

The Influencing Factors of Achievement-Oriented Content in Douyin Short Videos on Anxiety among University Students

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Abstract. In recent years, a large amount of achievement-oriented content on the Douyin platform has easily triggered social comparison upward among college students, giving rise to peer competitive pressure and exacerbating anxiety. Most existing studies only generally explore the correlation between overall short video usage and anxiety, lacking a unified explanation for the mechanism by which achievement-oriented content in short videos induces anxiety. Therefore, based on the theory of social comparison, this study conducts correlation analysis, regression analysis, and mediation effect tests by collecting questionnaire data from 150 college students. It explores how achievement-oriented content in Douyin short videos affects college students' anxiety. The results show that the more achievement-oriented content college students receive, the more severe their anxiety becomes. Among them, only achievement-oriented short video content is linearly correlated with anxiety, and upward social comparison plays a mediating role and positively affects anxiety levels. Therefore, achievement-oriented short video content can positively and directly trigger upward social comparison among college students and further induce anxiety.

Keywords: Achievement-Oriented Content, Upward Social Comparison, Anxiety

1. Introduction

In recent years, the mental health issues of Chinese college students have garnered significant attention. Among them, short video platforms such as Douyin have become the most frequently used media channels for college students. The penetration rate of short videos among Generation Z college students is as high as 98.2%, and college students spend an average of several hours per day using short videos. The duration is close to 180 minutes; multiple authoritative reports have confirmed that high-intensity, long-duration short video viewing is significantly positively correlated with increased anxiety and psychological stress among college students [1].

Meta-analysis studies have shown that excessive use of short videos is significantly positively correlated with anxiety levels among college students ($r=0.35$), indicating that short videos: The higher the intensity of use, the more pronounced the anxiety symptoms. However, existing research often starts from macro indicators such as overall duration of short video usage and addiction levels, broadly verifying their correlation with anxiety, and seldom focuses on the differentiated impact of specific content. The Douyin short video platform is filled with a large amount of achievement-

oriented content centered around high academic and professional achievements, physical attractiveness, and material success. Publishers also use filters, editing, and selective presentation to idealize and beautify themselves [2]. Social comparison theory suggests that individuals tend to evaluate themselves through comparison with others, and upward social comparison refers to the process where individuals compare themselves with others who are better, more successful, or perform better in relevant dimensions [3, 4]. Will college students' long-term focus on Douyin's achievement-oriented short videos directly trigger their upward social comparison? Will this psychological perception directly exacerbate their anxiety? Exploring these issues can help clarify the internal mechanism of achievement-oriented content on anxiety, and also provide empirical references for mental health intervention, media literacy education, and network content ecology optimization in universities. Provide empirical references for psychological health intervention, media literacy education, and network content ecology optimization.

This study investigates the factors influencing anxiety among college students when exposed to achievement-oriented content in Douyin short videos through a questionnaire survey. It aims to subject the social phenomenon of anxiety exacerbation due to social comparison among college students after viewing achievement-oriented content to objective data analysis.

2. Research methodology

2.1. Concept definition and research basis

2.1.1. Achievement-oriented content

Thompson et al. define achievement-oriented content as media content that showcases an individual's academic and career success. In the context of short videos, this type of content specifically refers to homogenized success narratives such as "quick success, high-paying internships, competition awards, and turning the tables" on the Douyin platform. Such content possesses three major characteristics: strong visual impact, short, flat, and fast narration, and high algorithm exposure [5]. By deliberately omitting the process of struggle and exaggerating the results of success, this type of content constructs an illusory path to success with "low input and high return," and has become a frequently encountered information type for college students. The duration of exposure, frequency of viewing, and content proportion are core indicators for measuring the degree of media exposure [6].

2.1.2. Upward social comparison

Festinger's social comparison theory points out that individuals have an innate need to evaluate themselves through comparison with others [3]. Gibbons and Buunk define upward social comparison as the psychological process in which individuals actively compare themselves with others who have superior abilities, resources, and developmental status [4]. The core of this concept is the perception of the gap between the self and the superior others. In the context of social media, existing related research mainly focuses on four major directions: comparison motivation, comparison targets, comparison dimensions, and comparison effects. In terms of measurement dimensions, scales include four major dimensions: ability comparison, achievement comparison, appearance comparison, and life status comparison, using a 5-point scoring system to assess the frequency and intensity of comparison [7, 8]. In the Douyin scenario, college students often use the platform's "high-quality peers" as a reference, engaging in upward social comparison in dimensions

such as academic progress, internship quality, and award achievements, thereby generating a sense of self-discrepancy [9].

