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The current situation and strategies of sustainable development of a state-level intangible cultural heritage project Choi Lei Fut in the context of the new era: Analysis based on questionnaire survey and field interviews

Liping Jiang^{1,*}, Lihua Huang²

¹ School of Business and Foreign Studies, Guangdong Mechanical & Electrical Polytechnic, Guangzhou 510000, China
² Faculty of Hotel Management and Tourism, Guangdong Vocational College of Hotel Management, Dongguan 523000, China
* Corresponding author: Liping Jiang, 1531447813@qq.com

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Copyright © 2024 by author(s). Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license. https://creativecommons.org/licenses/ by/4.0/ Abstract: With the development of the times and changes in the environment of traditional martial arts, Choi Lei Fut (a Chinese martial arts system), a Chinese state-level intangible cultural heritage, is facing many difficulties in its inheritance and sustainable development. Especially in the context of COVID-19 pandemic prevention and control measures, the sustainable development of Choi Lei Fut is facing increasingly serious challenges. In order to understand the current situation of Choi Lei Fut's survival and development in the new era, and to enhance the momentum and vitality of its sustainable development, this study combines questionnaire survey and field interviews to investigate and analyze the current situation. Based on this, it proposes strategies to promote the sustainable development of Choi Lei Fut. This study will not only provide methodological reference for the inheritance and development of Choi Lei Fut but also offer insights for the inheritance and sustainable development of other Chinese martial arts gyms and even martial arts practices elsewhere.

Keywords: intangible cultural heritage; Choi Lei Fut; epidemic prevention and control; sustainable development; field interviews

1. Introduction

Intangible cultural heritage (ICH) can be defined as "The practices, representations, expressions, knowledge, skills-as well as the instruments, objects, artifacts, and cultural spaces associated therewith-that communities, groups and, in some cases, individuals recognize as part of their cultural heritage" (UNESO, 2003). ICH consists of oral traditions and expressions, language, performing arts, social practices, rituals, festive events, and traditional craftsmanship. As one of the state-level ICH projects, Choi Lei Fut (a Chinese martial arts system in Jiangmen, Guangdong province in China) was founded by Chen Xiang (1806–1875), a native of Gongbeili, Jingmei Village, Yamen Town, Xinhui District, Jiangmen City, Guangdong Province in China, during the Daoguang Period of the Qing Dynasty (Tang et al., 2011). Choi Lei Fut is a treasure of Chinese martial arts culture and a crystallization of ICH, and on June 7th, 2008, Choi Lei Fut was approved by the State Council of China to be included in the second batch of state-level ICH list, playing a vital role among the cultural treasures of Chinese martial arts. Choi Lei Fut is also the main material for the international martial arts competition routines created by China, and therefore enjoys the reputation of "Tai Chi in the north and Choi Lei Fut in the south" (Jing et al., 2014). However, Choi Lei Fut is now being undermined spiritually and culturally under the impact of market economy. The outbreak of the COVID-19

pandemic has profoundly affected all aspects of individuals, communities, and groups engaged in the innovation of non-genetic heritage, making the survival and transmission of Choi Lei Fut face a more severe challenge. Unlike tangible heritage, the sustainability of ICH is closely related to people's productive lives, and the expression, transmission and protection of ICH rely on the practice and participation of the people. ICH is practiced by the people in a specific group; if there is no one to continue practicing a particular ICH, it will slowly fade away and disappear. ICH is a newly appeared term coined to represent living cultural expressions and practices (Alivizatou-Barakou et al., 2014). It creates bridges between past, present and future. Sustainable development is considered a key concept and solution in creating a promising and prosperous future for human societies (Pirouz et al., 2020).

In order to explore the current status of the existence of Choi Lei Fut in Jiangmen, Guangdong province in China and the main obstacles faced by its inheritance and the self-assistant measures, so as to promote the sustainable development of Choi Lei Fut, this study uses the method of questionnaire survey and field interview to investigate and analyze Choi Lei Fut under the epidemic prevention and control, and on this basis, propose countermeasures to promote the sustainable development of Choi Lei Fut. Therefore, this study is of great significance both theoretically and practically.

2. Literature review

The research on Choi Lei Fut is mainly concentrated in the Chinese academic field. Zhang (2017) conducted a questionnaire survey on the protection and promotion of Choi Lei Fut, and compared and analysed the survival status of Choi Lei Fut in two different cities in Guangdong province: Foshan city and Jiangmen city. He found that the local people did not know much about ICH (Zhang, 2017). Choi Lei Fut has been facing many problems, such as shrinking practice population, serious loss of skills, long-standing sectarian interest disputes, low degree of marketization, and insufficient cultural connotation; Hu (2017) studied and analyzed the current situation of Choi Lei Fut by means of literature review, expert interview and other methods, and found that there are many problems in the inheritance of Choi Lei Fut, and also put forward countermeasures for related problems (Hu and Cai, 2017); Liu (2020) studied the application value and cultural connotation of Choi Lei Fut through the methods of literature, text analysis and logical analysis. He found that the inheritance methods of Choi Lei Fut were insufficient and provided many methods for the development of Choi Lei Fut (Liu, 2020); Hou (2021) studied the inheritance and development of Choi Lei Fut in colleges and universities by using the methods of literature and interviews, and believed that Choi Lei Fut received less attention (Hou, 2021). On this basis, he proposed countermeasures for the inheritance and development of Choi Lei Fut.

