficient for the positive coping subscale: 0.87.

2.3 Data Analysis Methods

Data were statistically analyzed using SPSS 26.0 and its macro program PROCESS.

3. Results

3.1 Common Method Bias Test

In this study, data were collected using a questionnaire survey method. During data collection, confidentiality and anonymity were emphasized, and different scoring methods were employed to pre-control common method bias. After data collection, common method analysis using Harman's single-factor test was performed: In this study, 13 factors had eigenvalues greater than 1, and the first factor explained 37.86% of the variance, which was below the critical threshold of 40%. Therefore,

common method bias in this study was not significant.

3.2 Descriptive Statistics of Study Variables and Correlation Analysis Between Variables

Table 1 presents the means, standard deviations, and Pearson correlation coefficients between each pair of variables for self-compassion, sense of gain, perceived social support, and positive coping. The results indicated that self-compassion had significant positive relationships with sense of gain, perceived social support, and positive coping; sense of gain had significant positive relationships with perceived social support and positive coping; and perceived social support had a significant positive relationship with positive coping (see Table 1).

Table 1: Correlation Analysis Results Among Variables (N=332)

	<i>M</i>	<i>SD</i>	1	2	3	4
1. Self-compassion	37.83	3.80	—			
2. Sense of gain	82.96	14.95	.333**	—		
3. Perceived social support	60.30	12.80	.329**	.880**	—	
4. Positive coping	35.14	5.76	.378**	.782**	.815**	—

3.3 Analysis of the Mediating Role of Perceived Social Support and Positive Coping

Using the PROCESS plugin in SPSS 26.0 software, a chain mediation model was constructed with self-compassion as the independent variable, perceived social support and positive coping as mediators, and sense of gain as the dependent variable. The four variables involved were included in the model. The chain mediating effects of self-compassion, perceived social support, positive coping, and sense of gain are presented in Table 2; the indirect effects of self-compassion on sense of gain through positive coping and perceived social support are shown in Table 3. The path coefficients of the mediation effects are illustrated in Figure 1.

Results from Tables 2 and 3 indicated that self-compassion had no direct effect on sense of gain. Further verification using the Bootstrap method with confidence intervals that did not include zero confirmed this. Additionally, since the direct effect of perceived social support on positive coping was significant, perceived social support and positive coping were found to fully mediate the relationship between self-compassion and sense of gain.

Table 2: Path Test with Perceived Social Support and Positive Coping as Chain Mediators

Effect path	Path coefficient	<i>SE</i>	<i>t</i>	LLCI	ULCI
Direct effect					
Self-compassion → Sense of gain	0.102	0.108	0.945	-0.110	0.315
Indirect effect					
Self-compassion → Perceived social support	1.106	0.175	6.322***	0.762	1.450
Perceived social support → Positive coping	0.349	0.015	23.382***	0.319	0.378
Positive coping → Sense of gain	0.479	0.116	4.119***	0.250	0.708
Self-compassion → Positive coping	0.187	0.050	3.726***	0.088	0.286
Perceived social support → Sense of gain	0.842	0.051	16.419***	0.741	0.943

Table 3 :Bootstrap Test with Perceived Social Support and Positive Coping as Chain Mediators

Indirect Effect Path	Path Coefficient	BootSE	Boot LLCI	Boot ULCI
Self-compassion → Perceived social support → Sense of gain	0.932	0.224	0.546	1.404
Self-compassion → Positive coping → Sense of gain	0.090	0.055	0.006	0.216
Self-compassion → Perceived social support → Positive coping → Sense of gain	0.185	0.061	0.074	0.314

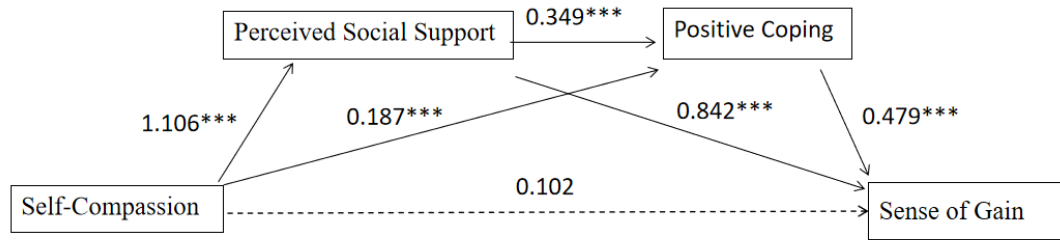


Figure 1. Path Coefficient Diagram of Perceived Social Support and Positive Coping Styles as Chain Mediators

