

Research on the Influencing Factors and Countermeasures of the Formation of "Clique" in College Students' Dormitory Based on Binary Logistic Analysis

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Abstract. Dealing with dormitory interpersonal relationships is a complex problem of college life. The emergence of "clique" phenomenon has become one of the most important reasons for the intensification of contradictions and the formation of lousy dormitory interpersonal relationships. To explore the cause and solutions to this phenomenon, this paper conducted a questionnaire survey on the students majoring in economics and management in colleges in Wuhan, established a binary logistic regression model, and obtained the influencing factors and degree of the "clique" phenomenon by using the stepwise regression method. The top three influencing factors are interests, personal living and learning. Finally, suggestions are given from two aspects of individuals and schools, which will help eliminate this phenomenon and promote the construction of harmonious dormitories for college students.

Keywords: clique · interpersonal relationship · binary logistic analysis · SPSS

1 Introduction

Interpersonal relationships are an essential part of college students' campus life. Dormitory interpersonal relationships are one of the most essential links to college student's life [1], which is of great significance to college student's life, learning and interpersonal communication. In recent years, dormitory interpersonal relationship presents the characteristics of complexity and diversification, and the contradictions caused by bad interpersonal relationships are increasing day by day, among which the problems caused by the existence of dormitory "clique" are more common.

Clique mainly refers to an interest group formed by some members of the dormitory due to some common interests, personality characteristics, values, hometown relations and common interest relations [2]. The emergence of dormitory "clique" formed by various objective factors gradually weakened the centripetal force of a particular collective. When there are dormitory contradictions, "clique" will have the phenomenon of "consistent external", which will eventually lead to the deterioration of dormitory contradictions, which is not conducive to the solution of bedroom contradictions [3].

Therefore, it is vital for college students to form a good dormitory interpersonal relationship and grow up healthily by exploring the causes of the phenomenon and putting forward countermeasures to eliminate the harmful effects of the "clique" phenomenon.

2 Research Framework

2.1 Theoretical Basis

Some scholars have studied the definition and causes of dormitory "clique". Chen Damin [2] thought that it mainly refers to the interest group formed by some dormitory members due to common interests, hobbies, character characteristics, values, relations with fellow villagers and common interests. Through empirical research, Ma Hui and other scholars [4] have concluded that the existence of differences in living habits and values among college students will lead to the emergence of "cliques", which will eventually lead to the expansion of conflicts. Yang Hongxia [5] once studied the causes of bad interpersonal relationships between female college students' dormitories, among which "clique" has the worst impact, and the differences in personality, interest and economic conditions will promote the emergence of "clique". In addition, Sun's [6] theoretical investigations have shown that differences in academic performance can lead to jealousy and indifference, leading to "cliques" in dormitories.

2.2 Establishment of the Model

The dependent variable studied in this paper is the existence of the "clique" phenomenon, which belongs to a typical binary classification variable. Therefore, the binary logistic regression model is selected to determine the influencing factors and degree of the formation of "clique" phenomenon in college students' dormitories. The general form of model are as follows:

$$F(t) = \frac{1}{1 + e^{-t}} = p. (1)$$

t is the linear combination of x_1, x_2, \ldots, x_i , which is expressed as:

$$t = \alpha_1 x_1 + \alpha_2 x_2 + \dots + \alpha_i x_i + \beta. \tag{2}$$

By transforming (1) and (2), the logistic model expressed in occurrence ratio is obtained as follows:

$$ln\frac{p}{1-p} = \alpha_1 x_1 + \alpha_2 x_2 + \dots + \alpha_i x_i + \beta.$$
 (3)

 x_i is the explanatory variable, which is the collection of influencing factors affecting the formation of "clique", α_i is the regression coefficient and p is the probability of the existence of "clique".

2.3 Research Methods

There is a lot of information about the phenomenon of dormitory "cliques" on the Internet, but very little practical communication. Therefore, this study adopted a questionnaire survey to explore the influencing factors of this phenomenon. The overall questionnaire includes three parts: the first part is the basic information, the second part is the influencing factors of dormitory "clique" phenomenon, and the third part is the current dormitory "clique" phenomenon.

