A Survey on the Awareness of the 12345 Government Service Hotline among College Students in Beijing

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ABSTRACT

How to improve the satisfaction of government service management is a key concern and solution in current society. The article is based on questionnaire survey data of college students from 15 universities in Beijing regarding their awareness of the 12345 hotline. The structural equation model is used to analyze the factors influencing satisfaction and Probit model on awareness. The research results indicate that college students' satisfaction with the 12345 hotline is significantly influenced by their awareness. On this basis, it is proposed to strengthen the public service concept of the 12345 hotline for college students; Strengthen publicity and guide college students to use the 12345 hotline reasonably; Optimize the construction of the hotline and improve the satisfaction of college students in Beijing with the 12345 hotline.

KEYWORDS: 12345 government service hotline; Awareness; Satisfaction structural equation model; Probit model

1. INTRODUCTION

The report of the 20th National Congress of the Communist Party of China pointed out that we must adhere to ensuring and improving people's livelihoods in development, and focus on solving the urgent and difficult problems that the people are looking forward to. As a low-cost and efficient convenient channel for the people, the 12345 government hotline has attracted more and more attention and usage from the public. It has also become one of the new models of public service and social management for the government to listen to the voices of the people, understand public opinion, and solve popular problems. Improving the satisfaction of the 12345 government service hotline is the core task of this survey. Domestic scholars' research on the 12345 hotline mainly focuses on the system structure, role, and suggestions for the development of the hotline, while most of the research on policy awareness is focused on the agricultural field. The suggestions on government hotlines and policy awareness in existing literature are of great significance for the development of the country, but research on the 12345 hotline mainly focuses on optimization and improvement. There is relatively little research on citizens' awareness of the 12345 hotline, and there is relatively little research on the group of college students.

Therefore, this survey aims to understand the real situation of Beijing university students' understanding of the 12345 government service hotline, help them effectively use the 12345 government service hotline, enhance their awareness and satisfaction with the 12345 hotline, and provide more reference for the promotion and future development direction of the 12345 government service hotline.

2. Questionnaire design and survey object structure

2.1. Survey questionnaire design

This article mainly focuses on the research of undergraduate students in universities in Beijing, using a multi-stage sampling method and divided into two stages. In the first stage, stratified sampling was used to select 2 universities of 985 project, 4

universities of 211 project, and 9 ordinary universities from 68 universities in Beijing (excluding vocational colleges) based on their different attributes. In the second stage, uniform sampling is used, and the optimal sample size obtained is distributed to the universities sampled in the first stage.

The survey questionnaire consists of six parts: population screening, usage, cognitive status, satisfaction survey, suggestions, and basic information of the respondents. The cognitive situation section includes two parts: self-awareness and actual cognition. The self-awareness section is composed of a five level scale based on the user's self understanding of the 12345 hotline, including those who know and have not used it and those who know and have used it. In the actual cognition section, 10 test items were set to test whether the respondents had any bias in their self-awareness towards the 12345 hotline based on actual questions. The satisfaction survey section was designed as a five level scale for individuals who know and have used the 12345 hotline.

To ensure the scientificity and rationality of the questionnaire, a pre-survey is conducted to test the reliability and validity of the questionnaire before the formal questionnaire is distributed. The questionnaire is adjusted and modified to better measure the influencing factors of Beijing university students' cognition of the 12345 hotline and construct a reliable and effective scale. The results showed that the reliability and validity of both the self cognition scale and the satisfaction scale were tested, indicating that the content of this questionnaire survey is feasible and reasonable.

2.2. Basic information and descriptive statistical analysis of the survey questionnaire

After slightly adjusting the questionnaire questions in the pre-survey, a formal questionnaire was obtained and distributed. A total of 1004 questionnaires were collected, and 942 valid questionnaires were collected, with a recovery rate of 93.8%. The distribution of survey subjects in terms of gender and grade was relatively uniform; From the perspective of professional types, there are certain differences in the number of users among different majors, but the overall trend of user numbers is consistent with the number of students in the major. From the perspective of usage, there is not a significant difference in sample size between college students who have used the 12345 hotline and those who have not.

Table 1 Basic Information of College Students

basic feature	classification	proportion	quantity
gender	Boy	47.66%	449
	Girl	52.34%	493
grade	Freshman	26.54%	250
	Sophomore	25.16%	237
	Junior	24.42%	230
	Senior and above	23.89%	225
Major type	Engineering course	16.45%	155
	Science	35.14%	331
	Humanities	24.20%	228
	Social sciences	15.82%	149
	Medicine	8.39%	79
usage	Used	55.41%	522
	Unused	44.59%	420

3. Analysis of 12345 Hotline Usage Behavior

Through further analysis of the respondents' feedback channels, usage frequency, usage purpose, and understanding channels, the current usage status is as follows: (1) Feedback channels are mainly through phone 12345; (2) Tends to choose channels that are convenient, fast, and efficient in solving problems; (3) The number of times 12345 government service hotline has been used in the past three years is relatively low; (4) The average number of calls is relatively low, and the connection situation is good; (5) The purpose of use is mainly focused on consulting information; (6) College students choose 12345 and prioritize whether the problem can be effectively solved; (7) Focusing on traditional electronic media as a means of understanding; (8) Not used mainly because I have not encountered situations where I need to make a call; (9) Most college students who have not used the 12345 hotline also have lower usage of other platforms.

