

The Change of College Students Leisure Activity During the Epidemic Period: A Survey Study of College Students

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Abstract

During the new coronary pneumonia period, the leisure activities of college students were restricted. Therefore, many college students will encounter many difficulties when they engage in leisure activities. The purpose of the study is to explore how college students engage in leisure activities and what changes they make in this situation. In this paper, leisure sports are divided into three categories, namely static sports, leisure sports and tourism activities. The questionnaire was also designed according to these three types, and detailed survey activities, frequency and cost, a total of 320 online questionnaires were collected. The results show that the frequency of leisure activities has a significant effect on static activities, so it is inferred that most college students can carry out static activities as long as they have enough time. Second, the sex of college students has a significant impact on leisure sports, in the epidemic, the proportion of women involved in sports gradually larger than men. Finally, economic capacity has a significant impact on tourism activities, which means that tourism is still the most in need of money leisure activities. In conclusion, college students want to carry out leisure activities under the epidemic is an obstacle, but as long as they find suitable activities can still enjoy leisure activities.

摘要

在新冠肺炎期間，大學生的休閒活動受到了限制。因此，許多大學生在進行休閒活動時，會遇到許多困難。研究的目的是探討大學生在這個情況下如何進行休閒活動和做出了哪些轉變。在本文中將休閒運動分為三大類，分別是靜態運動、休閒運動和旅遊活動。問卷也是根據這三大類型來做設計，並詳細調查活動的內容、頻率和花費等，總共收集了 320 份的線上問卷。研究結果顯示休閒活動的頻率對於靜態活動有顯著的影響，因此推斷大部分的大學生只要有足夠的時間就能進行靜態活動。第二，大學生的性別在休閒運動有顯著的影響，在疫情期間女性投入運動的比例逐漸大於男性。最後，經濟能力在旅遊活動有顯著的影響，這表示旅遊仍然是最需要金錢的休閒活動。總結來說，大學生想要在疫情期間進行休閒活動是有障礙的，但是只要找到適合的活動還是能夠享受休閒活動。

關鍵字：大學生、休閒活動、旅遊

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INTRODUCTION

Background

During the epidemic, many leisure activities are restricted or prohibited that people must wear the mask and keep social distance. Before people walk into the department store, they must go through the body temperature testing station and disinfect hands. People also need to wear the mask when they are shopping. Some public places even control the number of people entering the venue. University also conducted¹. Students are difficult to meet each other and have some leisure activities. They may make some changes and find a new way to enjoy the leisure activities.

Motivation

According to the report and social phenomenon, college students would prefer outdoor leisure activities and cook at home instead of going to a restaurant. Because of the epidemic, a lot of gym limit the number of admissions. The gym of university also closes for one semester. People would find a new way to work out and reduce the risk of infection. The reports said that the business of many restaurants is not as good as before the epidemic. People like to cook the meal by themselves. Some restaurants have also banned in-house dining in order to prevent the epidemic. Economic activity has declined as a result.

However, some leisure activities do not have the problem about contagion risk and we also have some methods to save the restaurant business. College students can jog on the playground or play the basketball game instead of exercising in gym. There may be more leisure activities that will not be affected by the epidemic. Many

¹ 蔡瑞君, "消失或加劇的社會距離? 新型冠狀病毒疫情下 課程與教學數位化面臨的挑戰與契機," *Journal of Curriculum Studies* 15, no. 1 (2020).

restaurants started selling take-out lunch boxes to increase revenue. Some restaurants cooperate with delivery platforms to achieve a win-win situation. These changes have had an impact on the lives of college students.

Research Purpose

The purpose of the study is to explore the changes of college students' leisure activities during the pandemic period.

Research Question

1. What were the changes of college students' static leisure activities during the pandemic period?
2. What were the changes of college students' sports leisure activities during the pandemic period?
3. What were the changes of college students' tourism leisure activities during the pandemic period?

Contribution

The finding of my research would understand how university students choose their leisure activities during the epidemic period. The change of the leisure activities would have different influence. College students can get some benefit from the change of leisure activities. According to my questionnaire, I can let more college students know what kind of leisure activities can have fun and do the epidemic prevention at the same time.

Limits

My research limits are that I cannot investigate too professional leisure activities.

I hope my research can be effective for most people.

Delimits

The research delimits are that only focus on the university, and my survey objects are only University students.

LITERATURE REVIEW

Leisure Activities

According to periodical², the narrow definition of leisure activities is "outside of work, under freely available time and money, you can make your own choice, and get a healthy and pleasant experience to engage in activities." Therefore, in this definition, there are many activities that can be called leisure activities. If you can get pleasure and health from the activity and want to actively participate, it is an effective leisure activity.

In this era of busy life, it is more difficult for people to have leisure activities. In terms of time and money, modern people spend most of their time at work, and usually use holidays or vacations to enjoy leisure activities. While striving to make money is to be able to enjoy a better life, the money invested in leisure activities will be reduced or replaced by other methods. Under the constraints of time and money, people choose leisure activities in different ways. If people have much time and enough money, they may pay to go to the gym or travel abroad. This is also the leisure activity that most people expect. However, most people do not have such excellent conditions, and they can still have good leisure activities. For example, Taiwan has many natural national parks, where people can pay cheap tickets to play and study. Although everyone has different free time and financial ability, people can still have leisure activities.

