Disease or Anxiousness: Purchase Behaviour and the Spread of Hair Loss Messages in Short Video Clips

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Abstract: In recent years, health-nurturing practices have gradually penetrated into the daily lives of young people, reflecting the rapid spread of health anxiety.Hair loss has become one of the most troubling problems for countless young people.This paper used the Theory of Planned Behaviour as a theoretical model, and a questionnaire as a research tool, explaining the relationship between the purchase of anti-hair loss products by university students and the dissemination of information about hair loss in short video clips.The results of the study indicate that: a.The longer college students watch short videos, the more likely they are to be exposed to hair loss-related information;b.college students' attention to hair loss-related information in short videos is positively correlated with their purchase of anti-hair loss products; c.College students' trust in anti-hair loss products is positively correlated with their purchase of anti-hair loss product products; d.Social subjective norms about anti-hair loss products have a positive impact on college students' willingness to purchase anti-stripping products;e.College students' perceived ability to control their own purchase of anti-hair loss products in short videos is positively correlated with college students' purchase behavior. This study investigated the current status of hair loss among university students. using of short video platforms, handling of hair loss Information, purchase behaviour of anti-loss products to explain the relationship between the purchase of anti-hair loss products by university students and the dissemination of short video information about hair loss,giving a reference for the dissemination of hair loss information in short videos and the purchase of anti-hair loss products.

Keywords: Hair loss, Short videos, Healthy anxiousness, Theory of Planned Behavior.

1.   Introduction

As China enters a new period of reform and opening up, people's material and civilised lives have been greatly enhanced, but the population that once focused on the health-nurturing is now changing. According to a survey conducted by China Youth Daily among 1,979 post-90s, nearly 80% of the them are concerned about health information and consider health consumption as a necessity for their daily expenses[1].The sales data from the e-commerce platforms such as Jingdong and Taobao intuitively show that young people's demand for health and wellness products is growing rapidly and has replaced the middle-aged and elderly as the main force in the health market [2]."Drinking the most expensive goji berries, raising the least amount of hair and losing

hair" "On average, one in four people lose their hair " The above statements are also commonplace. This indicates that the phenomenon of hair loss is currently becoming a factor of anxiety among young people. The 2019 National Health Insight Report conducted a survey of more than 50,000 people, and the results showed that the post-90s(born after the year of 1990)' health self-ratings were much lower than those of the pre-70s, post-70s and post-80s[3]. This reflects the rapid spread of health anxiety. The phenomenon of "hair loss" is becoming more and more common among university students, and products and advertisements related to hair loss treatment are regularly appearing on social networks, especially on short video platforms, on topics such as hairline shift and hair loss.

A 2018 survey carried by the US-based Pew Research Center showed that China's smartphone share has reached 68%, ranking 15th in the world [4]. With the popularity of smartphones in China, platforms that use short videos as a means of communication are becoming more and more common. Smartphones have become the main source of information and knowledge for many people, especially young people, nowadays. According to a recent report by Sensor Tower Analytics, TikTok has achieved extremely well, now exceeding 1.5 billion downloads and ranking third in the most downloaded non-gaming category in 2019. At the same time, TikTok has managed to break through Facebook's dominance and overtake long-time leading giants such as Facebook and Instagram on the App Store and Google Play.

The boom of TikTok also represents the rise of the short video boom, and many online media such as Volcano video and Kwai have emerged. According to the "Q2 Domestic Mobile Internet Report 2021" released by the mobile data company Aurora, the current per capita daily APP usage time of domestic mobile netizens is 5.1 hours, and the highest usage time of netizens is short video APP, and college students are the main group of internet users. Despite being the main force on the Internet, university students are still a young group, and are more concerned about their appearance and sensitive to physical changes; topics such as hair loss, beauty and fitness are the focus of their discussions. Some studies have shown that high standards of health are a direct motivation for youth health anxiety [5]. The university student population is also more receptive and attentive to the dissemination of health knowledge about wellness and other topics in short video platforms. It is also easier to receive relevant video information through the algorithmic programming of the Internet. This creates a snowball effect and to a certain extent intensifies the generation of health anxiety.