4. Analysis of influencing factors of college students' satisfaction with 12345 citizen hotline

4.1. 12345 Hotline satisfaction is mainly affected by awareness -- based on structural equation model

Based on the premise that policy perception will affect satisfaction, this part starts with satisfaction and looks for the factors that may affect satisfaction. Firstly, the correlation test is used to study the influencing factors of satisfaction, and then the structural equation model is used to study the influence of awareness on satisfaction and the influence path.

4.1.1. Correlation analysis

Correlation analysis is a statistical analysis method to study the strength of the relationship between variables, usually using correlation coefficient to describe the direction and degree of correlation between variables. For unordered categorical variables, Chi-square test is generally used to test the correlation between variables.

In this paper, Pearson Chi-square test was used to explore the relationship between gender, grade, major, self-awareness and satisfaction.

Table 2 Results of Chi-square test on gender and satisfaction

	Pearson chi-square progressive significance (bilateral)
Gender and satisfaction	0.175
Grade and satisfaction	0.005
major and satisfaction	0.031
awareness and satisfaction	0.000

The Chi-square test result of gender and satisfaction is 0.175, greater than 0.05, and the null hypothesis is accepted. Therefore, there is no significant correlation between gender and satisfaction. The Chi-square test result of grade and satisfaction is 0.005, less than 0.05, with a significant difference, rejecting the null hypothesis. Therefore, there is a certain correlation between grade and satisfaction. The Chi-square test result of major and satisfaction is 0.031, less than 0.05, with a significant difference, rejecting the null hypothesis. Therefore, there is a certain correlation between major and satisfaction. The Chi-square test results of self-awareness and satisfaction is 0.000, less than 0.05, with a significant difference, rejecting the null hypothesis. Therefore, there is a certain correlation between self-awareness and satisfaction.

4.1.2. Result analysis

This part uses correlation test to study the influencing factors of satisfaction, and finds that there is a certain correlation between grade, major, self-awareness and satisfaction. Grade and major are objective influencing factors, and it is impossible to change the grade and major of college students to improve their satisfaction with 12345 citizen hotline. Therefore, the structural equation model will be chosen in the following to specifically study the relationship between awareness and satisfaction.

4.2. Self-awareness and satisfaction have good construct reliability

Confirmatory factor analysis is the first step of integrated structural equation analysis, the main purpose of which is to check the fit of the proposed factor structure model with the actual data. Before the overall structural equation analysis, the measurement model of each latent variable in the theoretical framework should be optimized and revised first.

Therefore, before using structural equation model to study the relationship between self-awareness and satisfaction, this paper takes self-awareness as independent variable and satisfaction as dependent variable to construct confirmatory factor analysis.

Table 3 Reliability test of confirmatory factor analysis model

Latent variable	Observed variable	Factor loading	Measurement error	Composite reliability (CR)	Average variance extraction (AVE)
Self-awareness	Acceptance channel	0.809	-	0.898	0.638
	Working hours	0.851	0.05		
	Business process	0.819	0.049		
	Business scope and acceptance	0.834	0.047		
	Inadmissible items	0.686	0.055		

	The staff has good communication skills	0.856		0.949	0.698
satisfaction	The staff is patient	0.848	0.038		
	The staff is skilled in business	0.827	0.039		
	The staff is always online	0.812	0.043		
	Know exactly how long it takes to solve problems	0.78	0.046		
	Feedback or completion of matters in a timely manner	0.841	0.039		
	Feedback requests can be effectively addressed	0.862	0.041		
	Able to meet basic needs	0.866	0.04		

The composite reliability (CR) and average variance extraction (AVE) of the model are shown in Table 3. The results of confirmatory factor analysis for the two scales of self-awareness and satisfaction showed that the composite reliability of self-awareness was 0.898 and that of satisfaction was 0.949, both higher than 0.7, indicating that self-awareness and satisfaction have good construct reliability and the intrinsic quality of the model is good. The results show that the average variance extraction of self-awareness is 0.638 and the composite reliability of satisfaction is 0.698, indicating that the intrinsic quality of the model is good. Therefore, structural equation model can be used to study the relationship between self-awareness and satisfaction.

4.3. Improving self-awareness of the hotline can improve satisfaction
4.3.1. Introduction to the Model
Structural equation model is a kind of empirical analysis model. By finding the internal structural relationship between variables, it can verify whether the assumptions of a certain structural relationship or model are reasonable and whether the model is correct. If there are problems in the model, it can point out how to modify it. Structural equation model market research community can be applied to a variety of research, such as: satisfaction research, brand research, product research and so on. Therefore, in order to explore the influence of self-awareness on satisfaction and the influence path, structural equation model will be used to construct and revise the model.