When it comes to the types of leisure activities, most people think that being close to the natural environment or sports can be called leisure activities. However, if you can get a healthy mood from the activity, it can be called a leisure activity. Therefore, I simply divide leisure activities into outdoor, indoor, static, and dynamic.

² 黃瓊慧, "台灣社會發展休閒運動作法之探討," *中華體育季刊* 16, no. 3 (2002).

Leisure Activities Beneficial to College Students

We have a lot of leisure activities to enjoy our life, such as sports, study books or see a movie. I believe that every college student must have some interest in their activities. Leisure activities are also a very important part of university life. It makes the relationship between students and students closer. We engage in leisure activities because we can get great benefits from the process. Leisure activities can increase the experience of things and can also maintain physical and mental health. According to the journal, engaging in all kinds of leisure sports can bring many benefits to the individual, nothing more than physical and mental health, relaxation, happiness... etc.³ Therefore, cultivating leisure activities is very important for college students.

Different leisure activities have different benefits. Take leisure sports as an example, some people like to jog on the playground and some people like to work out in the gym. People who exercise outdoors can be closer to nature and have more space for activities. So they have more sports such as basketball, volleyball, football and baseball. The interaction between people is also closer, and they understand the spirit of cooperating with each other to win the game. On the other hand, People who like to exercise in the gym have a comfortable environment because of the air-conditioning and mechanical equipment. However, in the gym, people usually exercise alone, and there will not be too much physical contact with each other.

Some people do not like to engage in too intense leisure activities, so they prefer to watch American series at home or go shopping in department stores. These leisure activities are not the same as the types of sports, and they can meet different psychological needs. Those who regard watching American dramas or watching extracurricular readings as leisure activities can gain more knowledge and cultures of

³ 薛銘卿, "休閒及休閒活動之概念分析," *ibid.* 7, no. 4 (1994).

different countries. According to research, shopping can effectively reduce stress and achieve the effect of exercise. Therefore, some people like this static leisure activity. Leisure activities are of great benefit to people. It is important to cultivate your own leisure activities. It not only maintains the health of body and mind, but also enriches life effectively.

Leisure Activities for College Students

College students can find leisure activities that suit them through many channels, and leisure activities are also divided into many types and methods. The main way to find leisure activities is to join the university clubs. In Wenzao, we have about a hundred clubs that have academic type, technical type, service type, sports type and other student clubs. Various types of leisure activities help to develop various personality traits of college students. However, with such a wealth of choices, how college students choose clubs will be a problem, and what college students can learn from clubs. Another way to have good leisure activities is to cultivate interest on your own. I think a lot of college students would choose to travel abroad that can enhance their international outlook, but this way would cost a lot of money and much time. Some people would like to watch American TV series to enhance their English ability. Watching American TV shows will be an easier way for college students because it is more flexible and cheaper. Self-cultivation of interest will take many factors into consideration, such as economy, gender, or background. According to research findings⁴, when college students choose leisure activities, the department and background they study will affect their choice.

After discussing about the methods to choose the leisure activities, we can categorize the leisure activities of college students into three categories, one is the

⁴ 莊友好, "大學生休閒活動偏好之研究," (2014).

static type such as watching American dramas, the second is the type of sports and the last type of tourism. The first type of static activity is the leisure activity most easily taken by college students. College students can watch American TV shows or books at home, and money is certainly not a problem. The second type is sports leisure activities, and the sports venues can be divided into outdoor spaces or gyms. Such a choice depends on the financial problems of college students. I think college students who have enough money will choose the gym, and most college students may choose ball games or jogging. Both are good leisure activities and healthy. The last and most favorite is the type of tourism. Tourism can also be divided into foreign and domestic. I believe that most college students will choose domestic tourism because of economic problems. Even college students who are able to travel abroad will choose neighboring countries to reduce their travel expenses.

Static Leisure Activities

First, static leisure activities are the most relaxing and flexible way. There are several static leisure activities that are more popular among college students. In recent years, the Tabletop game has become a very popular activity. Many college students also love this leisure activity. During the game, college students can train their own logical ability and memory. Because of this, there are more and more types of tabletop games on the market, and you can buy them at bookstores or convenience stores. Because college students and young people love such leisure activities, many TV shows have begun to invite celebrities to play Tabletop games on the show. Such programs have high ratings, which also keeps this tabletop game trend going for a long time. In addition to the Tabletop game, watching movie series is also a very popular leisure activity. There is more and more audio-visual software on the market, such as Apple TV, Netflix, and Disney+. That software can watch albums and movies,

and the plots in the movies will become popular trends and topics of discussion among students. The current viewing method is also very convenient, as long as you have a mobile phone, a computer or a TV, you can use this software. Therefore, the flexibility of this kind of leisure activity is very high, and you can watch it anytime and anywhere.

