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Young practitioners' attention to health Qigong on video-based social media: a qualitative study of online Baduanjin learning

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Introduction: Health Qigong is rooted in Chinese national culture, boasting a unique movement pattern and distinctive health-preserving value. Traditional national health Qigong, represented by Baduanjin, has attracted a large number of young practitioners. Against the backdrop of digital media, this study explores the motivation for young people's engagement with online Baduanjin, their emotional responses, and the subsequent behavioral paths of practice from a youth perspective, aiming to explain the reasons behind the "revival trend" of Baduanjin among young groups.

Methods: Based on the Stimulus-Organism-Response (SOR) theoretical framework, this study adopts an inductive qualitative content analysis approach, focusing on young practitioners. Keywords were searched on Bilibili, a social media video platform, yielding 39,410 Baduanjin-related comments. Additionally, semi-structured interviews were conducted with 11 practitioners aged 18–28. The comments and interview data were coded separately for triangulation and presented jointly in the results section.

Results: By collecting and analyzing Bilibili comments on Baduanjin videos and interview transcripts from practitioners, a theoretical model centered on the core category "young users' participation in online Baduanjin practice" was constructed. Practitioners' participation is mainly driven by two core dimensions: (1) Baduanjin content-related factors: perceived benefits, practicality and credibility, practice risks, and multi-dimensional comparison, which are partially associated with cultural familiarity; (2) Platform and external context-related factors: platform affordances, academic stress stimuli, celebrity influence, and social support. Emotional attitudes are formed after attempting practice and are positively correlated with practitioners' expectations of Baduanjin's effects. Subsequent practice behaviors exhibit three trajectories: sustained practice, abandonment, and resumption after suspension.

Conclusion: This study argues that against the backdrop of social media platforms serving as a social infrastructure, young users' participation in online Baduanjin is a process jointly driven by content characteristics, platform cues, and contextual factors. Through changes in emotions and self-efficacy, this process ultimately leads to diverse participation behaviors. As a traditional national fitness activity with cultural resonance and social adaptability, Baduanjin provides valuable theoretical implications for promoting sustainable health behaviors among modern people. It can serve as a carrier of traditional Chinese "health-preserving" cultural knowledge, facilitating the effective dissemination of national fitness activities.

1 Introduction

As the Chinese public places growing emphasis on physical and mental health, traditional Chinese sports, as a vital component of China's National Fitness Program, have been playing an active role in fostering the public's awareness of fitness and healthy exercise habits (Wei, 2017). Meanwhile, the advancement of internet technology and the popularization of smart mobile devices have provided strong platform support for the public to learn about and practice traditional national sports, sparking a "national trend fever." Traditional national sports represented by Health Qigong have attracted widespread attention from young groups. As of 2023, the total playback volume of Baduanjin-related content on Bilibili (video-based social media) has exceeded 32 million time (Zhenyu, 2024). On Xiaohongshu, the topic "#ChangesAfterCollegeStudentsPracticeBaduanjin" has received over 300 million views (Cu, 2024). A growing trend of young people learning Baduanjin has emerged on social media. Why has Baduanjin "gone viral" on online social media platforms? Why do young people choose to practice this traditional national health qigong? As an important component of traditional Chinese national sports, Baduanjin—a form of health qigong—centers on health preservation, aiming to enhance physical fitness, prolong life, prevent and treat diseases, and thereby maximize individuals' physical and mental health (Li et al., 2014; Zou et al., 2018). Numerous studies have explored the responses of diverse populations who practice Baduanjin through hands-on learning, concluding that practicing Baduanjin contributes to enhancing people's overall health (Chen et al., 2012; Hsu et al., 2022). In particular, for young groups such as college students, empirical studies have shown that practicing Baduanjin can improve their physical fitness and stamina in a simple and gentle manner, help alleviate stress and regulate emotions, thereby enhancing young people's self-efficacy and overall quality of life (Zheng et al., 2013).

While previous studies have confirmed the benefits of Baduanjin for human health and development, it was not until it emerged as an effective post-COVID-19 rehabilitation method that Baduanjin truly gained attention from young groups (Li et al., 2015). Propelled by social media dissemination, it has attracted more young people to participate in and learn about it. As a fitness form rooted in culture, Health Qigong boasts adaptability and inclusiveness, along with distinct national characteristics (Liu et al., 2025). Currently, young people mostly learn Baduanjin through online follow-along practice via videos. Meanwhile, numerous studies have explored online fitness, including its intervention effects on participants' health behaviors. Glynn et al. (2014) confirmed the effectiveness and practicality of online fitness for users' engagement in physical activity through empirical research. Yu and Song (2024) further found that online fitness significantly promotes users' willingness to engage in physical exercise and their experience outcomes. The usefulness, convenience, functional evaluation, and technical quality of online platforms are the main factors influencing Generation Z users' participation in online fitness. Wang et al. (2025) developed a user experience evaluation scale and found that social interaction and perceived usefulness directly affect participants' satisfaction; the convenience of online fitness platforms can enhance users' perception of

platform usefulness, which in turn influences the quality of physical exercise. From the content dimension of online fitness, taking "fitness celebrities" as an example, their social attractiveness, physical attractiveness, task attractiveness, and the quality of course content directly promote users' willingness to exercise (Li et al., 2023).