Based on the above preliminary exploration of influencing factors and relevant scholars' research on influencing factors of satisfaction, this paper makes the following hypothesis H1: Self-awareness has a positive impact on satisfaction, and uses self-awareness as an exogenous latent variable and satisfaction as an endogenous latent variable to establish a structural equation model. Amos software will be used to identify the model, and the final model and fitting parameters will be obtained after modification. The specific path diagram is shown in Figure 1.
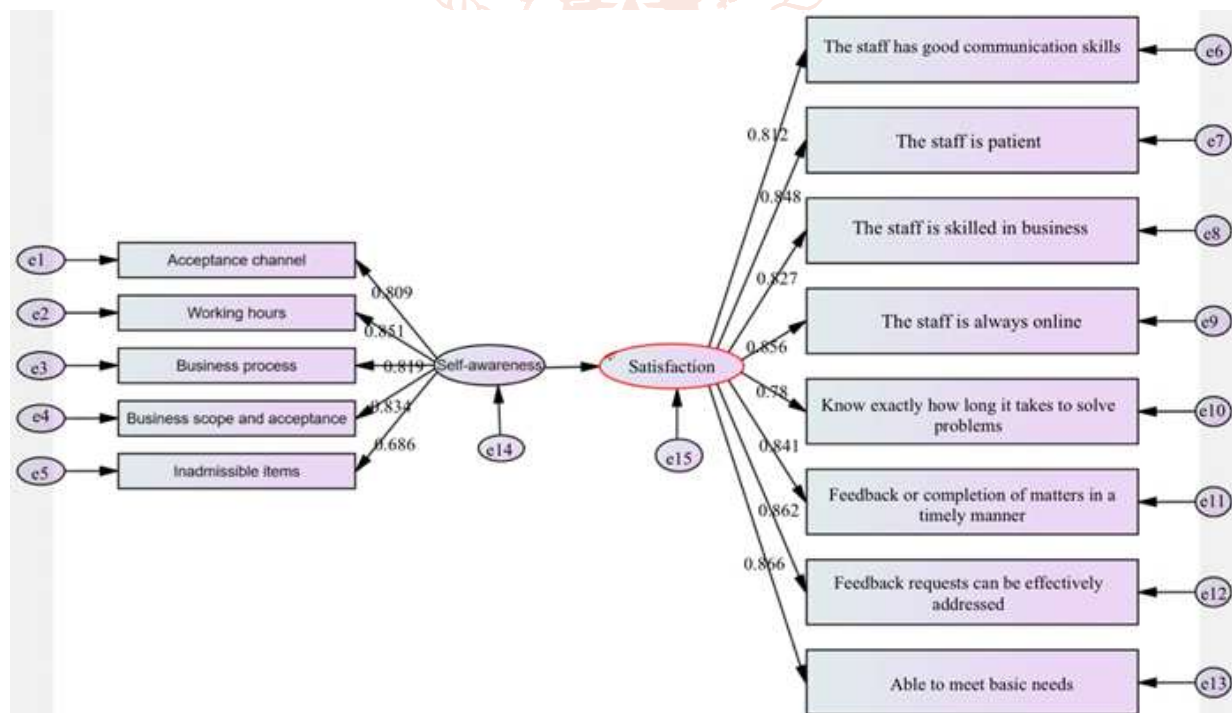

Figure. 1 Structural equation model diagram

4.3.2. Model fitting

In this paper, absolute fit index and relative fit index are selected to evaluate the model. The commonly used absolute fit indexes include Chi-square freedom ratio (χ^2/ df) and root mean square error of approximation (RMSEA). When Chi-square freedom ratio is less than 3, the goodness of fit of the model is high. The relative fit index uses comparative fit index (CFI), goodness of fit index (GFI), and normed fit index (NFI). When the above indexes are close to or greater than 0.9, the fitting is good.

Table 4 Degree of model fitting

Common index	χ^2	df	χ^2/df	GFI	RMSEA	RMR	CFI	NFI	NNFI
Proposed scope	-	-	<3	0.9	0.10	0.05	0.9	0.9	0.9
Value	314.902	64	4.92	0.942	0.087	0.049	0.953	0.942	0.943

As can be seen from Table 4, the Chi-square freedom ratio is 4.92, the root mean square error of approximation is 0.087, and the values of GFI, CFI, and NFI are 0.942, 0.953, and 0.942 respectively, all of which meet the adaptation standards except the Chi-square freedom ratio, which is somewhat large due to the large sample size, so the model has a good fit on the whole.