The literature review on Choi Lei Fut highlights several key contributions and gaps in existing research. While previous studies have provided valuable insights into the protection, promotion, and inheritance of Choi Lei Fut, they have primarily relied on questionnaire surveys and interviews, with limited use of fieldwork; moreover, previous studies were conducted before the outbreak of the COVID-19 pandemic, so their findings have limited reference significance for the study of the current survival

status and development of Choi Lei Fut. Based on previous research results, the research team conducted a research on the survival and development of Choi Lei Fut in September 2022 using a combination of questionnaires and field interviews. This research is the first professional questionnaire and field interview research on the survival status of Choi Lei Fut under the epidemic in China, covering the survival status of Choi Lei Fut since the outbreak of the epidemic, the response measures taken by Choi Lei Fut inheritors during the epidemic, and the support measures and effects of various social sectors on Choi Lei Fut during the epidemic. By bridging these gaps and providing new insights, the current study contributes to the ongoing exploration of Choi Lei Fut's survival and development, and ultimately aims to promote its sustainable development.

3. Research design

This study incorporates questionnaire and field survey to investigate the current status of Choi Lei Fut.

3.1. Theoretical foundation

Firstly, the use of a questionnaire as a data collection tool is grounded in the survey research methodology, which is widely used in social sciences to gather information from a large sample of respondents in a systematic and standardized manner. The questionnaire design in this study, which includes multiple-choice questions, is a common approach in survey research as it allows for efficient data collection and analysis. The use of multiple-choice questions is based on the assumption that respondents can accurately and consistently select the most appropriate response from a predefined set of options, which aligns with the positivist paradigm that seeks to establish objective knowledge through empirical observation and measurement.

Secondly, the field survey component, particularly the interviews, adds a qualitative dimension to the research design. The use of semi-structured interviews allows for flexibility in the conversation while still maintaining a focus on the research question. This approach is grounded in the constructivist paradigm, which emphasizes the subjective and interpretive nature of reality. By incorporating interviews, the study is able to capture the perspectives and experiences of respondents in a more nuanced and in-depth manner, which can provide valuable insights that may not be captured through quantitative methods alone.

Furthermore, the decision to divide the interview content into three major categories based on the identity of the interviewees (inheritors of Choi Lei Fut, gym directors, relevant government administration personnel, and gym students) is informed by the theory of social roles and positions. This theory suggests that individuals occupy different roles and positions within society, which shape their experiences, perspectives, and behaviors. By tailoring the interview questions to the specific roles and positions of the respondents, the study is able to gain a more nuanced understanding of the various perspectives and experiences related to Choi Lei Fut.

The questionnaire and interview outline design, research subjects, and data collection are illustrated as follows.

3.2. Questionnaire and interview outline design

The questionnaire is divided into two parts: the first is the basic information of the respondents, and the second is the content of the questionnaire. All of content questions are multiple-choice. The interview outline is divided into two parts: the first part covers the basic information of the interviewer, and the second part is the content of the interview. The interview content was organized into three major categories based on the identity of the interviewees: questionnaire for inheritors of Choi Lei Fut, Choi Lei Fut gym directors, and relevant government administration personnel, and gym students. For each major category, five semi-structured questions were set.

3.3. Research subjects and sampling

The interviewees of the research were "Choi Lei Fut practitioners" (Su and Fang, 2022), including Choi Lei Fut inheritors (including unnamed inheritors), Choi Lei Fut gym directors and Choi Lei Fut gym students, as well as relevant government management personnel. This study adopts the method of purposive sampling, and employs a combination of focus group interviews and one-to-one in-depth interviews. Group Interviews were conducted with Choi Lei Fut gym students, including 5 focus group interviews with an average interview time of 40 minutes. In-depth interviews with an average interview time of about 12 min, were conducted with the following people: the inheritors of Choi Lei Fut (n = 3), relevant governmental personnel (n = 5), Choi Lei Fut Gym directors (n = 5). The interview outline was a semi-structured question set with 8 questions in total. At the beginning of the interviews, the interviewers informed the participants that the content of the interviews would be kept confidential and used for academic research only. With the consent of the respondents, the author recorded the interview process, and used a voice recorder to transcribe the interview data into text, and finally obtained more than 14,000 words of interview records. The details of the research subjects are shown in Tables 1 and 2.