Most existing studies on online fitness have focused on modern fitness contexts, fully discussing participants' behavioral mechanisms, including psychological changes (Chen et al., 2024). However, research involving traditional national fitness forms—especially health-preserving Health Qigong—remains relatively scarce. Are the findings of the former equally applicable to the field of traditional national fitness? On social media platforms where young users are the primary demographic, there is a high level of discussion and participation in practicing Baduanjin. Therefore, this study collects comment texts from online Baduanjin practice videos and combines them with interviews about young practitioners' experiences. From a youth-centric perspective, it adopts a qualitative research approach and constructs a research framework based on the Stimulus-Organism-Response (SOR) theory (Pandita et al., 2021). This study explores the motivations, emotional attitudes, and behavioral tendencies of young groups participating in Baduanjin practice, attempting to explain the complexity of young people's health behaviors in the digital media era. Specifically, it addresses two research questions:

1. In the context of social media, what motivates young users to choose Baduanjin practice?
2. What is the process of young groups' participation in Baduanjin practice, and what factors influence it?

The results of this study hold certain significance for understanding how young people perceive and engage with traditional health-preserving Qigong, as they relate to the modern development of traditional national fitness (Hou, 2023). The research will separately analyze young people's motivations and behavioral responses in Health Qigong practice through comments and interviews. Additionally, it will conduct comparative analysis based on the textual content from these two dimensions and propose relevant suggestions to promote young people's learning of Baduanjin.

2 Materials and methods

This study is a qualitative research project, employing a thematic analysis approach to analyze feedback from young people participating in Baduanjin practice. The study first collected comments and posts related to Baduanjin practice from social video platforms, and then conducted semi-structured interviews, interviewing young Baduanjin practitioners online via audio.

2.1 Data sources and samples

To confirm the typicality of young people learning Baduanjin, this study chose Bilibili as the source of comment data. This platform, primarily used by Generation Z users, is one of the most

concentrated online communities for young people in China (Zha, 2023). Analyzing user comments on this platform may reveal the relevant views of young Chinese people on Baduanjin. We set November 10th to December 15th, 2024 as the search window, using "Baduanjin" as the keyword, and collected 34 Baduanjin-related videos and 39,410 comments on the Bilibili platform. The videos were manually selected, and the comments were filtered using a Python-based Chinese HIT stop word dictionary, resulting in 32,308 valid comments for 31 Baduanjin videos. The filtering flowchart is shown in Figure 1.

To comprehensively understand the reasons why young people participate in practicing Qigong and their subsequent feedback, we conducted semi-structured interviews after collecting comments, using a snowball sampling method. Inclusion criteria included individuals aged 18 to 28, with cumulative practice duration of two months and each session consisting of 15 to 20 min of Baduanjin practice (Mei et al., 2023). In the first round, we contacted three respondents via WeChat voice messages, conducting three rounds until meaning saturation. A total of 11 young practitioners (5 men and 6 women) were interviewed. Specific characteristics of the participants are detailed in Table 1.

All interviewees used a uniform interview guideline. The questions in the interview guideline (Appendix S1) were designed based on the SOR (Stimulus-Attitude-Behavior) framework (Arora, 1982). The interviews began with participants describing their experiences practicing Baduanjin through videos, focusing on three core research directions: (1) Why did you choose to practice Baduanjin? (What challenges and difficulties did you encounter during the practice?) (2) How do you view this form of (online) exercise? (3) How has practicing Baduanjin changed your original life? (Changes in behavior and directions for improvement in online Baduanjin learning).

2.2 Encoding process

We transcribed the interview text from audio recordings. Since comments and interviews are two different text types with significant differences in form and content, we used the natural language model BERTopic for encoding to reduce the subjectivity of manual coding. This model is based on an unsupervised method of semantic embedding and can discover themes and cluster them in text units of different granularities (such as comments, posts, and interview segments) (Kaur and Wallace, 2024). We split the interview text into short sentences and used this model to independently model the comment and interview texts. We used the same embedding model (paraphrase-multilingual-MiniLM) and similar parameters (top_n_words = 10–15) to mine semantic themes in the two types of texts.