4.3.3. Result analysis and conclusion

Table 5 Results of hypothesis testing

Factor (Latent variable) → Analysis item (manifest variable)	Unstandardized coefficient	Standardized coefficient	Standard error	Z	P
Awareness → Satisfaction	0.422	0.46	0.043	9.92	0.000***
Note: *, ** and * represent significance levels of 1%, 5% and 10% respectively**					

According to the structural equation model diagram constructed in Figure 1, spss software was used to verify the influence of self-awareness on satisfaction and the influence path, and the results are shown in Table 5. As can be seen from the table, the standardized path coefficient of awareness on satisfaction is 0.46, and the P-value of significance is 0.00 and less than 0.05, reaching the significance level, indicating that hypothesis H1 is established, that is, college students' awareness of 12345 hotline has a positive impact on satisfaction.

As can be seen from the structural equation model, college students' awareness of 12345 hotline has a positive impact on their satisfaction at the significance level of 1%. Therefore, improving college students' awareness of 12345 hotline is conducive to improving their satisfaction with the hotline.

5. Analysis of Factors Influencing College Students' Perception of 12345 Citizen Hotline

Considering that college students may have biases in their self-evaluation of cognition, in order to make the research more effective, based on the recognition test items set in the questionnaire section, this article

conducted a bias analysis between self cognition and actual cognition of college students who have used the 12345 hotline and those who know not to use it.

5.1. Analysis of self- cognition based on self-evaluation

This survey analyzes the recognition of Beijing university students towards the 12345 government service hotline from five aspects: acceptance channels, working hours, work processes, business scope and

acceptance matters, and clear non directorial items. The five point scoring principle of the Likert scale is used (1 point represents no understanding at all, 5 points represents very understanding), and the cognitive level of university students is determined through their independent evaluation, The higher the score, the higher the college students' cognition of the 12345 government service hotline.

This article processes the data from these five dimensions, and the results are shown in the table below.

Table 6 Self cognition dimension table

category	mean value	standard deviation
Acceptance channels	3.31	1.276
working hours	3.23	1.337
Process flow	3.14	1.301
Business scope and acceptance matters	3.27	1.273
Clarify non acceptance matters	2.92	1.356
Cognition	3.16	1.168

From Table 6 above, it can be seen that the overall average self- cognition of college students towards the 12345 government service hotline is 3.16, with a standard deviation of 1.168, indicating that the overall self- cognition of college students towards the 12345 government service hotline is at a moderate level. From various dimensions, the average value of the acceptance channel dimension is the highest, at 3.31. The average score for items that are clearly not accepted is relatively low, at 2.92. From this, it can be seen that college students have a high cognition of acceptance channels, while they are not very familiar with the specific dimensions of non acceptance matters.

Compare the self-cognition of the 12345 hotline between college students who have used it and those who have not. The results are shown in Table 7 below.

Table 7 Descriptive statistical analysis of self-evaluation between used and unused individuals

	minimum value	Maximum value	mean value	standard deviation
Used	1	5	3.37	1.152
Not used	1	5	2.89	1.133

The standard deviation can be seen from the table above that college students who have used the 12345 government service hotline have a higher score on their recognition, that is, college students who have used the hotline have a higher evaluation of their own recognition than those who have not used it.

In order to facilitate the comparison between college students' self-cognition and actual cognition in the future, this article divides the recognition scores of college students' self-evaluation into five levels: "very low cognition", "low cognition", "average cognition", "high cognition", and "very high cognition". Meanwhile, a comparative analysis will be conducted between college students who have used the 12345 government service hotline and those who have not. The results are shown in the following figure.
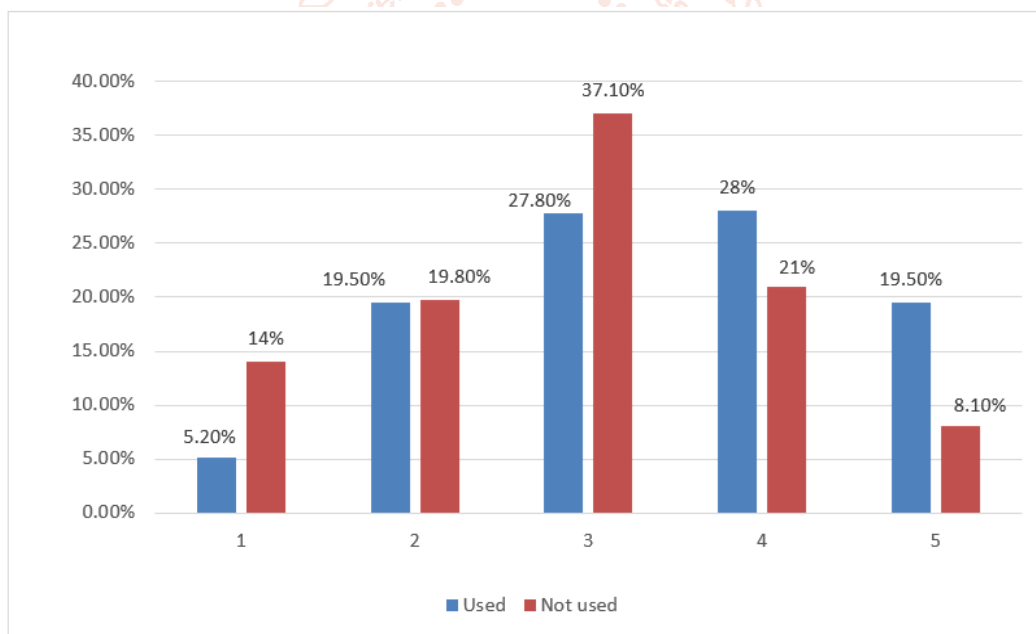