4. Discussion

As one of the positive psychological traits, self-compassion helps individuals better understand themselves and view various life setbacks and difficulties more objectively. When combined with positive coping and social support, it can further enhance life satisfaction and happiness. Previous studies have found that self-compassion is positively correlated with positive responses but exerts a negative effect on negative response styles. Specifically, individuals with high self-compassion are more optimistic and kind to themselves, avoiding unnecessary regret and self-blame; instead, they opt for proactive coping strategies rather than passive ones[9]. Coping styles and social support significantly influence an individual's ability to deal with challenges. That is, individuals may respond differently based on the level of social support they perceive. Studies have shown that those who adopt positive coping styles tend to receive more social support and are less inclined to engage in negative responses such as avoidance^[10].

The results of this study indicate that perceived social support and positive coping play a chain-mediating role between self-compassion and sense of gain. Among college students with hearing impairments, higher self-compassion and perceived social support lead to a greater willingness to use positive coping strategies when addressing difficulties, thereby increasing their sense of gain. Existing research at home and abroad has demonstrated that coping styles and social support play critical regulatory and mediating roles in individuals' psychological stress management^[11]. Additionally, studies have found a strong correlation between college students' social support and their chosen coping strategies: the more social support students receive, the more likely they are to adopt proactive approaches^[12]. These findings suggest that when facing difficulties, college students with hearing impairments can effectively enhance their satisfaction and happiness by utilizing both perceived social support and positive coping strategies. This holds significant implications for promoting the psychological health development of college students with hearing impairments and other special student groups.

First, efforts should be made to accelerate the improvement of the social security service system for persons with disabilities, actively implement the principle of "early detection, early intervention, and early treatment," and strive to restore auditory capabilities for the hearing-impaired population. Further enhancing communication between college students with hearing impairments and the broader social group can help break down barriers to their social participation. Additionally, creating an inclusive environment, improving barrier-free facilities, and providing policy support are essential to fostering a peaceful and friendly societal atmosphere. This will offer college students with hearing impairments more opportunities to participate in social construction and contribute their strengths.

Second, education should place greater emphasis on cultivating students' comprehensive qualities, such as personality and abilities. More frequent use of appreciative education—identifying students' strengths, guiding them to learn from these strengths to compensate for weaknesses, and helping them recognize and utilize available support—can empower students to make better use of the assistance and resources at their disposal. Teachers should also prioritize creating a positive classroom atmosphere. By fostering good peer relationships and leveraging role models, students can derive a sense of love, belonging, and connection from their interactions. Meanwhile, schools should establish regular mental health check-up systems to promptly identify and guide students with unfavorable psychological tendencies. Encouraging college students with hearing impairments to seek counseling at school psychological service centers can provide a scientific platform for addressing issues, reducing self-blame and self-harm.

Lastly, families should fulfill their foundational role in the physical and mental development of college students with hearing impairments. Parents should actively accept their children's limitations,

refrain from overemphasizing physical disabilities, and instead focus on cultivating their children's character and abilities. Teaching children to view themselves and care for themselves correctly in the face of setbacks, as well as fostering a family ethos of harmony, kindness, and integrity, can provide both material and emotional support. Parents should respect their children's independence, value their thoughts, and ensure they feel the warmth and backing of the family. By modeling positive, gentle, and inclusive behaviors, parents can subtly shape their children's cognitive patterns.

Additionally, this study has some limitations that require improvement in future research. First, regarding participant selection, the number of second-year and fourth-year students was relatively small. Expanding the sample size in future studies would allow for more rigorous investigations. Second, this study examined the relationship between self-compassion and sense of gain solely from a path analysis perspective. Future research could incorporate additional variables and construct structural equation models to further explore this relationship. Finally, this study only investigated the mediating role of positive coping. Future studies may introduce negative coping to examine its role in the relationship between self-compassion and sense of gain.

5. Conclusions

The results indicated that self-compassion, sense of gain, perceived social support, and positive coping were positively correlated with each other. Additionally, perceived social support and positive coping played a chain-mediating role between self-compassion and sense of gain. Based on these findings, recommendations were proposed from three dimensions: (1) Society should accelerate the improvement of the social security system for persons with disabilities; (2) Education should enhance the quality of education to cultivate individuals with an integrated integration of knowledge and awareness; (3) Families should fully fulfill their foundational role.

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