2.1.3. Anxiety among college students

Spielberger divides anxiety into trait anxiety (a stable personality tendency) and state anxiety (a transient negative emotion triggered by a situation). Anxiety among college students is mostly state anxiety induced by academic and employment pressures [10].

Based on the mature peer comparison scale and related empirical research, this study divides state anxiety in the context of short videos into two independent emotional paths, decomposing it into two sub-dimensions: self-anxiety state and peer competition pressure [11]. The self-anxiety state refers to individuals' self-doubt and concern about their own academic achievements and development prospects, corresponding to negative self-evaluation at the intrinsic cognitive level of anxiety [12]. Peer competition pressure specifically refers to the sense of disparity and competitive urgency formed when comparing oneself with peers in the context of short video peer reference, which is an external reference-based anxiety induced by upward social comparison [13].

2.2. Research design and hypotheses

This study adopts a questionnaire survey method, with achievement-oriented content as the independent variable. It measures the viewing frequency, duration of exposure, and content proportion of achievement-sharing Douyin short videos that college students come across, actively browse, and stay to watch, focusing on topics such as academic success, internship and employment, award-winning growth, and successful turnarounds. The mediating variable is upward social comparison, measuring the psychological behavior of college students unconsciously benchmarking and comparing their current status, abilities, and development progress with the excellent peers in the videos after encountering high-quality achievement content. The dependent variable is anxiety, measuring the two dimensions of self-anxiety state and peer competition pressure level that college students experience after completing self-comparison. In summary, this study constructs a mediation effect model, as shown in Figure 1.

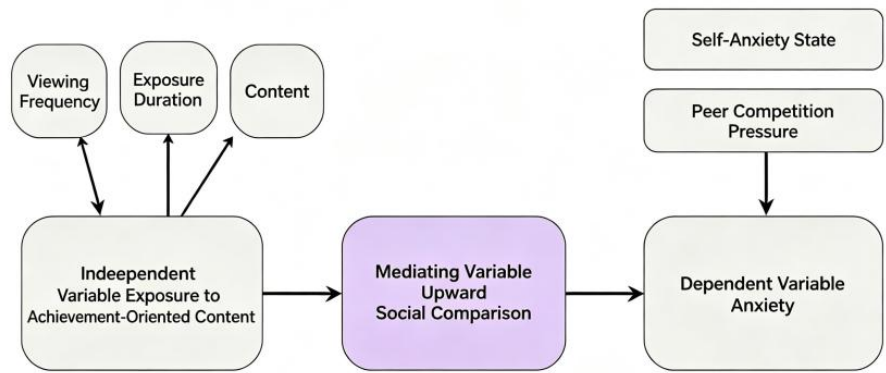


Figure 1. Mediating effect model of the present study

In the model constructed in this study, achievement-oriented content exposure can either directly and positively exacerbate college students' anxiety or induce their upward social comparison mentality first. This, in turn, will amplify the individual's internal self-anxiety state and intensify

external peer competition pressure, jointly pushing up the final anxiety level through these two paths.

Based on the aforementioned research, the hypothesis of this study is proposed:

H1: There is a significant positive correlation between exposure to achievement-oriented content and anxiety, with viewing frequency, duration of exposure, and content all showing a significant positive correlation with anxiety.

H2: Upward social comparison plays a mediating role between achievement-oriented content and anxiety.

All items in this study adopt the Likert 5-point scoring system, with 1 indicating "completely disagree", 2 indicating "somewhat disagree", 3 indicating "neutral", 4 indicating "somewhat agree", and 5 indicating "completely agree". A higher score represents a stronger degree of correspondence. This study takes college students nationwide as the research subjects, collects 150 valid questionnaires, and conducts reliability and validity tests. With the help of AMOS software, confirmatory factor analysis is completed.

The overall Cronbach's α of the scale is 0.902; the α of the independent variable, achievement orientation content is 0.880; the α of the mediating variable, upward social comparison, is 0.859, and the two dimensions of the dependent variable: self-anxiety state $\alpha=0.785$, peer competitive pressure $\alpha=0.832$. All dimensional α coefficients are higher than the standard value of 0.7, indicating that the overall questionnaire of this study has good internal consistency within each dimension, meets the reliability standard, and the survey data is stable and reliable.

3. Research results

3.1. Correlation analysis

Firstly, a correlation analysis was conducted on all core variables in this study, with a total sample size of N=150. The results are presented in Table 1.

The Pearson correlation analysis method is employed to examine the strength, direction (positive or negative), and significance level of the simple linear association between any pair of continuous variables.