Fig.2. A bar chart comparing used and unused college students' self-evaluation

From the above figure, it can be seen that among college students with low cognition, whether they have used the 12345 government hotline has little impact. Among college students with high cognition and very high cognition, the number of people who have used it is greater than those who have not, accounting for 28% and 19.5% respectively. Most college students who have used and have not used the 12345 government service hotline believe that their cognition is average, with 27.8% and 37.1% respectively. Among college students who have used the 12345 government service hotline, only 5.2% believe that their cognition is very low, while 14% of college students who have not used it believe that their cognition is very low.

5.2. Analysis of actual recognition based on scenario simulation

This section starts from four dimensions: working hours, work processes, business scope, and non accepted matters, and conducts scenario tests on the respondents to test whether they truly understand the 12345 government service hotline. Based on the scoring results, the respondents are divided into five groups: very low cognition, low cognition, average cognition, high cognition, and very high cognition.

Firstly, preliminary processing was carried out on the collected question data, and the accuracy rate of answering the question was assigned a value. Each correct answer was recorded as 1 point, and each incorrect answer was recorded as 0 point. The scores of each student on the test question were summarized, with a total score of 1-2 indicating the lowest cognition and 9-10 indicating the highest. Therefore, the recognition of college students on the 12345 government hotline was divided into five categories. The results are shown in the following figure.
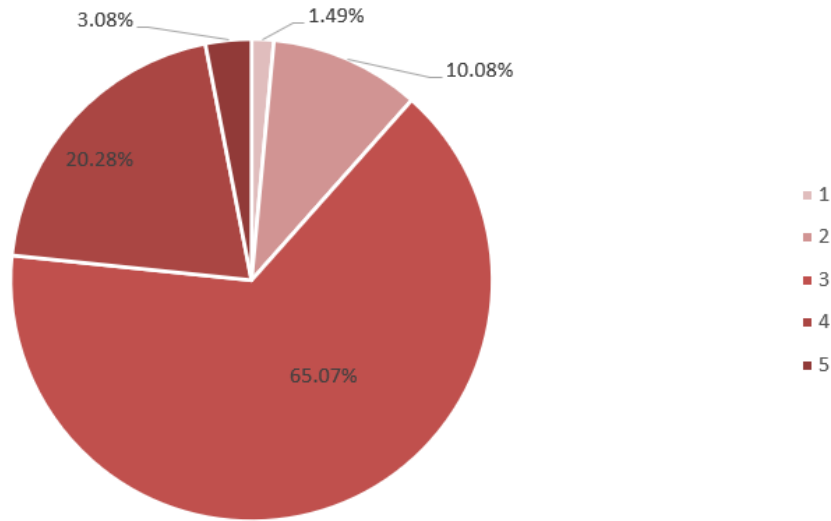
Fig.3. Cake shaped results of college student recognition test

From the above figure, it can be seen that the test result shows that the number of people with low cognition is the least, accounting for 1.49% of the total number of college students; The test result showed that the number of people with average cognition was the highest, accounting for 65.07%. From this, it can be seen that most college students' understanding of the 12345 hotline is at an average level.