Sports Leisure Activities

Another leisure activity is the type of sports, which can be divided into ball sports and aerobic exercises. Ball games are the most encountered by college students, such as basketball, badminton, billiards, volleyball...etc. Students who love ball sports can learn the importance of teamwork. Ball games usually need to be played in an outdoor space because some equipment is needed in the process, such as a basketball hoop, a volleyball net, and a billiard table. However, aerobic exercise usually does not have these obstacles. Students can start jogging or biking at school or in the park. Some students prefer to do aerobic exercise in the gym because they have a more comfortable exercise environment and conditions. The characteristic of aerobic exercise is to improve the quality of human endurance and strengthen the cardiopulmonary function. Sports leisure activities can better satisfy the health of the body.

Tourism Leisure Activities

Finally, there are leisure activities of the tourist type. The tourist type requires more time and money than the former two. The two conditions of time and money can be further divided into domestic tourism for foreign tourism. Most college students will choose domestic travel because of its convenient travel and low prices. The main factor is that Taiwan is a country that is quite suitable for tourism. The government has planned many national parks, and the tickets are quite cheap. Another point is that

Taiwan is surrounded by the sea, and college students love to engage in marine activities. This is why tourism-type leisure activities are popular among college students. Finally, I believe that some college students have the ability to travel abroad. The choices for such college students are even more abundant. Therefore, this part of college students is more worthy of studying his leisure preference.

Find the leisure activities of college students during the epidemic

At the end of 2019, the new crown virus began to spread globally. Every country has begun to take anti-epidemic measures for the epidemic. In Taiwan, our policy is also quite complete⁵, effectively isolating people who may be infected. People must wear masks when going in and out of public places and maintain a safe social distance. As a result, Taiwanese people will also reduce their chances of going out. Most people who originally ate in restaurants have switched to cooking at home. Looking at the epidemic from the perspective of college students, we started online teaching courses when the epidemic was at its worst. This is a big change in teaching also change the leisure activities of college students.

First, let me analyze the leisure activities that have been affected. During the epidemic, indoor places where many people gather, such as department stores, large stores, or movie theaters, are high-risk areas. Especially gyms that college students love very much. According to the law, it is necessary to wear masks in such places. However, it is quite difficult to wear masks during exercise. College students who like to go shopping in department stores are also reluctant to go because they are afraid of the epidemic. Finally, we can find that the epidemic not only severely hit the economy, but also has a great impact on people's leisure activities.

Even in such a severe epidemic, people can still engage in some leisure

⁵ 何品玲, "防疫政策是否能有效控制疫情?," (2021).

activities. As long as you can maintain a safe social distance or stay away from the crowd, leisure activities can be carried out. Being in the vast nature will not be affected by social distance. Taiwan has abundant forest parks and beautiful ecology, which is a very good thing for people who love nature. On the other hand, People can also do some leisure activities without being affected by the epidemic. such as watch American series or read extracurricular books. This kind of static leisure activities can improve students' knowledge and cultural literacy. From this we can know that during the epidemic, maintaining social distance and reducing infections are the primary conditions for engaging in leisure activities

During the epidemic, although we cannot engage in too many leisure activities in public spaces, we can still find alternative ways.

Method of Collecting the Data

My research topic is the change in leisure activities of college students during the epidemic. After my analysis, this type of research is to study a group of people in a specific place or under clear conditions, and then observe their changes and differences. There are also many studies of this type. The first paper is about the transformation of leisure activities for the elderly⁶. The research populations of this paper are 2,567 people over 65 years old in 1989, and 2,864 people over 65 years old in 2003. And then use statistical methods for analysis. This research is like my research, mainly to explore the transformation of leisure activities. The second paper is to study the obstacles of youth leisure activities in Hualien area⁷. This thesis takes 16 schools out of 38 junior high schools and high schools in Hualien area as the research object of young students. Then analyze the results. The last article is about the types and obstacles of urban women's leisure activities⁸. The research sample of this paper is 1085 women aged 20 and above in Taichung City. Through factor analysis, 43 urban rest activities are divided into ten activity preference types. The research methods of these papers all use questionnaire surveys, because this method can collect a large amount of needed information. I will also use questionnaires to complete the thesis.

My study population is focus on the college students, but I cannot investigate universities across Taiwan. University is a place with many foreigners. The time when the epidemic began to break out was the beginning of school, and many students would take advantage of the holiday to travel abroad or return home to visit relatives.

⁶ 林冠穎, "台灣老人休閒參與之轉變: 成因及影響," *政治大學社會學研究所學位論文* (2008).

⁷ 周佳慧, "休閒活動與休閒阻礙," *中華體育季刊* 15, no. 3 (2001).

⁸ 李素馨, "都市女性休閒類型和休閒阻礙," *戶外遊憩研究* 10, no. 1 (1997).