Table 1. R	Respondent's	details of	field	interview.
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	Gender The age scope of participants			Participants resources						
	Male	Female	≤18	18–25	26–55	≥56	Inheritor	Choi Lei Fut gym directors	Relevant government personnel	Choi Lei Fut gym students
Interview survey	30	18	19	15	10	4	3	5	5	35

	Gende	Gender		ge scope of	participants	5	Places resources of respondents	
	Male	Female	≤18	18–25	26-55	≥56	Jiangmen, Guangdong	Other places
Questionnaire survey	50	163	37	161	12	3	191	22

Table 2. Respondent's details of questionnaire.

3.4. Data collection

The main methods of interviewing were field interviews and social media platform communication. At the beginning of the interviews, the interviewers were informed that the contents of the interviews were confidential and used for academic research only; concerning the questionnaire research, taking into account the epidemic prevention and control factors, the online webpage "Questionnaire Star" was used to collect and analyse the data. By the end of 1 November, 223 questionnaires were distributed, 213 questionnaires were validly collected, with a return rate of 96.8%.

4. Finding and discussion

4.1. Current status of Choi Lei Fut

In order to grasp the current status of the survival of Choi Lei Fut during the epidemic, this research team conducted interviews and questionnaires with the relevant government personnel, the Choi Lei Fut gym directors, the inheritors of Choi Lei Fut and the Choi Lei Fut gym students. The following is a summary of the data analysis and finding.

4.1.1. Relevant government personnel

The government's dedication to preserving Choi Lei Fut is evident from their specialized planning for its positioning and protection, as outlined in the ICH Law. This includes defining protection units and inheritors, which underscores the importance of community engagement in ensuring that the knowledge and skills associated with Choi Lei Fut are passed down to future generations. Additionally, the government's proactive approach to monitoring Choi Lei Fut's status through regular visits and inspections not only safeguards the cultural heritage but also encourages compliance with ICH Law and related regulations. The belief among interviewees that government guidance, policy support, and publicity channels are crucial for Choi Lei Fut's protection underscores the state's pivotal role in nurturing a supportive environment for traditional arts. By leveraging policy support and publicity channels, the government can boost awareness, attract resources, and foster collaboration, ultimately contributing to Choi Lei Fut's coexistence with economic development. The notion that Choi Lei Fut, as an ICH project, can balance "cultural fidelity" and "economic operation" is particularly profound, as it suggests that cultural heritage preservation and economic growth are not mutually exclusive but can reinforce each other. By integrating Choi Lei Fut into the local economy, such as through tourism initiatives, the government can facilitate both economic prosperity and the preservation and dissemination of this invaluable cultural heritage.

4.1.2. Choi Lei Fut gym directors

According to the interview data with Choi Lei Fut gym directors, all of them well understand the content of the document "Guangdong Intangible Cultural Heritage Regulations" which issued by Guangdong Government in 2011, but the obligations of the basic units non-heritage protection units stipulated in the document is not very well implemented, and the management agencies' support for the Choi Lei Fut project units is far from satisfaction; the survival and development of Choi Lei Fut Gyms or promotion units mainly include organizing martial arts competitions, recruiting learners, participating commercial martial arts performance, and participating Tv show, etc. Only a few project units mainly promote martial arts for the purpose of pursuing non-commercial interests. Finally, the gym directors' hope for increased government support, including the establishment of special funds, strengthening of inherited talent training, and continuous improvement of the survival and development mechanism, highlights the need for a more comprehensive approach to supporting Choi Lei Fut. This suggests that the government could consider a range of measures to support Choi Lei Fut, including financial incentives, training programs, and policy reforms, to ensure its long-term sustainability. By addressing the challenges faced by gym directors and implementing a comprehensive support package, the government can play a critical role in preserving and promoting this valuable cultural heritage.

4.1.3. Inheritors of Choi Lei Fut

Based on the literature, there are currently no state-level ICH inheritors of Choi Lei Fut, but there are 4 provincial-level inheritors of heritage, 4 municipal-level inheritors, and 5 other unnamed inheritors. The municipal-level inheritors all reside in Foshan City, Guangdong Province, with two provincial-level inheritors also in Foshan City, and only two provincial-level inheritors in Jiangmen City and Guangzhou City, respectively (Hu and Cai, 2017). As one of the state-level ICHs, the total number of its provincial and municipal-level inheritors is far from adequate. According to the survey data of Choi Lei Fut inheritors, the overall protection status of Choi Lei Fut is not optimistic. Especially since the COVID-19 pandemic prevention and control has become "normalized" in recent years, the survival status of Choi Lei Fut has become more challenging. This is mainly reflected in the shrinking population of practitioners, the lack of successors, the scarcity of individuals proficient in the art, and the masters' inability to teach the art to for their livelihood. If the current situation is not improved, Choi Lei Fut will face the embarrassing situation of losing its heritage. Therefore, the inheritors hope that the government authorities and the society will pay increasing attention to the protection and development of Choi Lei Fut, so as to avoid losing the inheritance of the Choi Lei Fut ICH project in this generation.