Based on the above theoretical framework, eight factors affecting the "clique" phenomenon are summarized as follows: learning situation, interest relationship, interests and hobbies, family economic conditions, roommate personality, regional factors, personal living habits and prejudice transmission. The design was carried out in the form of Likert scale, which set five answers, which were recorded as 5, 4, 3, 2 and 1 respectively. In this study, the higher the score, the higher the satisfaction.

The quality of the questionnaire also needs to be controlled to ensure the validity of the data. Invalid questionnaires completed by the respondents due to various reasons need to be eliminated. The elimination rules are set:

- Set the question with the specified answer. If the respondent chooses other options, it will be judged as an invalid questionnaire.
- Check the IP address. Remove the questionnaire data with duplicate IP addresses to prevent inaccurate results caused by repeated filling by respondents.
- Check the filling time of the questionnaire. If the time taken by the respondents to fill in the questionnaire is too short, it indicates that the selection of options is superficial, which will also lead to the inaccuracy of the results, so it needs to be eliminated.

3 Result Analysis

3.1 Sample Characteristics

The research adopts the questionnaire survey method. In order to ensure the reliability of the research results, the economic and management students in colleges and universities in Wuhan are selected. In the form of the questionnaire survey, 190 questionnaires are distributed, 188 questionnaires are recovered, 16 invalid questionnaires and the remaining 172 valid questionnaires. The sample characteristics after quality controls are shown in Table 1.

The subjects included 68 males and 104 females, most of whom were sophomores and junior students. In terms of the option of whether there is "clique" phenomenon in the dormitory, "clique" phenomenon accounts for 35.47%. It can be seen from the data that the existing rate of "clique" phenomenon in the dormitory of economics and management specialty is high.

3.2 Analysis of Regression Results

Use SPSS 23.0 software to carry out binary logistic regression on the sample useful data. From the goodness of fit test of the model, the two types of R-squared are greater than 0.7, indicating that the integrity of fit of the model is excellent (Table 2).

Index	Classification	Frequency	Proportion	
Gender	male	68	39.53%	
	female	104	60.47%	
Grade	Freshman	7 4.07%		
	Sophomore	72	41.86%	
	Junior	72	41.86%	
	Senior	21	12.21%	
Number of dormitories	3	6	3.49%	
	4	144	83.72%	
	5	10	5.81%	
	6	12	6.98%	
Is there a "clique"	Yes	61	35.47%	
	No	111	64.53%	

Table 1. Characteristics of Survey Samples

Table 2. Goodness of Fit

LR	Cox-Snell R ²	Nagelkerke R ²
174.155	0.782	0.851

The regression adopts the stepwise regression method, which is a method to select the optimal quantum set. According to the significance test, only one variable is assigned to enter the equation at each step to ensure that the regression equation contains only explanatory variables that have a significant impact on the explained variables. In order to obtain the factors that affect the generation of "clique" phenomenon, the value of p is used as the information criterion to screen the independent variable. When p is less than 0.05, it is considered that the variable is significant to the generation of "clique" phenomenon. Otherwise, the variable is eliminated.

The results of stepwise regression are shown in Table 3.

It can be seen from the table that the factors that have a significant impact on the emergence of "clique" phenomenon are: learning situation, interests, roommate personality, personal living habits and prejudice transmission, while interest relationship, family economic conditions and regional factors have no significant impact on it. Among them, the factors that have the most significant impact on the "clique" phenomenon are interests and hobbies, followed by learning and personal living habits. The regression coefficients are positive, which means that these factors are positively correlated with the emergence of "clique" phenomenon. Under the same other conditions, the greater the differences in interests, learning and personal living habits of members in the same dormitory, the easier it is to cause the phenomenon of "clique".

	В	S.E	Wald	df	Sig.	Exp (B)
x1	0.681	0.152	20.073	1	0.028	1.976
x3	0.823	0.221	13.868	1	0.001	2.277
x5	0.181	0.116	2.435	1	0.037	1.198
x7	0.735	0.092	63.826	1	0.002	2.085
x8	0.169	0.051	10.981	1	0.025	1.184
constant	-3.482	1.1	10.020	1	0.04	0.031

Table 3. Results of stepwise Regression

4 Conclusions and Suggestions

Through questionnaire survey and regression analysis, this paper explores eight factors affecting the formation of "clique" phenomenon, such as learning situation, interest relationship, interests and hobbies. From the perspectives of students and schools, suggestions on how to eliminate or reduce the existence of "clique" phenomenon in dormitories and build a good interpersonal relationship in dormitories are put forward.