This is a very dangerous problem, so many colleges started an online teaching course. This method effectively prevents close contact between students, but it also has a great impact on students' leisure activities. It is a very good question for students to take preventive measures and find appropriate leisure activities under such circumstances.

METHODOLOGY

Research Design

I will use questionnaire to survey the college students online. After collecting the data, I will use the data to analyze and observe the changes in this period.

The major data for my research questions is the survey of college students. I think college students have a good concept of epidemic prevention. In the face of the epidemic, many policies of university make students very safe. The leisure activities of college students are quite abundant, and it is worth studying how college students make changes in the face of the epidemic. I would also check some periodical about leisure activities from Internet. These journals can give me a better understanding of college students' preference for leisure activities. Comparing the results of these two sources can increase the credibility of the research.

The Locale of Research

The locale of my research would be in the university. I will make an online questionnaire to investigate the leisure activity preferences of college students and the changes they have made in the face of the epidemic. This questionnaire can also know the financial status and time allocation of college students. Under different conditions, college students have different choices for leisure activities. During the epidemic, the coping styles of college students' leisure activities can also help other students.

The Population of Research

My research population is the college students who like to engage in leisure activities. College students usually have more free time, so they have more time to enjoy leisure activities. The leisure activities of college students are also quite extensive. During the epidemic, many leisure activities are restricted, and some activities can be carried out as usual. So my main research sample should focus on

restricted leisure activities. When the leisure activities of college students are restricted, they take epidemic prevention measures.

Instrument and Data Collection

I will use the questionnaire to complete my survey. And my main research population is the students of University. My questionnaire will be divided into five parts, namely demographic variables, normal leisure activities of college students, and what changes have been made during the epidemic. In the first part, we will investigate the amount of leisure activities of college students, their economic status and their preference for leisure activities. The information in the first part can be extended to the information in the second part. In the second, third and fourth part, we can learn about the leisure activities that college students usually engage in. In the end, the epidemic forced changes in the leisure activities of college students. Then study the changes made by college students. This questionnaire will be collected using online answers. It is expected that 800 pieces of data will be collected as samples. Analyze after all the information is obtained.

In the first part of the named demographic variables, I will first investigate the gender of the population because different genders will choose different leisure activities. Next, the questionnaire will investigate the grade of college students. College students face different academic pressures in different grades. This will affect the time spent on leisure activities for college students. Therefore, the questionnaire can also know the degree of busyness of schoolwork and the amount of leisure time. On the other hand, not only the time will affect the choice of leisure activities, but the economic aspect is also an important factor. So, the questionnaire will also investigate the financial ability of college students. At the end, college students will be asked

about the type of leisure activities they prefer, and three indicators will be used for the survey, namely static type, sports type, and travel type.

In the second and third parts, detailed information about static types and sports types will be investigated respectively. There will be a variety of different activities under these two types. Therefore, we will continue to investigate the frequency, cost, location and number of leisure activities selected by college students. These factors will effectively help me analyze the possibility of leisure activities during the epidemic. The type of tourism in the fourth part is somewhat different from the first two. I will simply divide the type of tourism into domestic tourism and foreign tourism. The cost of travel type may be relatively high, and the frequency of conduct will be relatively low. But during the epidemic, this will be the most dangerous leisure activity.

In the last part, I will investigate the transformation of college students' leisure activities and the impact of their leisure activities. Including changes in the frequency of their repair activities and their primary choice of leisure activities. These results can understand the best leisure activities for college students in the face of the epidemic, and at the same time effectively prevent the epidemic.

DATA ANALYSIS

The online questionnaires were used google form and collected during July and August. The main survey population was Taiwan's college students and their leisure activities during the epidemic. The sample size was 302. The questionnaire was disseminated through three types of release, the first was to transmit links to the surrounding university friends, the second was to rely on friends to help share, and finally to use the Facebook Club to collect. The final data had three indicators to show the current leisure activities of college students, which were also be based on the choice of leisure activities to understand the actual overview. SPSS was then used for analysis with demographic surveys.

The following data analysis included one section of descriptive analysis of the collected data and three sections of inferential analyses to test the three research questions on what's the change of the leisure activities for college students. Use three indicators to analyze the problem, including static, sports, and tourism activities. In the demographic variables section, I used gender, grade, and college leisure time as self-disclosure. Regression analysis was been used to study the relationship between time and leisure activities.

General Profiles of Collecting Data

In the demographic analysis, the respondents of Female have more than male, there are 63% of female respondents and 37% of male respondents. The total statistical population is college or graduate students, and most respondents are in the third and fourth years of college. Third grade had 28.3% respondents, and fourth grade had 33% respondents. Questionnaire also looked at college students' leisure time and how often they have a leisure activity. There were 36% of respondents think they had enough leisure time, and 40% of respondents are willing to do leisure activities 2 to 3 times a week. According to the results, college students had plenty of leisure time. The questionnaire also includes their financial ability and the cost of leisure activities. There were 65.7% of respondents consider their financial ability to be ordinary. This was followed by well-off, with 28.7%. Most college students were willing to spend 500-1000 on leisure activities every month. It was having 37.5%. Second, 25.8% of college students were willing to spend more than 1000 a month on leisure activities. Finally, the most important data in this section show that 80% of college students choose to engage in static leisure activities.