The purchase of anti-deletion products by university students is influenced by various factors. In order to investigate the relationship between the purchase behaviour of university students and the dissemination of short videos,this paper employed the theory of planned behaviour as a model and analyzed the link between the purchase of anti-hair loss products and the dissemination of short videos through quantitative research, testing the validity of the theory of planned behaviour in explaining and predicting the purchase of anti-hair loss products by university students, so as to provide theoretical support for the correct treatment of the phenomenon of hair loss and health anxiety.

1.1. A Brief Overview of the Theory of Planned Behaviour

The Theory of Planned Behavior (TPB) is a successor to the Theory of Reasoned Action (TRA) proposed by Ajzen and Fishbine. TPB is a successor to the TRA co-proposed by Ajzen and Fishbine. Theory of Multiattribute Attitude was developed by combining the TRA [6]. Both the TPB and theTRA argue that any behaviour is influenced by the intention to act.

Attitudes imply positive or negative feelings towards a particular behaviour, and the stronger people's attitudes towards a behaviour, the greater the probability that it will occur or be rejected. However, people's attitudes tend to change depending on their cognitive level, their ability to think

and the influence of others, and in Bagozzi's view, the emphasis on attitudes in the theory of planned behaviour goes beyond what is appropriate and ignores the influence of the emotional component of the individual[7].

Subjective norms refer to the social pressure an individual feels to adopt a particular behaviour, often from friends, teachers, classmates and other people who can exert personal influence on the individual. Perceived behavioural control refers to the individual's past experiences and expected barriers to the ease with which the individual believes he or she can control and perform a behaviour. Individual behaviour is influenced by both internal and external aspects, and perceived behavioural control is the internal influence on an individual's behaviour.

Conner, Bamberg and others have argued that behavioural experience in some cases directly influences behavioural intentions and even the production of behaviour[8].

The theory of planned behaviour provides strong theoretical support for the study of a specific behaviour. In the field of communication, with the development of the Internet and mobile networks, the theory of planned behaviour has strong predictive and explanatory power in explaining media behaviour and other aspects, such as online activities[9] and online shopping[10]. The theory was initially designed to achieve specific goals by explaining how individuals plan their behaviour, but so far most research has focused on how to predict individual behaviour by changing or influencing the elements in order to achieve goals. In this study, a theoretical model of planned behaviour is used to explain the behaviour of a group of university students who purchase anti-hair loss products in a short video platform.

1.2. Hair Loss Anxiety in University Students

Alopecia is the phenomenon of hair loss, and there is a difference between physiological and pathological alopecia. Due to the growth cycle of hair, hair loss from 50hairs to 75 hairs per day is physiological alopecia, while long-term hair loss exceeding 100 hairs per day is more likely to be pathological alopecia, and pathological alopecia can also be diagnosed if hair loss is within the range of 100 hairs per day but there is a continuous decrease in self-perceived hair loss [11]. 2019 survey showed that over 250 million people in China are suffering from hair loss, and the trend of hair loss is younger [12]. In a survey conducted by China Youth Network among university students in 643 universities across China, it was found that 55.68% of university students suffered from hair loss, of which 71.79% suffered from mild hair loss and 67.88% had taken measures to relieve hair loss[13]

Anxiety is a frightening and distressing sense of worry about vague, unrecognised threats and difficulties that exist at some time in the future (Lauren B. Alloy, John H. Riskind, Margaret J. Manos). Health anxiety is an emerging risk that accompanies the information age, and because of the diverse sources, information overload, narrowing of conflicts and misleading nature of Internet health information, audiences are prone to ingesting misinformation and developing biased self-diagnosis. Hair loss anxiety among university students is essentially a manifestation of health anxiety. Regardless of whether or not they actually suffer from hair loss, people are more susceptible to the influence of the communication media in the Internet era, where information is developed. According to the research data of the 2018 Annual Report on the Search Behavior of Chinese Internet Users' Demand for Popular Science, the proportion of health and medical science popularization enquiries accounted for 66. 83% of the total, ranking first and being the most concerned topic of science popularization by users[14] In the environment of rapid development of the information society, people receive an excessive amount of information in a short period of time and digest it by themselves, and when people's information acceptance and processing ability cannot When people's ability to receive and process information is unable to cope with the explosive increase in information, a kind of self-compulsion, anxiety or tension is generated, which

causes psychological and physical discomfort. From a communication perspective, the health discourse of medical advertising has evolved with the times, gradually moving away from the disease-free and pain-free past towards fashion and aesthetics, and is an important reason for the increasing popularisation of health anxiety. [15]

Whether it is physiological or pathological hair loss, the most sensitive people to the topic of hair loss are officially the main Internet users, and it is precisely this characteristic of university students as the main Internet users that determines the spread of the phenomenon of "hair loss boom" on Internet platforms. Therefore, it is imperative to study the relationship between the spread of short video platforms and the purchase of anti-hair loss products.