4.1.4. Choi Lei Fut gym students

According to the interview data of Choi Lei Fut gym students, 60% of them learn Choi Lei Fut because they love martial arts or sports, and 75% of them learn Choi Lei Fut because they need to strengthen their bodies. 56.6% of them know that Choi Lei Fut is one of state-level ICH projects. In terms of evaluating the promotion effect of Choi Lei Fut, 62.5% of them think they are "satisfied". Most of the learners think that Choi Lei Fut is more effective in physical practice but it is not suitable for attack and defense. 57.5% of the learners think that the facilities and venues for Choi Lei Fut are not desirable. The problems in the process of instructing Choi Lei Fut mainly focus on having too many people in the class, the teaching content is not comprehensive, the teaching primarily focusing on practice routines, and rarely covering related martial arts medicine or martial arts philosophy; it is worth noting that 83.7% of the participants are optimistic about the promotion prospects of Choi Lei Fut. This positive outlook, combined with their awareness of its status as a state-level ICH project, indicates that there is potential for Choi Lei Fut to gain wider recognition and support in the future. To capitalize on this potential, stakeholders could consider implementing marketing and promotion strategies that highlight the unique value and cultural significance of Choi Lei Fut, while also addressing the concerns and needs of its practitioners.

4.2. Overall impact of the COVID-19 pandemic on the survival and development of Choi Lei Fut

During the epidemic, the public activities of Choi Lei Fut almost hit the "pause button", and the survival and development of Choi Lei Fut faced a great challenge. Our group conducted research on the survival and development of Choi Lei Fut during the epidemic and summarized it from the following three perspectives.

4.2.1. Overall impact of the epidemic

According to the questionnaire data, 66.6% of the respondents thought that the epidemic, which lasted for three years, has been a negative impact on the survival and development of Choi Lei Fut. There are 37.5% of respondents who think that the epidemic has not had a very significant impact on Choi Lei Fut. It is worth noting that 17.8% of the respondents thought that the epidemic had a positive impact on the survival and development of Choi Lei Fut. The overall attitude data were statistically and analytically analyzed using SPSS 27 software, with the status of the respondents as inheritors as the independent variable and the impact of the epidemic on Choi Lei Fut as the dependent variable for cross-tabulation analysis, and the results showed that the higher the level of the inheritors, the less obvious the perception of the impact of the epidemic on Choi Lei Fut; at the same time, the higher the level of the inheritors, the lower the percentage of those who believed that the epidemic had a negative impact on Choi Lei Fut; Secondly, Cross analysis in statistics were conducted using the survival mode of Choi Lei Fut as the independent variable and the impact of the epidemic on Choi Lei Fut as the dependent variable, and the results showed that the negative impact of the epidemic on Choi Lei Fut was mainly reflected in apprenticeship activities and participation in commercial performances.

4.2.2. Impact of the epidemic on economic income

In terms of the impact of the COVID-19 pandemic on the survival of Choi Lei Fut and the economic income of its practitioners, the Choi Lei Fut inheritors agreed on the "impact of the epidemic on their practice of Choi Lei Fut" mainly in terms of activities such as teaching in the gym and going out for performances. The results of the question "Why did Choi Lei Fut not function normally during the epidemic" were analyzed and found that about half of the respondents believed that Choi Lei Fut could not function normally because of the restrictions on large scale performance and instructing activities. The impact of the epidemic has made life increasingly difficult for most practitioners who rely on performing and teaching as their main source of income. According to the sample data, only 10% of the respondents believe that they are "not affected by the epidemic and can engage in normal activities". Of the total sample, 30% of the gyms had been out of business for

2-4 months, and 20% of the gym had been out of business for more than 3 months.

4.2.3. Impact of the epidemic on psychological state

Due to the impact of the COVID-19 pandemic, home quarantine from the epidemic has caused a sharp increase in mental stress and negative emotions such as anxiety and emptiness (Chen and Li, 2020). Accordingly, the impact of the epidemic on the lives and emotions of the practitioners of Choi Lei Fut should not be ignored. Due to the epidemic, many public performances and apprenticeship activities of Choi Lei Fut were forced to cancel or postpone, so 66.6% of the respondents found it hard to accept emotionally and felt sorry and sad; 20% of the respondents thought that the inability of Choi Lei Fut to carry out normal daily activities had affected their hobbies. Thus, Choi Lei Fut is a very important part of the daily life of ICH practitioners, and the epidemic has undoubtedly exacerbated the negative feelings of Choi Lei Fut practitioners. At the same time, despite the emotional vulnerability shown by Choi Lei Fut practitioners during the epidemic, the respondents were still very confident about the future of the Choi Lei Fut heritage. 84.5% of the respondents were confident about the future of Choi Lei Fut, believing that it would develop similarly or even better than it did before the epidemic. As one of the government administrators said in an interview: "The impact of the epidemic on the survival and development of Choi Lei Fut is generally temporary. During the epidemic, it is a good opportunity for everyone to practice their internal skills by not engaging in large-scale activities and living in isolation at home. It gives us more time to review and think about the innovation and development of Choi Lei Fut, which undoubtedly has positive significance for the development and inheritance of Choi Lei Fut."