Change on Static Leisure Activities

Research Question One: “What were the changes of college students’ static leisure activities during the pandemic period?” There are nine questions to investigate the content and impact of static activities. From the survey of static activity, it can be found that most college students choose to carry out static activity during the epidemic. The main venues are in their own homes and take longer to carry out. Next, the following sections are analyzed and observed based on gender, spend on static activity, and the amount of leisure time.

The Differences of Gender

In the survey, there were 119 male respondents and 205 female respondents, more women answered than men. Gender will be one of the factors affecting leisure activities. Therefore, this analysis explores the impact of gender on static activity. First, use the data results of static activity to calculate the average. This way, a new sample size is obtained. Next, independent samples t-test used to compare the gender and the average number of static activities. After analysis, the average for women was 4.065 and for men it was 3.985. The implication of this data is that both men and women are willing to spend some money and time on leisure activities. However, the F value is 2.748 and is not significant. The data show that gender is not significant in static activity variables. Because P value is 0.412, the result of the data is greater than 0.05.

The Differences of spend on static activity

In addition, everyone has different static expenditures, which depends on the student’s economic background. First, the economic capacity and the average of static activity are analyzed by one-way ANOVA. The result analysis from one-way ANOVA

shows that P value is significant because its value is 0.004. In Cheffé method, the difference in economic capacity for static activity is known. There are significant differences between people with average economic ability and well-off people because their average difference is 0.306 and P value is less than 0.05. So static activity has a significant difference in the economic capacity.

The Differences of amount of leisure time

The amount of leisure time is important for static activities. The use of different times represents different activities. First, frequency of leisure activities and the average of static activity are analyzed by one-way ANOVA. The result analysis from one-way ANOVA shows that P value is significant because its value is 0.001. In Cheffé method, the data collected showed significant differences between those who engaged in leisure activities every day and those who engaged in leisure activities two to three times a week. The average difference between these two is 0.515, while the P value is 0.001. Because 0.001 is less than 0.005, there is a significant difference between these two. (See Appendix B-1)

Change on Sports Leisure Activities

Research Question Two: “What were the changes of college students’ sports leisure activities during the pandemic period?” There are nine questions to investigate the content and impact of sports activities. From this sports activity survey, it can be found that during the outbreak, most college students do not choose to take leisure exercise, because most gyms are not open, and outdoors are required to wear masks. The main venues are in their own homes, and the time is relatively short. Next, the following sections are analyzed and observed based on gender, spend on static activity, and the amount of leisure time.

The Differences of Gender

In the survey, there were 119 male respondents and 205 female respondents, more women answered than men. Gender will be one of the factors affecting leisure activities. Therefore, this analysis explores the impact of gender on sports activity. First, use the data results of sports activity to calculate the average. This way, a new sample size is obtained. Next, independent samples t-test used to compare the gender and the average number of sports activities. After analysis, the average for women was 3.400 and for men it was 2.950. The implication of this data is that women are more likely than men to spend time and money on leisure sports. However, the F value is 2.329 and is significant. The data show that gender is significant in sports activity variables. Because P value is 0.000, the result of the data is less than 0.05. (See Appendix B-2)

The Differences of spend on sports activity

In addition, everyone has different sports expenditures, which depends on the student's economic background. First, the economic capacity and the average of sports activity are analyzed by one-way ANOVA. The result analysis from one-way ANOVA shows that P value is significant because its value is 0.002. In Cheffé method, the difference in economic capacity for sports activity is known. There are significant differences between people with rich economic ability and poor people because their average difference is 0.482 and P value is less than 0.05. So, sports activity has a significant difference in the economic capacity.

The Differences of amount of leisure time

The amount of leisure time is important for sports activities. The use of different times represents different activities. First, frequency of leisure activities and the

average of sports activity are analyzed by one-way ANOVA. The result analysis from one-way ANOVA shows that P value is not significant because its value is 0.278. In Cheffé method, the data show no significance because the values are greater than 0.05. According to the results, the frequency of leisure sports and leisure activities is not affected.

Change on Tourism Leisure Activities

Research Question Three: “What were the changes of college students’ tourism leisure activities during the pandemic period?” There are eight questions to investigate the content and impact of tourism activities. From the survey of this tourism activity, it can be found that most college students do not choose to travel activities during the outbreak, possibly because college students want to reduce the risk of infection. The main tourist destinations also choose the open natural environment. Next, the following sections are analyzed and observed based on gender, spend on static activity, and the amount of leisure time.

The Differences of Gender

In the survey, there were 119 male respondents and 205 female respondents, more women answered than men. Gender will be one of the factors affecting leisure activities. Therefore, this analysis explores the impact of gender on tourism activity. First, use the data results of tourism activity to calculate the average. This way, a new sample size is obtained. Next, independent samples t-test used to compare the gender and the average number of tourism activities. After analysis, the average for women was 3.378 and for men it was 3.414. The implication of this data is that both men and women are willing to spend some money and time on tourism activities. However, the F value is 0.720 and is not significant. The data show that gender is not significant in

tourism activity variables. Because P value is 0.764, the result of the data is greater than 0.05.