1.3. Short Videos and Hair Loss

Compared with traditional graphic propaganda and communication, short video communication makes more information and can bring stronger visual impact and experience to users, while compared to other video platforms, the length of short video is shorter and the content is more innovative and streamlined, thus also making short video platforms can get more user understanding and support. Data shows that the scale of Chinese short video users reached 880 million in the first half of 2021, of which the per capita single-day use of short video applications was 125 minutes, 27 minutes higher than that of long videos, and the gap is growing; 53.5% of short video users watch short videos every day [16]. Based on the above frequency of people's use, the communication ability of short videos should not be underestimated.

The short video platform developed in the new media environment has a relatively high degree of freedom compared to traditional media, and the publication audit is less rigorous than traditional media, and its audience has become a broader network group. The content is also more focused on people's anxieties and concerns. Based on this model of pandering writing, the content is distributed through a variety of communication methods, including interpersonal and mass communication. The content is highly communicative and interactive. It serves the purpose of popularising science. However, there is often an exaggerated amplification that amplifies or even creates new anxieties.

2. Research Methods

2.1. Research Framework and Hypothesis

To achieve the research objectives, this paper constructs a research model of a group of university students purchasing anti-hair loss products on a short video platform based on a theoretical model of planned behaviour.At the same time, to address the specificity of college students' behavior of purchasing anti-deletion products in the short video platform, based on this theoretical model, we introduced the knowledge and belief behavior theory. By investigating the relationship between four variables - knowledge acquisition, attitude, subjective norm and perceptual behavioral control - and university students' behaviour in purchasing anti-deletion products on short video platforms, the mechanism of the theory of planned behaviour model's influence on university students' behaviour in purchasing anti-deletion products on short video platforms was verified.

A self-designed "questionnaire to explore the relationship between the purchase of anti-hair loss products and the dissemination of hair loss messages in short videos" was used.The questions on the questionnaire are all choice question, with both single and multiple choice.The questionnaire included a survey on the current situation of hair loss among university students, a survey on the use of short video platforms, a survey on the handling of hair loss information and a survey on the purchasing behaviour of anti-hair loss products.

Using a snowball sampling method, an online questionnaire was published and 250 students were randomly selected for the study, using personal life areas and social circles as a scope. Of

these, 88 were male(35.2%) and 162 were female(64.8%). There were 33 freshmen (13.2%), 68 sophomores (27.2%), 91 juniors (36.4%) and 36 seniors (14.4%), 22 postgraduates and above (8.8%).

This paper uses a questionnaire-based research method, based on the theory of planned behaviour, and specifies the following hypotheses.

Hypothesis 1: The longer college students watch short videos, the more likely they are to be exposed to information about hair loss.

Hypothesis 2: College students' attention to hair loss-related information in short videos is positively associated with their purchase of anti-hair loss products.

Hypothesis 3: Trust in anti-hair loss products among university students is positively associated with the purchase of anti-hair loss products.

Hypothesis 4: Subjective norms about hair loss prevention products have a positive effect on college students' willingness to purchase hair loss prevention products.

Hypothesis 5: There is a positive relationship between college students' self-control over the purchase behaviour of anti-hair loss products in short videos and college students' purchase behaviour.

2.2. Quality Control

Based on the reading of domestic and international literature related to hair loss, the questionnaire was designed according to the principles of science, objectivity and feasibility, and relevant experts were consulted to validate and modify the questionnaire.Unified learning and training with research staff prior to the formal survey to ensure smooth implementation of the survey.During the survey, the surveyor checked the mobile submission page on site after the students had completed the questionnaire to confirm that the students had completed the questionnaire to ensure the authenticity and validity of the completed questionnaire.