To investigate the impact of using the 12345 government service hotline on cognition, the test results of college students who have used and have not used it were compared, as shown in the following figure. Through comparison, it can be seen that college students who have used the 12345 hotline actually have a slightly higher cognition than those who have not used it before.
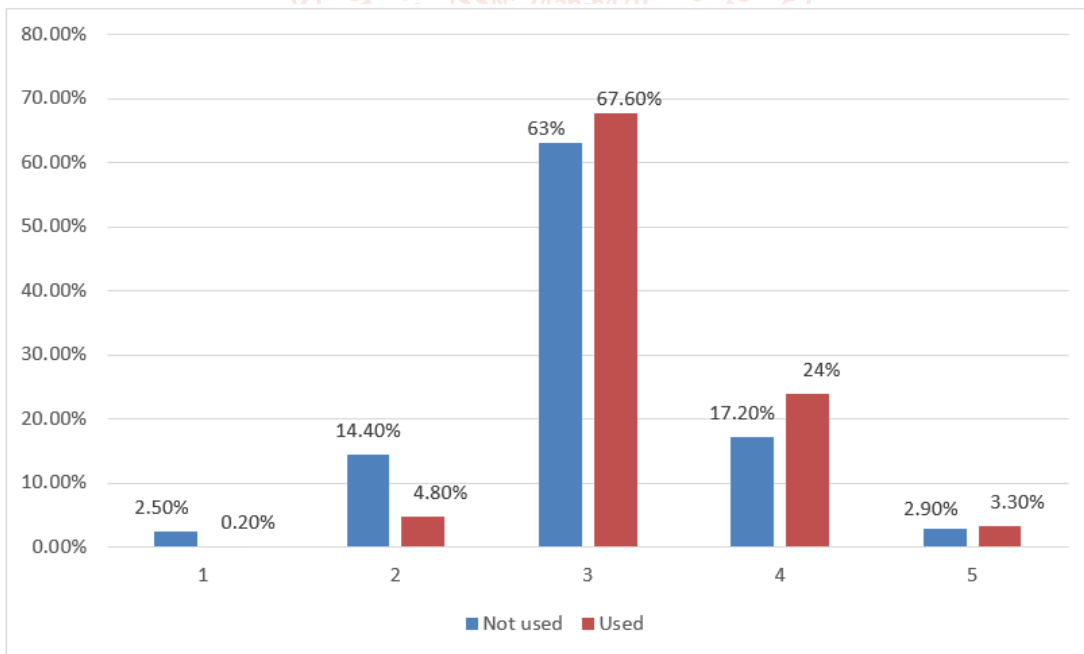
Fig.4. Comparative bar chart of usage among college students

5.3. College students who have used the 12345 hotline have a relatively small deviation in cognition

5.3.1. The Meaning of Perception Bias

The meaning of awareness bias refers to the distortion of some of people's results due to their own perception, group influence, or environmental influence, caused by the selective characteristics of individual perception. In

order to eliminate the impact of differences in cognition on data analysis and better analyze the true cognition of Beijing university students towards 12345, this article uses the 12345 Cognitive Scale to analyze the cognition bias of university students towards the 12345 hotline. Due to differences in the cognitive status of college students who have used and have not used the 12345 hotline, this section conducts an analysis of cognitive bias in these two aspects.

5.3.2. Standard

Referring to relevant theoretical research, recognition bias can be quantitatively analyzed by calculating horizontal components and global bias measures. The horizontal component refers to the average difference between self-cognition and actual cognition. When it is positive, it indicates that college students overestimate their cognitive level of 12345, while a negative value indicates an underestimation; The global bias measure is determined by the absolute difference between self- cognition and actual cognition, and is always positive. A smaller value represents a higher accuracy. The self-evaluation scale and the evaluation of test questions cannot be directly expressed in numerical terms, so the results of these two parts are assigned values separately. The difference between these two parts has practical significance, which is the global deviation measurement.

5.3.3. Assignment criteria

When the difference between college students' self-cognition and actual cognition of the 12345 hotline is greater, and the global bias measurement is greater, there is a significant difference in college students' cognition of the 12345 hotline; On the contrary, there is relatively little difference in the cognitive status of the 12345 hotline.

In the self-cognition section, combine the five levels of the self-cognition scale ("very disagree", "disagree", "general", "quite agree", "strongly agree") and assign a score of 1-5 points respectively. Calculate the average score of each student on the 5 questions in the scale section and assign values to the results. In the actual cognitive section, each test question is scored 1 point for correct answers, and no points are given for incorrect answers. Summarize the scores of each student and assign values to the scores. The assignments for the self-cognition part and the actual cognition part are shown in the table below.

Table 8 Assignment criteria

self-awareness	assignment	Practical cognition	assignment
1~1.5 （Excluding 1.5）	1	1~2 （Including 2）	1
1.5~2.5 （Excluding 2.5）	2	3~4 （Including 4）	2
2.5~3.5 （Excluding 3.5）	3	5~6 （Including 6）	3
3.5~4.5 （Excluding 4.5）	4	7~8 （Including 8）	4
4.5~5 （Including 5）	5	9~10 （Including 10）	5

It is necessary to pay attention to the absolute value of the difference between self-cognition and actual cognition. The higher the value, the more accurate college students' cognition of the 12345 hotline is; The higher the value, the less accurate the understanding of the 12345 hotline. The specific corresponding standards are shown in the table below.

Table 9 Assignment Difference and Accuracy Correspondence Table

| Cognitive accuracy of college students	Assignment difference
accurate	0
Generally accurate	1~2 （Including 2）
inaccurate	≥3

5.3.4. Data processing and conclusion

Among the valid questionnaires collected, 420 college students have not used the 12345 hotline. After data processing, 127 people were assigned a value difference of 0, accounting for 30.2% of the total number of college students who have not used the 12345 hotline; 275 people, accounting for 62.5%, have assigned values with a difference of 1-2; There are 18 people with an assignment difference of ≥ 3, accounting for 4.3%.