The Differences of spend on tourism activity

In addition, everyone has different tourism expenditures, which depends on the student's economic background. First, the economic capacity and the average of tourism activity are analyzed by one-way ANOVA. The result analysis from one-way ANOVA shows that P value is significant because its value is 0.000. In Cheffé method, the difference in economic capacity for tourism activity is known. There are significant differences between people with average economic ability and well-off people because their average difference is 0.433 and P value is less than 0.05. So, tourism activity has a significant difference in the economic capacity. (See Appendix B-3)

The Differences of amount of leisure time

The use of different times represents different activities. First, frequency of leisure activities and the average of sports activity are analyzed by one-way ANOVA. The result analysis from one-way ANOVA shows that P value is not significant because its value is 0.508. In Cheffé method, the data show no significance because the values are greater than 0.05. According to the results, the frequency of leisure sports and leisure activities is not affected.

Summary of the Data Analysis

Among the three main indicators: static activity, sports activity, and travel activity. First, in static activities, the frequency of leisure activities of college students has a significant impact. During the outbreak, most college students stayed in their homes, so static activities such as watching albums, reading books, or playing mobile games were performed daily.

Then, in sports activities, the gender of college students has a significant impact. During the outbreak, women were more likely than men to spend time and money on sports. This may be due to men's preference for outdoor sports, but the timing of the outbreak reduces the choice of outdoor activities. As a result, the standard of women's leisure sports has been raised.

Lastly, in terms of tourism activities, the economic ability of college students has a significant impact. During the outbreak, tourism activities require more money and time, and students with financial affluence devote more resources to tourism activities than other college students. Therefore, college students who can manage their economy are better able to carry out this type of leisure activities.

CONCLUSION

Discussion of the Major Findings

Based on the data analysis, I have three main findings. Next, these major findings will be used to answer the research questions. Finally, compare with other academic papers and discuss changes.

Discussion 1: The transition of idle time to static activity

In the case of new coronary pneumonia, the leisure activities of college students are restricted. Therefore, static activity is a free and easy way to do it. Whatever your financial situation, you can enjoy leisure activities at home. The study's data also showed that most college students don't spend much money on static activities, whereas there are significant differences in the frequency of leisure activities between college students. Most college students spend less time away from home because of the outbreak. According to previous studies⁹, even without the limitations of the outbreak, most college students prefer static leisure activities. College students who love outdoor leisure activities themselves will prefer static activities because of restrictions. Finally, the frequency and length of static activities will be a major shift in static activities of college students, college students spend more time and more frequent static activities.

Discussion 2: Gender changes for leisure sports

Leisure sports is an activity that can satisfy both physical and mental health. College students generally choose playgrounds, gyms, or gyms, but it can be difficult to

⁹ 陳律盛, "大學生休閒覺知自由, 休閒阻礙和休閒參與之關係," *大專體育學術專刊* (2011).

exercise in the event of an outbreak. Therefore, in the research data, most college students' exercise time and frequency have decreased, and fewer college students will spend money on leisure sports. However, there is a particular finding that previous studies¹⁰ have shown that men are more likely than women to participate in leisure sports. In this study, it was found that female college students spend more time and money on leisure sports than male college students. The reason for this shift may be that the barriers to exercise are reduced because they can't go out to exercise, so college students are doing simple exercises at home. This makes it easier for female college students to engage in leisure sports.

Discussion 3: Changes in economic capacity for tourism activities

Tourism is an attractive activity for college students, but it takes enough money and time to do so. In the context of the outbreak, tourism became an almost impossible activity. In this study, we found that economic capacity has a significant impact. In other paper studies¹¹, college students determine the itinerary of their trip, including attractions, days, and expenses, because of their financial ability. Therefore, it can be inferred that the main factor that affects college students' participation in tourism activities is money. Because of the outbreak, night markets in various cities have been closed and many tourist attractions have been closed. Therefore, college students will choose the sparsely populated nature. In this way, not only reduce the cost of tourism but also reduce the risk of infection.

¹⁰ 楊亮梅 and 顧毓群, "大學生休閒運動態度量表編製與調查," *體育學報*, no. 37 (2004).

¹¹ 楊瑞 and 白凱, "大學生旅遊消費行為影響的實證分析——以西安市大學生為例," *人文地理* 23, no. 5 (2008).

Conclusion and Suggestions

Under the outbreak of new coronary pneumonia, the leisure activities of college students have indeed been affected. In terms of static activities, it may be a better choice, but college students may spend too much time on this activity. In leisure sports, most college students exercise at home, so the proportion of female college students also increased. In terms of tourism activities, economic capacity has always been a major factor affecting tourism activities, but in the event of an outbreak, tourism restrictions will reduce the cost of tourism. Finally, the purpose of this study is to enable college students to carry out suitable leisure activities during the outbreak and to do a good job of epidemic prevention.