4.3. Countermeasures from Choi Lei Fut practitioners

During the epidemic, Choi Lei Fut ICH practitioners took a variety of self-help measures and received help from several groups in the community. In addition, the digital media platform was fully utilized to promote and disseminate Choi Lei Fut in order to seek a sustainable path for Choi Lei Fut.

4.3.1. Self-assistant measures of Choi Lei Fut inheritors

Due to various reasons such as social development and cultural integration, the survival of Choi Lei Fut is not optimistic, and with the superimposed effect of factors such as epidemic prevention and control, the sustainable development of Choi Lei Fut is facing great challenges. Since the implementation of "normalization" of the epidemic, Choi Lei Fut inheritors and gym directors have given full play to their subjective initiative, using practical actions to actively carry out self-assistance in order to reduce the negative impact of the epidemic on the inheritance and development of Choi Lei Fut. The concept of "subjectivity and authenticity" is used to describe the subjective motivation of ICH practitioners to realize and transmit ICH values in interaction with others and the environment (Chen and Li, 2022). Choi Lei Fut inheritors are actively exercising their subjective initiative for self-assistance, which is undoubtedly beneficial to the sustainable development of Choi Lei Fut. The interviewees indicated that they are carrying out self-assistant measures in various ways to cope with the adverse effects of the epidemic on Choi

Lei Fut. After analyzing the data, it was found that provincial-level inheritors were more active in carrying out self-assistance than actual municipal-level inheritors, and the higher the level of the inheritor, the greater the sense of responsibility. Respondents also had the experience of seeking help from the society and the cultural authorities.

4.3.2. Helpful measures from social groups

In addition to the active self-assistant measures of inheritors and Choi Lei Fut gym directors, the government and social groups also provide additional assistance to the survival and development of Choi Lei Fut. Based on the results of the questionnaire survey, the main assistant measures from external sources are: internet and media (15.5%), government administration (45.6%), ICH protection centers (30%), and other social teams or individuals (9.8%). Most of the inheritors and gym directors considered the social support measures "very good" and "relatively good", while 10% considered them "not so good". In comparison, the community, especially the management, has been more supportive of the provincial Choi Lei Fut inheritors, but less supportive of the unnamed Choi Lei Fut inheritors. In response to the analysis of the inheritors' needs, support from the government administration is particularly important, with the top three support measures ranked in order: policy support from higher management (87.5%), financial support (tax cuts, subsidies, etc.) (75%), and network media publicity (62.5%). According to the interview data, one of the inheritors believed that the main reason for not receiving support from the government administration was that "the threshold of the government administration's support policy is a bit high and cannot be implemented for smaller gyms", and appealed to "the government administration to treat them equally and further strengthen their support efforts". Therefore, governmental and social support measures need to be continued, and the support for the inheritors of Choi Lei Fut needs to be strengthened.

4.3.3. Role of digital media platforms

According to a report released by UNESCO in 2021, digital technology and social media are being programmed as new channels for the revival and dissemination of ICH. With the development of the times, new media digital technology in China is developing rapidly, and the development of digital media technology has brought new opportunities for the survival and development of Choi Lei Fut. Based on the questionnaire data, digital media technology has a positive effect on the inheritance of Choi Lei Fut: 65.7% of the respondents believe that it has a "certain positive effect" and 16.4% believe that it has a "great effect". One unnamed inheritor interviewed felt that digital media had a "very big role" in the development of Choi Lei Fut. The study listed the use of some mainstream social media in the dissemination of Choi Lei Fut. The results show that respondents usually advertise and promote Choi Lei Fut mainly through short video platforms such as WeChat (72.5%), Tik Tok (70.9%) and Microblog (51.6%). The ways and means of spreading Choi Lei Fut among the Choi Lei Fut learner group are more diversified, such as Microblog, QQ, gym forums and RED. Overall, most of the inheritors believe that digital media has positive significance for the spread of Choi Lei Fut, but at the same time they also believe that since Choi Lei Fut's survival and

development lies in apprenticeship activities and group performances, media online communication plays a smaller role in the commercial value of Choi Lei Fut under the epidemic, but a larger role in spreading the cultural influence of Choi Lei Fut. Please see **Table 3** for the data on the use of new media platforms by the interviewees.