There are 522 college students who have used the 12345 hotline. After data processing, 127 people were assigned a value difference of 0, accounting for 24.3% of the total number of college students who have used the 12345 hotline; 377 people, accounting for 72.3%, had a difference between 1 and 2 in their assigned values; There are 18 people with an assignment difference of ≥ 3, accounting for 3.5%. The specific distribution is shown in Figure 24 (the outer ring of the circular chart shows the distribution of cognitive accuracy among

college students who have not used the 12345 hotline, while the inner ring shows the distribution of cognitive accuracy among college students who have used it).
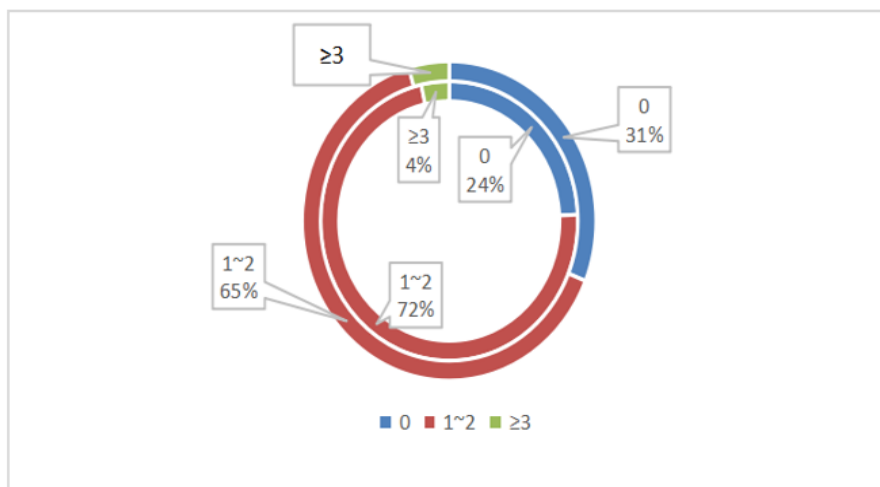
Fig.5. Circular graph of recognition deviation

From the above figure, it can be seen that among college students who have not used the 12345 hotline, only 4.3% of them have a significant difference in their self-cognition and actual cognition of the 12345 hotline; Among college students who have used the 12345 hotline, only 3.5% have a significant difference in their assigned values. In summary, compared to college students who have not used the 12345 hotline, there is a deviation between their self-cognition and actual cognition of the 12345 hotline among college students who have used the 12345 government hotline. It can be seen that improving the utilization rate of the 12345 hotline among college students is beneficial for helping them have a clearer understanding of their self-cognition.

6. Both usage behavior and personal characteristics will have an impact on recognition - based on the Probit model

6.1. Analysis of Differences in Factors Influencing Actual Perception

This section uses correspondence analysis to first analyze the relationship between college students' awareness of the 12345 government service hotline and whether they have used it. The P-value of this test is $0.000 < 0.05$, indicating that there is a correlation between whether college students have used the 12345 hotline and actual recognition. Therefore, college students who have not used and have used the 12345 hotline are divided into two categories for research on recognition.

The distribution of universities in different urban areas of Beijing is uneven, so no analysis of regional and actual recognition is conducted. This article analyzes the actual recognition of college students who have used the 12345 hotline by selecting gender, grade, major, usage channels, and usage frequency; Analyze the actual recognition of college students who have not used the 12345 government service hotline by selecting gender, grade, and major.

6.1.1. Analysis of the influencing factors on the actual recognition of college students who have used the 12345 hotline

Corresponding analysis was conducted using gender, grade, major, usage channel, and frequency as independent variables, and the actual recognition of college students who have used the 12345 hotline as the dependent variable. The specific results of the chi square contingency table are shown in the table below.

Table 10 Results of using chi square cross contingency table

	Chi-square statistic	p-value
gender	7	0.120
grade	40	0.000
speciality	45	0.000
Using channels	55	0.000
Number of uses	42	0.000

The original hypothesis of correspondence analysis is that the relationship between two qualitative variables is not significant. The p-value of the test for the relationship between gender and actual recognition is 0.12. When the significance level is 0.05, the original hypothesis cannot be rejected. It is believed that the relationship

between gender and actual recognition is not significant, and the correlation between grade, major, usage channel, and usage frequency and actual recognition has been tested. If the original hypothesis is rejected, it can be considered that grade, major There is a significant correlation between usage channels and usage frequency and actual recognition.

6.1.2. Main factors affecting actual recognition among college students who have not used the 12345 government service hotline

Table 11 Results of using chi square cross contingency table

	Chi-square statistic	p-value
gender	6	0.166
grade	9	0.737
speciality	27	0.042

According to the chi square cross contingency table results, the p-value of the relationship test between gender and actual recognition is 0.166, and the p-value of the relationship test between grade and actual recognition is 0.737. At a significance level of 0.05, the original hypothesis cannot be rejected. It is believed that the relationship between gender and grade and actual recognition is not significant, and the correlation between major and actual recognition passes the test. Therefore, rejecting the original hypothesis can be considered that the degree of correlation between major and actual recognition is not significant.