2.3 Analysis

This study follows the inductive qualitative content analysis process of Elo and Kyngäs (2008). To avoid hierarchical confusion between different data sources, we processed commentary content and interview content separately. The specific process was as

follows: First, based on the BERTopic model, we extracted the "meaning units" of the youth group practicing Baduanjin, and compared them with the original text to reduce errors. Second, we integrated the "meaning units," grouping similar codes into subcategories, further merging them into categories, grouping similar codes into subcategories, integrating them into core categories, and then further refining the subcategories to clarify the division of core categories (Chen et al., 2023).

3 Results

3.1 Cognitive differences regarding Baduanjin exercise

Based on thematic clustering results from comments and interviews, this section aims to analyze the commonalities and differences in cognition presented in following Baduanjin videos at both online and offline levels. Motivation and cognitive themes are elaborated from two dimensions: content cognition and platform/external environment perception.

3.1.1 Similarities and differences in thematic understanding of Baduanjin content

The study found common ground between two types of corpora—comments and interviews—in their understanding of Baduanjin. Perceived benefits, perceived risks, and perceived practicality were three common themes extracted from both dimensions. However, the two types of data also showed different emphases. Comments included perceptions related to the credibility of video sources, while interviews focused more on comparisons across different fitness activities (aerobics, yoga, weightlifting, etc.), such as time expenditure and required space. Regarding external contextual cues, both comments and interviews shared the perception of platform availability. However, comments also included pressure from exams and assignments, as well as the presentation of Baduanjin, such as image quality. Interviews, on the other hand, emphasized the influence of social relationships (family and friends) on Baduanjin. Table 2 shows the thematic distribution of cognitive dimensions in the comment texts.

Of the 32,308 comments related to Baduanjin practice, 8,669 (26.8%) explicitly mentioned Baduanjin content. Practicality was the most frequently mentioned aspect (32.9%, 2,860/8,699), with breathing rhythm coordination being the most common (23.6%, 2,049/8,699). This indicates that young practitioners are most concerned with the operational information when practicing Baduanjin online—how to master the movements and breathing rhythm. Secondly, in terms of perceived benefits (26.3%, 2,280/8,699), "improved sleep," "stress relief," and "reduced physical discomfort" were the main points. Judging from the comment topics, young practitioners hope to promote physical and mental health through effective Baduanjin training.

Some of the interview topics (Table 3) are the same as the commentary topics. Young practitioners' motivations for trying Baduanjin are partly based on its ability to alleviate the aftereffects of COVID-19, making it a viable healthy exercise option. Additionally, Baduanjin is easy to learn, requiring minimal
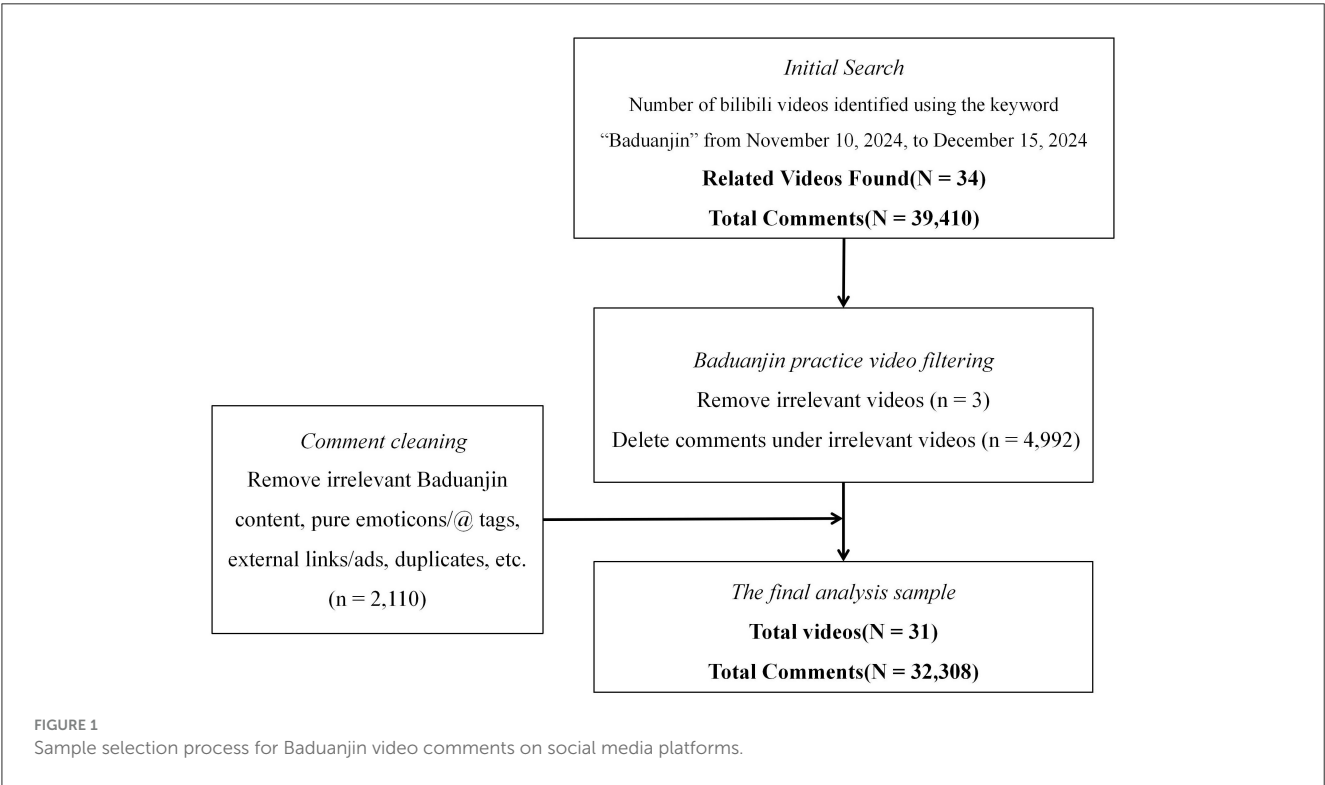
FIGURE 1
Sample selection process for Baduanjin video comments on social media platforms.

