

A comparative study of differences between participants in two popular sports

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Abstract: The article aims to explore the differences in leisure activity frequency between cyclists and runners, as well as the frequency of participation in various mass sports activities. It also analyzes the habits and experiences of participants in these two activities and explains the correlation between their participation in mass sports activities and their lifestyle. The study sample consists of leisure cyclists (194) and runners (664), including participants in two of China's largest mass sports events, the Lake Taihu International Cycling Race and the Beijing Marathon. The research is based on both quantitative and qualitative methods, and the results show that cyclists are more active than runners and participate in more activities. Moreover, the majority of those classified as "enthusiastic" participants are cyclists. The conclusion is that an individual's active lifestyle is influenced by their previous sports participation and experiences. Most of them consider engagement in sports as a way to evaluate themselves, and participation in different sports activities represents a unique leisure lifestyle.

Keywords: Mass sports projects, Bicycle, Running, Leisure time

1. Introduction

With the development of the economy, the number of mass sports events held each year has been increasing. In China, a variety of mass sports events are held annually, especially running and cycling events, which provide convenience for the public to participate in physical and social activities. In recent years, sports and physical activities have not only become synonymous with health and quality of life but also a social activity for many people. The continuous increase in the number of events, the improvement in event quality, and the diversity and attractiveness of events have attracted more people to engage in various sports activities in their leisure time, leading to positive changes in people's mentality. At the beginning of the reform and opening up, people lacked leisure time, and those who participated in sports were often considered "strange" and often regarded as idle people. Nowadays, this view has changed dramatically, and people are increasingly aware of the benefits of an active lifestyle, with most beginning to reap the benefits. Many people also consider physical exercise to be a good way to spend their spare time.

Social interaction also plays an important role in sports activities. People are attracted to group activities mainly because of collective identity, a sense of belonging, the strengthening of social relationships, and the possibility of group motivation [1]. This is also one of the main reasons for mass participation in sports activities. Sports enthusiasts consider it very important to highlight their lifestyle or show their different attitudes towards mainstream culture, while also joining an environment and a group around their preferred sports. Jing Yan et al. [2] reported that such sports enthusiasts also engage in specific consumption. They have similar dressing styles, usually wearing only those brands that are well-known and popular in a certain sport, with sports event commemorative T-shirts being the most popular. Enthusiastic runners, cyclists, or triathletes often consider high-end sports equipment as a symbol of status, and their conversations usually revolve around the difficulty level of their personal projects.

The above indicates that their values differ from those who are less physically active. In the process of participating in sports events, these people find happiness, satisfaction, selfhood, and self-confidence.

2. Methods

The study sample included leisure cyclists and runners who actively participate in mass sports activities. The sample comprised participants from two of China's largest mass sports events: the Lake Taihu International Cycling Race and the Beijing Marathon. In the initial phase, a quantitative study was conducted using an online survey method, inviting registered participants of both events to participate in the survey. Event organizers sent emails with links to the online survey to them. A total of 858 participants from the two mass sports events completed the online survey questionnaire, with 664 participants being runners from the Beijing Marathon and 194 participants being cyclists from the Lake Taihu International Cycling Race. Data were processed using SPSS 20.0. Initially, descriptive statistics were used to analyze the data, showing the frequency distribution and the correlation between social demographic activities and sports participation. Cluster analysis was employed to classify and merge participants with similar characteristics based on exercise frequency. The criteria for classification included: the frequency of engaging in sports activities; the quantity of sports activities (number of weekly working hours); the number of times participating in mass sports activities (number of annual events); participation in international mass sports activities. Therefore, participants were divided into three groups based on their frequency of participating in sports events and their characteristics: occasional participants, regular participants, and avid participants.

For the qualitative research part, focus group discussions were conducted. The main purpose of the focus group discussions was to gain insights, feelings, experiences, and reactions from participants (leisure cyclists and runners) that could not be obtained through other data collection methods [3]. The participants in the focus group discussions included individuals who had experienced different running or cycling events domestically and internationally. Snowball sampling was used to distribute focus group discussion invitations to representative leisure sports organizations, inviting their members who participated in mass sports events to join.

3. Results and discussion

The use of online questionnaires was to establish the social characteristics of participants in cycling and running sports and to determine their exercise frequency. Male participation in sports events still dominates, especially in cycling (Table 1).

Table 1: Gender Composition of Participants

	Cycling	Running	Total
Male	153	335	488
%	78.9	50.5	56.9
Female	41	329	370
%	21.1	49.5	43.1
n	194	664	858

Previous studies investigating sports participation or participants in recreational sports events have indicated that [4-5] men's sports participation is higher than women's. He Buwen [6] reported that in the 2016 Lanzhou Marathon (full course), nearly 6,000 people participated in the run, of which men accounted for about 66%. Li Fangfang et al. [7] studied the participants of the Lake Taihu International Cycling Event, with men making up 91%. It should be noted that there is a significant gender difference among cycling event participants compared to runners. The results of this study are similar to theirs, with fewer women participating in cycling sports. The low participation rate of women in cycling sports may be due to the fact that there are more participants and the participants are more concentrated. Zhu Jian et al. [8] summarized the habits of cyclists and pointed out that cycling sports must overcome the challenge of dense crowds. He also mentioned the brave characteristics of the cycling group, which are necessary for participating in cycling competitions, and this is also the reason why women rarely participate in cycling

sports. Many early studies have suggested that women do not like sports mainly because they need to cope with fear with their whole body and mind.