6.2. Channel of use, frequency of use, grade, and major have a significant impact on actual recognition

According to the corresponding analysis results, the actual recognition of Beijing university students who have used the 12345 hotline is influenced by the channel of use, frequency of use, grade, and major.The actual recognition is discrete and ordered data. Therefore, we chose channel of use, frequency of use, grade, and major as independent variables, and the actual recognition of college students who have used the 12345 hotline as the dependent variable. We established an ordered Probit model to quantitatively analyze the impact of these four independent variables on the actual recognition of college students who have used the 12345 hotline.

6.2.1. Construction of an ordered probit model

The actual recognition of Beijing university students who have used the 12345 hotline, a multivariate ordered discrete variable, is used as the dependent variable. When $Y^* = 1$, it indicates "low recognition", when $Y^* = 2$, it indicates "low recognition", when $Y^* = 3$, it indicates "average recognition", when $Y^* = 4$, it indicates "high recognition", and when $Y^* = 5$, it indicates "high recognition". The explanatory variables are assigned values of 1-6,11-4,1-4,11-5 for channel of use, frequency of use, grade, and major.

Using actual recognition as the dependent variable and major, grade, usage channel, and usage frequency as independent variables, an ordered Probit model was established using SPSS software. The regression results are as follows:

Table 12 Probit Model Inspection Results

variable	coefficient	p-value
speciality	-0.020	0.006
grade	-0.086	0.000
Using channels	-0.028	0.000
Number of uses	-0.076	0.000
intercept	-1.824	0.000

The model results are represented as:

$$Y^* = -1.824 - 0.020 specialty - 0.086 grade - 0.028 channel - 0.076 frequency + \varepsilon$$

6.2.2. Result analysis

The analysis results of the ordered probit model data show that the regression coefficients of major, grade, usage channel, and usage frequency are all negative, and the P-values are far less than 0.01. Therefore, major, grade, usage channel, and usage frequency will significantly affect the actual recognition of Beijing university students who have used the 12345 hotline, and there is a negative correlation.

In order to increase the awareness of Beijing university students about the 12345 government hotline and help them effectively use it when needed, lectures on the 12345 hotline can be held in different grades and majors to improve their understanding of the channels through which the hotline is used. When they encounter problems, they can reasonably use the 12345 hotline to seek help.

7. Conclusion and Suggestions

7.1. Investigation Conclusion

The research results show that college students' satisfaction with the 12345 hotline is significantly influenced by their awareness. To help college students effectively use the 12345 government service hotline, improve their satisfaction with it, and provide more references for the promotion and future development direction of the 12345 government service hotline, we need to increase their awareness of the hotline.

7.2. Suggestions for improving the awareness of the 12345 hotline

7.2.1. Strengthen the public service concept of college students towards the 12345 hotline

The original intention of establishing a hotline is to better provide convenient services to the people, so the cultivation of service awareness is the precursor. On the one hand, operators should firmly establish a service philosophy, standardize wiring etiquette, use the art of speaking to provide services to citizens, always pay attention to the attitude, tone, and volume of electricity connection, and pay attention to service details. On the other hand, college students should actively participate in the public services of the 12345 hotline, actively understand the service process, acceptance channels, and business scope of the 12345 hotline, and correctly and reasonably use the 12345 hotline to solve the problems they face.

7.2.2. Strengthen publicity and guide college students to use the 12345 hotline reasonably

Strengthen the promotion and promotion of various channels of the 12345 government service hotline, conduct more knowledge lectures on the 12345 hotline in universities, strengthen the promotion of other auxiliary and convenient 12345 hotline APP operating platforms, and improve the popularity of the 12345 government service hotline channel among college students. At the same time, we will popularize the knowledge of the 12345 hotline for different groups of people, improve their understanding of the hotline, and enable them to reasonably use the 12345 hotline for help when encountering problems.

7.2.3. 7.2.3 Optimize hotline construction to improve the satisfaction of Beijing university students with the 12345 hotline

The standardization of hotline services is an important path to promote the construction of a service-oriented government. According to the theory of government process reengineering, government process reengineering is guided by the needs of management objects, and the logical relationship between government processes is reconsidered. On the basis of cross departmental acceptance and handling of service matters, by shaping universities, convenient and reasonable comprehensive business processes, such as handling procedures, acceptance standards Further refinement of evaluation and assessment to improve the efficiency of government services and public satisfaction. The government clarifies the scope and process of hotline acceptance, helping college students in Beijing to have a specific understanding of the scope and process of hotline acceptance, improving the recognition of the 12345 hotline, and also improving their satisfaction with the hotline. At the same time, we will strengthen the promotion and expansion of channels for use, and enhance college students' awareness of the 12345 government service hotline from the source.

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