In this study, more samples could be collected to increase the variety of leisure activities. In this way, the transformation of leisure activities can be more obviously studied.

APPENDIX

疫情期間大學生休閒活動的轉變

各位同學，您好：

我是文藻國際事務系大三的同學，這是一個關於大學生休閒活動調查的問卷，在嚴峻的疫情期間，許多休閒活動受到了阻礙，而大學生從事何種休閒活動能夠有效獲益並做好防疫是我的研究目標。

這份問卷的填答結果僅供學術研究，不會對外公開請安心填答，很感謝同學花費幾分鐘幫忙填寫問卷。

指導教授:林建宏

學生: 姚勝傑

一、基本資料

1. 您的性別
 男 女
2. 您就讀的年級
 大學一年級 大學二年級 大學三年級 大學四年級
 研究所
3. 您覺得自己在課務以外的休閒時間，充足嗎
 非常充足 充足 尚可 不足 非常不足
4. 進行休閒活動的頻率
 每天進行 一個禮拜 4-6 次 一個禮拜 2-3 次
 一個禮拜 1 次 都沒有
5. 您的經濟能力
 富裕 小康 一般 清寒 貧困
6. 您每個月願意花費在休閒活動的金錢
 大於 1000 元 500-1000 元 200-500 元 低於 200 元 免費的休閒活動
7. 平常喜好的休閒活動類型（可複選）
 靜態類型（如：桌遊、手遊或追劇）
 運動類型（球類運動或有氧運動）
 旅遊類型（國內旅遊或國外旅遊）

二、靜態活動的選擇與方式

8. 下列休閒活動，可以是您靜態休閒活動選擇 (可複選)
 桌遊 手遊 電腦遊戲 觀賞美劇 閱讀課外讀物
 其他__
9. 願意花費在靜態活動的花費（每一個月）
 大於 1000 元 500-1000 元 200-500 元 低於 200 元
 無花費
10. 通常進行靜態活動的時間（每一個禮拜）

- 每天進行 一個禮拜 4-6 次 一個禮拜 2-3 次 一個禮拜 1 次
11. 每次進行靜態活動的時間長短
10 個小時以上 6-9 個小時 3-5 個小時 1-2 個小時 1 小時以下
12. 進行靜態活動時的地點
 自己的住家 室內的公共場所 戶外空間 其他
13. 通常進行活動時的活動人數
高於 5 人 3-5 人 2 人 獨自一人
14. 活動進行時，彼此之間是否有接觸
是 否
15. 進行活動時，能夠同時做好防疫措施嗎
可以 不可以
16. 疫情期間，你選擇的靜態活動是否有受到影響
是 否

三、休閒運動的選擇與方式

17. 休閒運動的選擇
 球類運動 有氧運動 其他
18. 願意花費在休閒運動的花費（每一個月）
大於 1000 元 500-1000 元 200-500 元 低於 200 元
無花費
19. 進行休閒運動的地點
學校操場 學校體育場 健身房 公園 其他
20. 通常進行休閒運動的時間（每一個禮拜）
每天進行 一個禮拜 4-6 次 一個禮拜 2-3 次
一個禮拜 1 次
21. 每次進行休閒運動的時間長短
3 個小時以上 2 個小時 1 個小時 1 小時以下
22. 通常進行休閒運動時的活動人數
高於 5 人 3-5 人 2 人 獨自一人
23. 休閒運動進行時，彼此之間是否會有接觸
是 否
24. 進行休閒運動時，能夠同時做好防疫措施嗎
可以 不可以
25. 疫情期間，你選擇的休閒運動是否有受到影響
是 否