Table 1. Pearson correlation analysis

	Average	Standard Deviation		Self- Anxiety State	Peer Competition Pressure	Content Type	Duration Of Contact	Viewing Frequency
Social Comparison	3.516	0.789	Pearson correlation Sig. (double- tailed)					
Self-Anxiety State	3.242	0.932	Pearson correlation Sig. (two- tailed)	1				

Table 1. (continued)

Peer Competition Pressure	3.216	0.954	Pearson correlation	0.794***	1			
			Sig. (double-tailed)	0.000				
Content Type	3.451	0.955	Pearson correlation	0.318***	0.387***	1		
			Sig. (double-tailed)	0.000	0.000			
Duration Of Contact	3.210	1.015	Pearson correlation	0.176*	0.251**	0.693***	1	
			Sig. (double-tailed)	0.031	0.002	0.000		
Viewing Frequency	3.287	1.131	Pearson correlation	0.205*	0.270***	0.581***	0.532***	1
			Sig. (two-tailed)	0.012	0.001	0.000	0.000	

The results of the correlation analysis indicate a significant positive correlation between all dimensions of short video exposure and anxiety-related variables among college students, preliminarily verifying research hypothesis H1. Specifically, in the relationship between short video exposure and self-anxiety state, content type, exposure duration, and viewing frequency all show a significant positive correlation, with correlation coefficients of 0.318 (<0.001), 0.176 ($p<0.05$), and 0.205 ($p<0.05$), respectively. In the relationship between short video exposure and peer competitive pressure, content type, exposure duration, and viewing frequency also exhibit a significant positive correlation, with correlation coefficients of 0.387 (<0.001), 0.251 ($p<0.01$), and 0.270 ($p<0.001$), respectively. This proves that H1 is valid.

3.2. Regression analysis

Table 2. Linear regression analysis results (n=150)

	Non-standardization coefficient	standardized coefficient		t	p	LLCI	ULCI	VIF
	B	Standard error	Beta					
constant	2.1943	0.2875		7.6320	0.0000	1.6260	2.7625	
content	0.3468	0.1129	0.3554	3.0707	0.0025	0.1236	0.5700	2.1880
Duration of contact	-0.0885	0.1021	-0.0964	-0.8666	0.3876	-0.2903	0.1133	2.0194

Table 2. (continued)

Viewing frequency	0.0411	0.0812	0.0499	0.5060	0.6136	-0.1194	0.2017	1.5867
R-squared				0.1061				
Adjusted R-squared				0.0878				
F				F(3,150)=5.7788,p=0.0009				
D-W				1.8977				
dependent variable				Self-anxiety state				

Table 3. Linear regression analysis results (n=150)

	Non-standardization coefficient		standardized coefficient		t	p	LLCI	ULCI	VIF
	B	Standard error	Beta						
constant	1.8555	0.2862		6.4841	0.0000	1.2900	2.4211		
content	0.3767	0.1124	0.3773	3.3509	0.0010	0.1545	0.5989	2.1880	
Duration of contact	-0.0489	0.1016	-0.0520	-0.4810	0.6312	-0.2497	0.1520	2.0194	
Viewing frequency	0.0660	0.0809	0.0783	0.8163	0.4156	-0.0938	0.2258	1.5867	
R-squared			0.1540						
Adjusted R-squared			0.1366						
F			F(3,150)=8.8589,p=0.0000						
D-W			1.8950						
dependent variable			Peer competition pressure						

As shown in Table 2 and Table 3, the results of linear regression analysis indicate a significant differentiation in the linear association between the independent variable, exposure to achievement-oriented content, and the dependent variables, self-anxiety and peer competitive pressure. Specifically, there is a significant positive linear relationship between content and both self-anxiety ($B=0.3468$, $Beta=0.3554$, $p<0.01$) and peer competitive pressure ($B=0.3767$, $Beta=0.3773$, $p<0.01$). After controlling for exposure duration and viewing frequency, content still exerts a stable positive influence on self-anxiety.

However, there was no significant linear correlation between duration of exposure, frequency of viewing, and self-anxiety state as well as peer competitive pressure ($p=0.3876$ for duration of exposure and $p=0.6136$ for frequency of viewing in the dimension of self-anxiety; $p=0.6312$ for duration of exposure and $p=0.4156$ for frequency of viewing in the dimension of peer competitive pressure, all p values > 0.05). The root cause of this result lies in the fact that the relationship between the frequency of viewing, duration of exposure, and anxiety is not a monotonous linear one. There exists a critical threshold effect, and significant correlations can only be observed by introducing quadratic terms and threshold models into the research [14]. At the same time, anxiety is also influenced by variables such as usage scenarios, real-world pressures, and media literacy. When examining the correlation between usage frequency, duration of exposure, and anxiety separately,

the related effects of duration of exposure and frequency of viewing are diluted by confounding variables, making it difficult to present a stable and significant linear relationship [15].