New Media Types	Proportion of respondents using (%)							
	Inheritors	Directors of gym	Government administrators	Choi Lei Fut learners	- Total (%)			
	75	50	33.3	77.5	72.5			
Tiktok	25	20	41.6	81.2	70.9			
Microblog	25	33.3	16.6	56.2	51.6			
Kwai platform	0	20	8.3	28.1	24.7			
QQ	25	33.3	33.3	26.2	25.8			
Various forums	0	20	0	28.1	25.2			
RED	0	10	0	18.75	16.6			
Others	25	20	16.6	15.6	15.6			

Table 3. Data of the interviewees using new media to spread Choi Lei Fut.

4.4. Factors influencing the sustainable development of Choi Lei Fut

Combining the questionnaire survey and interview data, the factors affecting the sustainable development of Choi Lei Fut are mainly policy support, propaganda and dissemination, financial investment, inheritors' training, management attention level and regulation improvement, and this research result is basically consistent with Zhang's (2017) study. In addition, this research also found that the cultural living space and epidemic had an impact on the sustainable development of Choi Lei Fut. The following is an analysis of the four most important factors that affect the sustainable development of Choi Lei Fut.

4.4.1. Lack of successors to the Choi Lei Fut

First of all, the current inheritors of Choi Lei Fut are shrinking, and their ideas are relatively narrow. Although governments at all levels now attach great importance to the inheritance and protection of the traditional intangible cultural heritage, Choi Lei Fut belongs to the traditional art category of ICH, and its inheritance is characterized by "fragility", "learning from others" and "long-term". Without special protection, it is easy to lead to the downsizing of the inheritance population of Choi Lei Fut, and it is impossible to achieve effective inheritance and protection. According to the director of Hongsheng gym of Choi Lei Fut, the total number of learners in their hall is nearly 10,000, but few of them devote their time and energy to learning and studying martial arts, and most of them are not proficient in martial arts (Hu and Cai, 2017). Based on the questionnaire data, 80% of the learners think that they are not good at learning and cannot really grasp the essence of Choi Lei Fut, and cannot undertake the heavy task of inheritance. With the continuous development of modern society, most young people are afraid of hardship and unwilling to learn, and the interviewees (15%) who are proficient in martial arts have entered the middle and old age and have no energy to undertake the

inheritance, which has caused an embarrassing situation that there is no successor to Choi Lei Fut talent training.

4.4.2. The shrinking of cultural survival space

The cultural space for the inheritance and development of Choi Lei Fut is downsizing. 63.6% of the inheritors and directors the martial arts gym believed that Choi Lei Fut routines were mostly inherited by apprentices or oral transmission, and the efficiency of their inheritance depended on the cultural space Every festival celebration, Guangdong province will hold some temple fairs and other activities to display and inherit Choi Lei Fut in the atmosphere of activities, so as to add happiness to the festival. However, at present, this kind of cultural space is gradually disappearing, the pace of society and life is speeding up, and the adverse impact of epidemic prevention and control, the mass base of this public performance is gradually disappearing, and most people have gradually lost interest in this kind of performance, which also causes the inheritance and development of Choi Lei Fut to be in a very awkward situation.

4.4.3. Lack of publicity and dissemination channels

Choi Lei Fut has a single way of transmission, which is not conducive to the wide spread of Choi Lei Fut. There are many ways to spread culture, such as educational publicity, entertainment activities, media publicity, commercial activities, etc. (Jiang et al., 2023). But for Choi Lei Fut, first of all, its "vertical transmission" performance is insufficient. In a short period of time, one-sided oral propaganda has failed to really penetrate the inheritance of cultural connotation, concepts, values and norms into the hearts of contemporary people. Secondly, its "horizontal communication" is also not up to the standard. The reason is that it should be combined with the trend of contemporary development, combined with different regional elements, so that it can be more in line with the aesthetics of the public, take its essence and discard its dross for development. If there is cultural input, it must be supplemented by output. According to the questionnaire data, 86.3% of the respondents believe that Choi Lei Fut culture is extensive and profound, and should continue to be carried forward. It can be seen that effective and reasonable dissemination of culture has become a "compulsory course" of Choi Lei Fut. In addition to communication, protection is also an extremely critical element.

4.4.4. Negative impact of the epidemic

Finally, the epidemic situation has brought severe challenges to the sustainable development of Choi Lei Fut. As one of the "victims" of the epidemic, Choi Lei Fut pressed the "pause button" from propaganda to inheritance. The past prosperous scene has been broken, and the Choi Lei Fut gym is faced with the situation of stopping training, stopping training, etc. Just like the current school students' online classes, they can not get real teaching and play a real role in driving and influencing. The "stop" of the Choi Lei Fut gym due to the epidemic has greatly affected the learners' progress in learning Choi Lei Fut, as well as its development and inheritance.