The age structure indicates that the age range of runners and cycling participants is between 30 and 40 years old. The study found that the average age of the cycling group is 37.54 ± 10.21 years, slightly older than that of runners (36.21 ± 9.89 years). The results are consistent with the study by Zhu Jian et al., whose findings suggest that the average age of participants in mass sports events is between 30 and 50 years old, but women are younger (25-45 years old). In the survey, the frequency of participation in various mass sports events throughout the year was asked for both runners and cycling participants. The average annual participation of the subjects was 5.01 ± 5.86 , similar to previous study results. The study shows that the cycling group participates in mass sports events more frequently (7.91 ± 8.76). Runners participate in events less frequently (4.16 ± 4.36). Comparing the frequency and weekly exercise volume of the two sports participants shows a significant difference. Sixty percent of the cycling group participates in sports at least three times a week, and the subjects in the study participate in sports for 6.45 ± 3.92 hours per week.

Comparing the weekly exercise volume of the two sports forms shows a significant statistical difference ($F=128.4$; $p=0.000$). The study shows that subjects engage in physical activity for 4.5 days a week, with a weekly exercise volume of 32 km and 6 hours of exercise per week. In another study, leisure cyclists exercise an average of 11.4 hours per week. Based on the above different studies, it can be concluded that cyclists and runners engage in similar exercises, but the cycling group spends more time on activities.

The above study results show that runners, especially cyclists, frequently participate in leisure physical activities. However, the study found that the reasons for participating in sports and participating in different events differ between the two. Therefore, participants were classified and merged based on similar characteristics using stratified cluster analysis. Based on similar characteristics, participants were divided into three groups: occasional participants, regular participants, and avid participants. The results show that the cycling group participates in mass sports events more than runners. Among the cycling group, avid participants make up the largest share (16.6%), while avid participants among runners only account for 3.6%. Most runners belong to the "occasional participants" (56.2%).

Table 2: Characteristics of Participation in Mass Sports Events for the Three Groups

	Occasional Participants	Regular Participants	Avid Participants
Weekly Activity Time (hours)	N=416(48.5%)	N=385(44.9%)	N=57(6.6%)
	4.34±1.69	8.13±4.18	10.71±4.29
Participation Frequency			
Do not participate	0.20%	0%	0%
1-3 times per month	3.20%	0%	0%
Once a month	6.60%	1.10%	0%
2-3 times per week	52.70%	29.70%	12.70%
More than 3 times per week	37.30%	69.20%	87.30%
Participation in Mass Sports Events			
Number of annual events	1.92±1.02	5.28±2.68	22.62±9.52
Participation in International Mass Sports Events			
Never	88.50%	47.20%	5.50%
Rarely (2 times per year)	10.80%	46.90%	47.20%
Often	0.70%	5.90%	47.30%

The average number of sports events participated in each year is shown as the mean $\pm$ standard deviation. The stratified cluster analysis includes 97.8% of the total sample. Table 2 shows that occasional participants in cycling sports account for only 6.6%. "Avid participants" in cycling sports spend over 10 hours per week on exercise, and their frequency of participating in sports events each year is also high (22.62 ± 9.52). Among them, 47.3% often participate in international mass sports events. This reflects the participants' excessive emphasis on their leisure activities and their desire to live a lifestyle akin to professional athletes.

Compared to avid participants, regular participants engage in physical activities less frequently. For them, engaging in sports represents most of their leisure time, with 69.2% of them exercising more than three times a week and spending about 8.13 ± 4.18 hours per week on physical activity. Their participation in sports activities is mainly during their leisure time, and compared to avid participants, they participate in mass sports events for only 5.82 ± 2.68 hours.

4. Conclusion

The main purpose of the study was not only to determine who participates in mass sports activities but also to investigate why they participate, as well as the differences between cycling and running as two forms of mass sports activities, and to clarify the reasons and objectives for participating in these two types of mass sports activities. Therefore, at least three different types of participants can be distinguished, defined as occasional participants, regular participants, and avid participants. The study shows that cycling enthusiasts participate more frequently in mass sports activities than runners, with a larger proportion of avid participants in this sport.

For the avid participants, who make up the smallest share of those involved in activities, participating in a variety of sports represents a special lifestyle. Most of them plan and organize their participation in sports activities and make meticulous preparations to achieve higher results. "Regular" and "occasional" participants engage in sports activities less frequently but still regularly. Although their reasons for participating in various mass sports activities differ from those of the "avid" participants, these individuals engage in sports activities in an amateur and unorganized form. For them, it is not competition but a way to spend leisure time. Future research should focus more on studying different groups of people who are "avidly" involved in sports during their leisure time, and the significance of "avidly" participating in sports during leisure time also requires more research attention.

5. References

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