3.3. Mediation effect test

This study uses social comparison as a mediating variable to examine the mechanism by which content, duration of exposure, and frequency of viewing influence self-anxiety state and peer competitive pressure. The results are statistically significant with $p < 0.05$, $p < 0.01$, and $p < 0.001$.

Firstly, the dependent variable is self-anxiety state. The mediating effects of content, contact duration, and viewing frequency are 0.161***, 0.114***, and 0.059***, respectively, with all mediating confidence intervals excluding 0, and the direct effects are not significant. Social comparison fully mediates between the three factors and self-anxiety state.

Secondly, the dependent variable is peer competitive pressure. The mediation effects of content and viewing frequency are 0.172*** and 0.065***, respectively, with both mediation and direct effects being significant, and social comparison playing a partial mediating role. The mediation effect of contact duration is 0.123***, with only the mediation effect being significant, and social comparison playing a fully mediating role.

In summary, social comparison exhibits a significant mediating effect in all paths between the three types of independent variables and the two types of dependent variables, thus supporting the validity of hypothesis H2.

4. Results and discussion

Research has confirmed that the content of achievement-oriented short videos can directly trigger individuals to engage in upward social comparison, which in turn can induce negative psychological states. This conclusion revises the previous one-sided perception that longer usage of short videos leads to greater psychological anxiety.

At the individual level, considering the viewpoint of Verduyn et al. that social media content with positive biases erodes self-cognition [16]. It can be observed that the root cause of negative psychological perceptions among college students does not lie in the act of using short video media itself, but rather in the successful narrative content constructed by platforms through filtering, beautification, and idealization. Therefore, in their daily media usage, college students should abandon superficial adjustment methods that merely control the duration of short video usage, establish rational and objective self-evaluation standards, fully recognize the one-sidedness and performativeness of the highlight narratives in short videos, reduce horizontal upward social comparisons based on virtual success models on the internet, avoid self-denial and competitive anxiety triggered by excessive peer comparison, and cultivate healthy internet usage habits and psychological cognitive systems.

From the perspective of platform governance, the mediating effect of upward social comparison in this study fully demonstrates that biased achievement narratives can have a negative impact on the psychology of young people without requiring long-term, high-frequency exposure. This phenomenon confirms the alienating effect of the online pseudo-environment on individual self-cognition. Short video platforms should assume primary responsibility for content governance, optimize algorithm recommendation mechanisms and content review standards, weaken the dissemination of utilitarian and one-sided inspirational content such as "quick success" and "painless struggle", enrich diverse and authentic narratives of struggle, restore the process of accumulation

and setbacks behind success, correct the singularized aesthetic of success, and reduce the possibility of passive upward social comparison among college students from the source.

From the perspective of higher education, based on the core mechanism of social comparison theory, the emergence of negative emotions in individuals stems from the imbalance of external reference standards. Mental health education in universities should break through the traditional single mode of emotional counseling and advance psychological intervention to the stage of cognitive shaping. Universities can carry out special media literacy education in combination with the characteristics of the new media environment, guide students to recognize the characteristics of short video content, master the ability to discern biased online narratives, and simultaneously carry out targeted social comparison cognitive intervention to help students establish a stable and objective self-evaluation system, enhance their psychological resilience in dealing with negative online information, effectively alleviate peer competition anxiety and psychological internal friction among college students in the new media environment, and improve the network mental health education system in universities in the new era.

5. Conclusion

The key trigger that induces self-anxiety among college students and even peer competition pressure is not the length and frequency of short video usage, but rather the beautified, filtered, and reconstructed successful narrative content on the platform. Idealized depictions of successful personalities and one-sided highlights of striving scenes are the core sources of self-cognitive biases among young people.

The results of the mediation effect test further confirm that upward social comparison plays a fully mediating role between short video exposure characteristics and college students' anxiety and peer competitive pressure. Achievement-oriented short videos trigger the psychological process of upward social comparison in individuals, causing them to experience self-discrepancy and negative self-evaluation after referencing high-quality online models, ultimately leading to self-anxiety and peer competitive pressure. Based on this, this paper suggests that Douyin should optimize its algorithms and content orientation, enrich diverse and authentic growth content, and weaken the single idealized narrative of success; universities should strengthen the construction of media literacy and mental health courses to correct students' irrational cognition of upward comparison; college students should actively establish a personalized growth evaluation system, rationally distinguish between online fictional personas and real life, and work together to alleviate the self-anxiety and peer competitive pressure triggered by short videos.

This study still has certain limitations: it utilizes cross-sectional data for analysis, making it difficult to accurately infer long-term causal relationships between variables. Future research could further verify the dynamic impact mechanism of variables through longitudinal tracking studies.

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