5. Recommendation based on key informants

The research carried out by our research group revealed various practical problems faced by Choi Lei Fut in the process of survival and development since the outbreak of the epidemic. First, the inheritance and transmission of Choi Lei Fut is relatively simple; Second, inheritance is faced with the dilemma of lack of successors; Third, Choi Lei Fut is facing the urgent demand for market recovery and expansion; Fourth, the protection and assistance to Choi Lei Fut is relatively limited, and there is no effective assistance mechanism for all sectors of society; Fifthly, the epidemic situation has brought great realistic challenges to the survival and development of Choi Lei Fut. On the whole, the survival and development of Choi Lei Fut are facing severe tests and challenges, and the protection and inheritance of Choi Lei Fut exposed during the epidemic is even more serious. In order to achieve sustainable development of ICH, awareness of ICH among local people, empowerment of ICH practitioners, and balanced development between tourism development and ICH transmission are necessary (Kim et al., 2019). In addition to that, key informants of Choi Lei Fut need to propose effective countermeasures and suggestions for the sustainable development of Choi Lei Fut based on their respective positions. Figure 1 shows a systematical framework for improving the sustainable development of Choi Lei Fut based on key informants.



Figure 1. Systematical framework for improving the sustainable development of Choi Lei Fut based on key informants.

5.1. Inheritors

As direct factors to promote the sustainable development of Choi Lei Fut, the inheritor of Choi Lei Fut and the directors of the Martial Arts gym should actively play its subjective initiative and enthusiasm. The subjective initiative of inheritors of ICH is the basis for the sustainable protection and inheritance of ICH (Cheng and Li, 2020). The subjective initiative of the inheritors of traditional skills is a kind of ability that can be inspired to help Choi Lei Fut develop and innovate continuously in adversity. The results of interview survey show that the subjective initiative of Choi Lei Fut practitioners has been demonstrated to some extent, but they have not received sufficient attention. 77.5% of the respondents said they could take self-assistance measures to deal with the living difficulties. The inheritors of Choi Lei Fut and the directors of relevant martial arts gym should, with an inclusive and

open mind, actively use external resources and the advanced technology of digital media to explore the development path of "new media + intangible cultural heritage"; The inheritors are encouraged to constantly explore and innovate the survival way of Choi Lei Fut according to the market needs, explore more communication channels and business models, and form the innovative development path of Choi Lei Fut by means of "Choi Lei Fut + tourism", "Choi Lei Fut + cultural innovation", "Choi Lei Fut+research", etc.

5.2. Government administrations

As the government department in charge of ICH, it is necessary to set up a special protection fund for Choi Lei Fut and issue relevant supporting policies. By 2021, the budget of ICH protection funds announced by the national financial department is 772.98 million RMB (Central People's Government of the People's Republic of China, 2020). The special funds established by the state provide a strong guarantee for the protection and development of ICH. The cultural field is one of the fields that were first affected by the epidemic, but it is also the field that received the latest budget support (China Economic Network, 2020). Secondly, in the specific use of funds, the categories of ICH should be screened and divided. For example, Choi Lei Fut belongs to the traditional art category of ICH. Its self-development mainly depends on mass performances and group teaching behavior, and the epidemic has a relatively large impact on it. According to the survey data, half of the inheritors said that they had not received any financial assistance, and 75% believed that the social support measures had not formed a strong mechanism. One inheritor appealed: "I hope that the government departments will issue positive financial support policies and put them into right place. I hope that people from all walks of life will actively pay attention to and understand Choi Lei Fut, so that Choi Lei Fut can be passed on in a healthy and good way." Under the realistic background of "normalization" of epidemic prevention and control, a special fund for "relief of ICH" should be set up to solve the inheritance project of Choi Lei Fut, which is in urgent need of financial assistance. At the same time, local governments should also take an active part in providing convenience and policy support for inheritors to carry out inheritance activities. For example, Department of Culture and Tourism in Gansu province has granted more than 3 million yuan in advance to inheritors of ICH for carrying out relevant inheritance activities during the epidemic.

5.3. Social organizations

The sustainable development of ICH is a public undertaking that requires extensive participation of the society. It requires all sectors of society to play their respective advantages and assume corresponding responsibilities (Zeng and Chen, 2015). Choi Lei Fut, as a state-level ICH project, can hardly be inherited for a long time only depending on the efforts of the superior authority departments and inheritors. Therefore, it is necessary to integrate the strength of government departments, inheritors, enterprises, social teams and the people to form an ecological mechanism of "government support, inheritors play, and people help". In terms of the establishment and use of special funds, government departments should lower the threshold and expand the scope of benefits, so that all Choi Lei Fut practitioners can obtain the help from government departments; Social organizations and commercial institutions should give full play to their respective advantages to help Choi Lei Fut practitioners improve their digital media creation quality and promotion skills. For example, "Wonderful Craftsmanship" is a company engaged in helping inheritors of ICH create short video content, providing one-stop services including text planning, shooting, editing and dissemination. The heads of Choi Lei Fut gym should play active role to cooperate with different level of educational institutes to implement the "Cooperation between gyms and educational institutes" (Han, 2020) model and create a market-oriented path of mutually beneficial cooperation. Choi Lei Fut master or inheritor should take initiative to enter colleges and universities to teach learners martial arts, and at the same time, spread martial arts cultural values and enhance cultural confidence.