4.1 Strengthen Self-cultivation and Improve Personality

In social communication, personal knowledge and self-restraint directly affect the effectiveness of communication. Therefore, college students should pay attention to the cultivation of personality and the expansion of connotation, from appearance to a conversation, image to knowledge, and comprehensively enhance their interpersonal charm. College students constantly strengthen their self-cultivation and improving their personality is a necessary link to deal with interpersonal relationships. College students should learn how to treat people correctly, treat people sincerely, put themselves in others' shoes and eliminate estrangement. At the same time, they should avoid psychological imbalance or jealousy caused by others' advantages. They should look at things with an inclusive and balanced psychological state to establish a good dormitory interpersonal relationship.

4.2 Adjust State of Mind, Seek Common Ground While Shelving Differences

Because most of the roommates come from varying regions, under the influence of different living environments, family backgrounds, education and other factors. Their personality characteristics, values and behavior habits are different. Therefore, in the process of getting along, it is inevitable to be closer to people with many similar factors, and alienate from people with relatively large differences in all aspects, so as to unconsciously form the phenomenon of dormitory "clique". As a member of the dormitory, they should straighten out their mentality, take the initiative to enter, understand and integrate into the dormitory family, and get along with roommates with different personalities for a long time. Achieve harmony, seek common ground while reserving differences, and maintain a harmonious relationship between roommates.

4.3 Strengthen Communication and Master Interpersonal Skills

Interpersonal communication is a process of mutual communication. The construction of harmonious dormitory interpersonal relationships and the elimination of the negative influence of dormitory "clique" also depends on good interpersonal skills. First, be good at listening, which is the premise of pleasing others, understanding and communication; Secondly, they should be good at expression in order to strengthen communication and enhance friendship; The last is to treat people sincerely, sincerely to accept roommates and consider their feelings. College students should actively communicate with their roommates to improve mutual understanding, especially roommates that have significant differences between themselves or have few communication opportunities. They should pay more attention to the establishment of friendly relations and enhance the overall emotion of the dormitory.

4.4 Pay Attention to the Construction of Dormitory Culture and Create a Good Dormitory Cultural Atmosphere

Dormitory culture construction is an essential part of campus culture construction. Strengthening the construction of dormitory culture can fully mobilize the enthusiasm for roommates, enhance the innovation and cohesion of roommates, which is of great benefit to the establishment of a good dormitory relationship. At present, the cultural construction of most college dormitories is only limited to rigid rules and regulations, sanitary standards and so on, lacking attention to dormitory team spirit.

Therefore, to carry out the wide variety of related cultural activities in dormitories, such as dormitories Culture Festival, dormitories fun games and so on. While helping guide students to establish a correct value orientation, it will eliminate the opposing state and negative emotions of dormitory emotion caused by the phenomenon of dormitory "clique", form a positive dormitory solidarity spirit, and enhance the cohesion between dormitory roommates, so as to promote the continuous improvement on the whole dormitory culture.

4.5 Improve Dormitory Management Mode and Strengthen System Construction

In student management, the responsibility of dormitory managers is significant. On the one hand, the school should select people who love students' work and have a strong sense of responsibility as dormitory management, and regularly train them, so as to master specific working methods and mental health knowledge. At the same time, counselors and class tutors should often go deep into students' dormitories, timely understand the situation of students' dormitories, pay more attention to the "clique" phenomenon or contradiction in the dormitory relationship, and guide it through communication, psychological counseling and other ways. On the other hand, relevant management departments should strengthen service awareness and weaken management awareness. At the same time, through school education and guidance, the dormitory can establish corresponding management system, which can not only cultivate students' good living habits, but also make each other more sincerely accept roommates in the process of supervision through constraints, so as to effectively prevent and reduce the occurrence of dormitory "clique".

4.6 Actively Carry Out Psychological Counseling

The school should make reasonable use of campus media, propaganda board and other channels to popularize the common sense of dealing with dormitory interpersonal relationship problems to college students. Students can understand how to get along with roommates harmoniously and avoid the phenomenon of dormitory "clique". At the same time, by offering mental health education courses, lectures, mental health knowledge competitions and other forms, students can further mobilize their initiative to understand and practice, overcome personality and cognitive barriers in dormitory interpersonal communication, and establish a good self-awareness, accurate self-positioning, conscious self-management.

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