四、旅遊類型的休閒活動選擇與方式

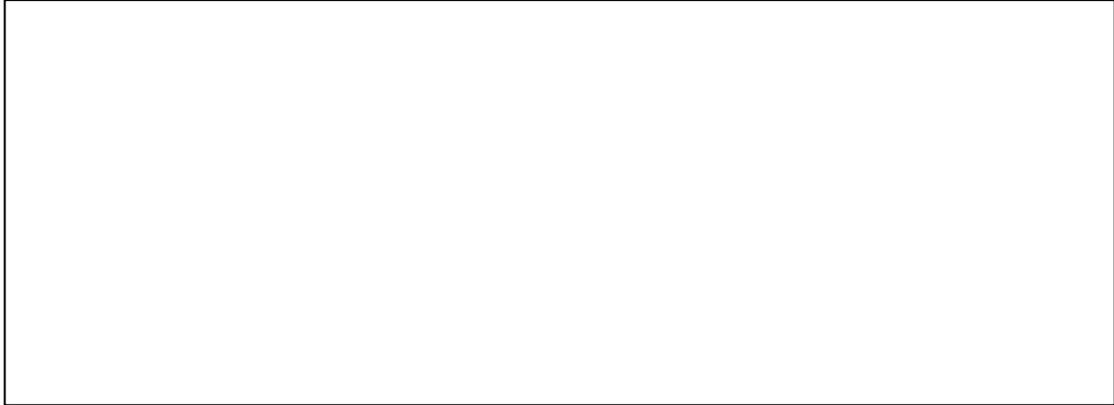
26. 旅遊類型的選擇

- 國內旅遊 國外旅遊
27. 願意在旅遊活動的花費
 大於 10000 元 7000-10000 元 5000-7000 元
 2000-5000 元 1000-2000 元 1000 元以下
28. 通常多久進行一次國內旅遊 (每年)
 10 次以上 7-10 次 5-6 次 3-4 次 1-2 次以下
29. 通常多久進行一次國外旅遊 (每年)
 5 次以上 3-4 次 1-2 次 未出國過
30. 規劃旅遊時，會選擇的景點或地區
 接近大自然的活動區域 (如: 國家公園、離島地區)
 偏向熱鬧的大都市 (如: 觀光夜市、西門町商圈等)
 其他
31. 旅遊活動時的人數
 高於 5 人 3-5 人 2 人 獨自一人
32. 參與旅遊活動平均一次的天數
 高於 10 天 6-9 天 4-5 天 2-3 天 一天以內
33. 旅遊時能夠適當的保持距離並做好防疫措施嗎?
 可以 不可以

五、面對疫情時做出的轉變

34. 你在疫情前後所選擇的休閒活動類型一樣嗎
 相同 不同
35. 當你選擇的休閒活動受到阻礙時，做出什麼改變
 轉換成不受疫情影響的休閒活動
 維持原本的休閒活動，但同時做好防疫措施
 其他
36. 面對疫情時，是否會影響你進行休閒活動的頻率
 是 否
37. 在疫情期間，每次進行休閒活動的時間是否縮短
 是 否
38. 在疫情期間，進行休閒活動的人數是否受到影響
 是 否
39. 在疫情期間，進行休閒活動的地點是否受到影響
 是 否
40. 在疫情時，你首要選擇的休閒活動類型
 靜態類型
 運動類型
 旅遊類型

對於這份問卷有什麼看法和建議，請不吝賜教：



APPENDIX B

Appendix B-1

Multiple Comparisons						
Dependent Variable: NEWTS						
Scheffe						
(I) Frequency of leisure activities		Mean Difference (I-J)		Sig.	95% Confidence Interval	
			Std. Error		Lower Bound	Upper Bound
Everyday	4-6 times a week	-0.36202	0.14499	0.103	-0.7697	0.0456
	2-3 times a week	-.51562*	0.12299	0.001	-0.8614	-0.1698
	1 time a week	-.44146*	0.15163	0.039	-0.8678	-0.0151
4-6 times a week	Everyday	0.36202	0.14499	0.103	-0.0456	0.7697
	2-3 times a week	-0.15360	0.12641	0.688	-0.5090	0.2018
	1 time a week	-0.07944	0.15442	0.966	-0.5136	0.3547
2-3 times a week	Everyday	.51562*	0.12299	0.001	0.1698	0.8614
	4-6 times a week	0.15360	0.12641	0.688	-0.2018	0.5090
	1 time a week	0.07417	0.13398	0.959	-0.3025	0.4509
1 time a week	Everyday	.44146*	0.15163	0.039	0.0151	0.8678
	4-6 times a week	0.07944	0.15442	0.966	-0.3547	0.5136
	2-3 times a week	-0.07417	0.13398	0.959	-0.4509	0.3025

*. The mean difference is significant at the 0.05 level.

Appendix B-2

Independent Samples Test										
t-test for Equality of Means										
				t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
NEWTG (Mean of static activity)	Equal variances assumed	2.329	0.128	3.561	297	0.000	0.44982	0.12633	0.20121	0.69843
	Equal variances not assumed			4.068	296.623	0.000	0.44982	0.11058	0.23219	0.66744

Appendix B-3

Multiple Comparisons

Dependent Variable:						
Scheffe		Mean			95%	
(I) Economic capacity		Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Wealthy	Well-off	-0.72018	0.40850	0.377	-1.8687	0.4284
	Generally	-1.15333*	0.39927	0.041	-2.2759	-0.0307
	Poor	-1.20725	0.44160	0.060	-2.4489	0.0344
Well-off	Wealthy	0.72018	0.40850	0.377	-0.4284	1.8687
	Generally	-.43316*	0.13026	0.012	-0.7994	-0.0669
	Poor	-0.48707	0.22925	0.213	-1.1316	0.1575
Generally	Wealthy	1.15333*	0.39927	0.041	0.0307	2.2759
	Well-off	.43316*	0.13026	0.012	0.0669	0.7994
	Poor	-0.05391	0.21238	0.996	-0.6510	0.5432
Poor	Wealthy	1.20725	0.44160	0.060	-0.0344	2.4489
	Well-off	0.48707	0.22925	0.213	-0.1575	1.1316
	Generally	0.05391	0.21238	0.996	-0.5432	0.6510

*. The mean difference is significant at the 0.05 level.

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