2.3. Statistical Analysis

The questionnaire powered by www.wjx.cn, a database was created using Excel and the data obtained was analysed using SPSS 26.0 software for statistical data, using Pearson correlation coefficient, sample variance and chi-square test analysis.

3. Results

3.1. Hypothesis 1: The Longer College Students Watch Short Videos, the More Likely They Are to Be Exposed to Hair Loss-Related Information

Table 1: Correlation analysis of college student's exposure to hair loss information and viewing of short videos.

Correlations			
		How many hours do you watch short vedieos in a day?	How often you receive the information related to alopecia each week？
How many hours do you watch short vedieos in a day?	Pearson Correlations	1	.166**
	Sig.(2-tailed)		.009
	N	250	250

Table 1: (continued).

How often you receive the information related to alopecia each week？	Pearson Correlations	.166**	1
	Sig.(2-tailed)	.009	
	N	250	250

**. Correlation is significant at 0.01level (2-tailed)

The results of the study showed that the length of time spent watching short videos was significantly correlated with the frequency of swiping to short videos related to hair loss information per week, with a Pearson coefficient of 0.166, p=0.009<0.05. Therefore, the hypothesis holds, so the length of time spent watching short videos is positively correlated with the frequency of swiping to short videos related to hair loss information.

3.2. Hypothesis 2: College Students' Attention to Hair Loss-Related Information in Short Videos is Positively Correlated with their Purchase of Anti-Hair Loss Products

Table 2: Sample variance of university students' attention to hair loss information and purchase Behavior.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
How often you receive the information related to hair loss each week？	Between Groups	14.034	1	14.034	14.239	.000
	Within Groups	244.430	248	.986		
	Total	258.464	249			
What's your first step when you receive the information of Hair loss	Between Groups	9.944	1	9.944	8.514	.004
	Within Groups	289.656	248	1.168		
	Total	299.600	249			
inititive search in short vides	Between Groups	7.400	1	7.400	3.760	.054
	Within Groups	488.056	248	1.968		
	Total	495.456	249			

According to the sample variance results, there was a significant correlation between the frequency of hair loss related information that could be swiped weekly and the number of people who swiped and completed hair loss information, F(1.248) = 14.239, p<0.001. c=0.858, C>0.7 The study results showed that there was a significant correlation and therefore college students' attention to hair loss related information in short videos and their purchase of anti-hair loss products behaviour was positively correlated.

3.3. Hypothesis 3: College Students' Trust in Anti-Hair Loss Products is Positively Correlated with their Purchase of Anti-Hair Loss Product Products

Table 3: Sample variance on trust and purchase behaviour of university students towards anti-hair loss products.

ANOVA					
faith					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22.071	1	22.071	75.400	.000
Within Groups	72.594	248	.293		
Total	94.665	249			

According to the sample variance results, there was a significant relationship between university students' trust in anti-hair loss products and their behaviour towards purchasing anti-hair loss products. $F_{(1, 248)} = 22.071$, $p<0.001$ C=0.788>0.7 Therefore, the positive attitude of university students towards anti-hair loss products is positively associated with their behaviour towards purchasing anti-hair loss products.

3.4. Hypothesis 4: Social Subjective Norms about Anti-Hair Loss Products have a Positive Impact on College Students' Willingness to Purchase Anti-Stripping Products

Table 4: Correlation analysis between purchase behaviour suggested by close friends and purchase behavior.

Correlations			
		Close friends suggest：	Have you ever purchased anti-hair loss products?
Close friends suggest	Pearson Correlation	1	.199**
	Sig. (2-tailed)		.002
	N	250	250
Have you ever purchased anti-hair loss products?	Pearson Correlation	.199**	1
	Sig. (2-tailed)	.002	
	N	250	250

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5: Correlation analysis between family members' suggested purchase behaviour and purchase behavior.

**. Correlation is significant at the 0.01 level (2-tailed).			
Correlations			
		Have you ever purchased anti-hair loss products?	family
Have you ever purchased anti-hair loss products?	Pearson Correlation	1	-.627**
	Sig. (2-tailed)		.000
	N	250	250
family	Pearson Correlation	-.627**	1
	Sig. (2-tailed)	.000	
	N	250	250

Table 6: Analysis of the correlation between classmates' suggested purchases and buying behavior.