5.4. Digital media operators

The increasing development of digital media technology has brought new opportunities for the cultural value of Choi Lei Fut, the mode of dissemination and the way of acceptance. The deep integration of Choi Lei Fut and digital media can break through the limitations of time and space, and people can experience the cultural connotation and philosophy of Choi Lei Fut through various media terminals. At the same time, the two-way interaction mode of digital media expands the attention and participation of the public and enables the sharing and co-creation of Choi Lei Fut. 72.6% of the respondents believe that digital media platforms have a positive effect on the survival and sustainable development of Choi Lei Fut. Therefore, the majority of Choi Lei Fut examinees should actively integrate digital media technology with Choi Lei Fut in all aspects, through popular short video sharing, online performance and live streaming, etc., to enhance the interpretation of Choi Lei Fut's cultural content while attracting the general public to participate in the dissemination and transmission of Choi Lei Fut. In the context of "normalization" of epidemic prevention and control, Choi Lei Fut can be publicized, taught and passed down through the Internet, multimedia and self-media, and other information technology methods, and it has the advantages of speed of dissemination, wide dissemination channels and long retention time. The competent authorities can invite professional institutions and people to help NRM practitioners carry out training on short video planning, copywriting design, short video shooting and editing, and new media marketing in order to help them master the methods of digital media promotion (Jiang, 2022). And many short video platforms should also actively attract the corresponding call to strengthen the attraction and content gate-keeping of Choi Lei Fut works to improve the quality of short video creation.

6. Conclusion and future research

The results of this research show that, firstly, the survival of Choi Lei Fut is facing great challenges, mainly the lack of inheritors, the low level of public attention and understanding, the declining population of practitioners, the lack of successors, the serious loss of skills, the limited way to promote martial arts programs, the lack of cultural connotation, the conservative ideas in the culture of the martial arts and the current open market environment, as well as the narrow path of survival and development. Second, the epidemic has have a wide and profound impact on the interviewed group of Choi Lei Fut inheritors. In particular, it is worth noting that, in addition to the negative impact, the epidemic has also had a positive impact on the inheritance and innovation of Choi Lei Fut; third, the various methods and measures adopted by the inheritors and the government administration in response to the difficulties faced by Choi Lei Fut in its survival and development have demonstrated the rich and diverse initiative of the inheritors and the advantages of new media technology in facilitating the cross-border development of ICH (Jiang et al., 2020); finally, in the context of the impact of various factors such as the market economy and the superimposed effect of the "normalization" of epidemic prevention and control, the preservation and transmission of Choi Lei Fut is still in a complex and changing situation.

While the study sheds light on the initiatives undertaken by inheritors and government authorities to address these challenges, it is important to acknowledge its limitations. Firstly, the sample size may be relatively small, limiting the generalizability of the findings. Secondly, the study focused primarily on key informants and may have missed perspectives from other key informants, such as the general public or cultural tourists. Thirdly, the study was conducted during a specific time period and may not fully capture the dynamic and evolving nature of Choi Lei Fut's survival and development.

To address these limitations and build upon the current research, we suggest several areas for future study. Firstly, a larger and more diverse sample could be employed to provide a more comprehensive understanding of Choi Lei Fut's challenges and opportunities. Secondly, qualitative methods such as participant observation or ethnographic fieldwork could be utilized to gain deeper insights into the lived experiences of practitioners and other stakeholders. Thirdly, longitudinal studies could track the development of Choi Lei Fut over time, capturing changes and trends in its survival and promotion.

Furthermore, future research could explore the intersection of Choi Lei Fut with other forms of traditional Chinese martial arts, examining the shared challenges and opportunities faced by these cultural heritages. Additionally, the impact of globalization and cultural exchange on Choi Lei Fut's preservation and transmission could be investigated, exploring the potential for cross-cultural collaboration and innovation.

Finally, we emphasize the need for continued research on the effectiveness of various measures aimed at promoting Choi Lei Fut's sustainable development. This includes evaluating the impact of government policies, media campaigns, and community initiatives on raising awareness and fostering interest in this cultural heritage. By addressing these limitations and exploring these areas for future research, we can contribute to the ongoing effort to preserve and promote Choi Lei Fut for generations to come.

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