Correlations			
		Have you ever purchased anti-hair loss products?	schoolmates
Have you ever purchased anti-hair loss products?	Pearson Correlation	1	.544**
	Sig. (2-tailed)		.000
	N	250	250
schoolmates	Pearson Correlation	.544**	1
	Sig. (2-tailed)	.000	
	N	250	250

The results of the study showed that the Pearson coefficient of close friends' suggestion to buy anti-deletion products on the short video platform was 0.199, p=0.002 <0.01, with a significant correlation with purchase behaviour. Therefore, intimate friends' suggestion to buy anti-deletion products on the short video platform was positively correlated with purchase behaviour; family members' suggestion to buy anti-deletion products on the short video platform was associated with purchase behaviour Pearson coefficient of -0.627, p=0.000 <0.01, and the result showed a significant negative correlation; therefore, family members' suggestion to buy anti-deletion products on the short video platform was negatively correlated with purchase behaviour; classmates' suggestion to buy anti-deletion products on the short video platform The Pearson coefficient of purchasing anti-hair loss products and purchasing behavior was 0.544, p=0.000<0.01, and the result showed a positive correlation. Therefore, there was a positive correlation between the students' suggestion to buy anti-deletion products on the short video platform and their purchasing behavior.

3.5. Hypothesis 5: College Students' Perceived Ability to Control Their Own Purchase of Anti-Hair Loss Products in Short Videos is Positively Correlated with College Students' Purchase Behavior

Table7: Sample variance analysis of university students' own ability to control the purchase behaviour of anti-hair loss products and their purchase behavior.

ANOVA					
PBC					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	64.265	1	64.265	122.489	.000
Within Groups	130.116	248	.525		
Total	194.381	249			

According to the sample variance results, there was a significant correlation between college students' perceived ability to control their own purchase of anti-hair loss products in short videos and college students' purchase behaviour. $f(1, 248) = 122.489$, $p < 0.001$ $C = 0.935 > 0.7$ Therefore, college students' perceived ability to control their own purchase of anti-hair loss products in short videos was positively correlated with college students' purchase behaviour was positively correlated.

4. Discussion

Based on the above findings, it is clear that university students are the majority of the online population, which makes them more receptive to health literacy communication on short video platforms. It is also easier to receive relevant video messages through the algorithmic processes of the Internet. This creates a snowball effect and, to some extent, intensifies the creation of health anxiety.At the same time, a survey on the current situation of hair loss among university students also indicated that more than half of them suffer from hair loss, and although the degree of hair loss varies, most of them will take some action to reduce the problems caused by hair loss.Finally, the climate of public opinion has become an important driver of attention and entertainment for hair loss.Many official accounts are targeting the phenomenon of hair loss in order to gain attention.As a result, there is a climate of public opinion such as "six out of ten people lose their hair" and "hair loss is getting younger".The public discourse will give people a psychological message and hair loss will gradually become a hot topic in the online media.At the same time, the post-90s and post-00s, who are the main force of the Internet, in order to be comforted and recognized in the online environment, This has led to the publication of self-congratulatory messages related to hair loss, such as "I'd rather not be single than lose my hair" and "I'll be stronger when l 'm bald", making hair loss a symbol that further fuels the public opinion environment in a pan-entertainment environment.

5. Conclusion

In conclusion, this paper relies on the theory of planned behaviour and adopts the research method of questionnaire survey, and finally concludes that the information on hair loss in short videos does promote the behaviour of university students to buy anti-hair loss products, and the reality behind it reflects the social problems to a certain extent.Through research, it was found that university students generally feel the risk of hair loss in their own lives, catalyzed by the high aesthetic standards and health pursuits of modern people, creating severe hair loss anxiety. Along with the development of short video platforms, individual perceptions are consolidated into a group consensus by short videos, complemented by the drive for profit, making hair loss anxiety among

university students increasingly serious and a social issue.In the study, it was found that the influence of friends and classmates on one's purchasing behaviour was positively correlated, while the influence of parents was negatively correlated and could be further studied.Hair loss anxiety and the spread of short videos is a very complex issue. In today's society, where the internet has become so relevant to our lives, how can we transform the spread of anxiety into a healthy one and find a "harmonious coexistence"? All this is yet to be studied and discovered.

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