TABLE 1 Basic information of the respondents.

Serial number	Participants	Age	Occupation	Accumulated practice hours	Genders
1	B1	18	Undergraduate student	5 months	Male
2	D1	24	Master's degree student	6 months	Female
3	P1	29	Company employee	24 months	Female
4	G1	26	Company employee	7 months	Female
5	J1	23	Reporter	24 months	Male
6	T1	26	Teacher	5 months	Male
7	D2	24	Master's degree student	2 months	Female
8	B2	19	Undergraduate student	3 months	Male
9	P2	28	Company employee	18 months	Female
10	T2	29	Teacher	6 months	Female
11	G2	25	Company employee	12 months	Female

time and space. Respondents cited its ease of learning, simple movements, minimal physical requirements, and lack of strict limitations on location and time as reasons for their preference.

Because of my job, I often have to sit down to write, which has caused me a lot of pain in my neck and shoulders. I've tried treatments, but they haven't been very effective. Later, I saw on Xiaohongshu (a Chinese social media platform) that Baduanjin could relieve the pain. The movements are quite simple, and I can practice them at home without leaving home, which is very convenient, so I decided to try learning it (J1).

Unlike the commentary surrounding Baduanjin, the interview materials reveal a more individualized selection logic. Some practitioners stated that they had previously followed live fitness broadcasts or used fitness apps to create workout plans, but the intensity or weightlifting caused pain and discomfort, making it difficult to continue. Based on this, they chose Baduanjin, with its gentle and slow movements, through multi-dimensional comparisons (intensity, time and location, and physical tolerance), considering it a more suitable exercise method for their needs. The interview materials demonstrate the personal motivations for learning Baduanjin, details of this "selection process" that are difficult to reveal in public commentaries.

I used to follow live workout videos on apps, but I couldn't keep up for more than 10 min because they were too intense. However, the entire Baduanjin exercise only takes 20 min, and I feel refreshed and invigorated afterward, without any discomfort. Therefore, the

TABLE 2 Distribution of topics involving content awareness in comment texts.

Knowledge about Baduanjin	Total number of comments	Percentage	
		Content-based percentage (%)	Overall percentage (%)
Content-based	8,669	100 (8,669/8,669)	26.8 (8,669/32,308)
Perception of content usability	2,860	32.9	8.8
Breathing rhythm	2,049	23.6	6.3
Coordination of movement and commands	811	9.3	2.5
Perceived benefits	2,280	26.3	7.0
Promotes sleep	695	8.0	2.1
Improves stress and mood	538	6.1	1.6
Relieves joint/muscle pain	432	4.9	1.3
Regulates menstrual irregularities	239	2.7	0.7
Has weight loss effects	233	2.6	0.7
Other (improves gastrointestinal issues, etc.)	143	1.6	0.4
Content credibility	1,764	20.3	5.4
Recommended by the general administration of sport of China	790	9.1	2.4
Recommended by traditional Chinese medicine doctors	453	5.2	1.4
Video production quality	1,172	13.5	3.6
Beautiful music	658	7.5	2.0
Clear visuals	514	5.9	1.5
Exercise risk awareness	593	6.8	1.8
Breathing difficulty	317	3.6	0.9
Joint/Muscle discomfort	276	3.1	0.8

TABLE 3 Partial list of interview topics.

Categories	Subcategories	Codes
Content revenue perception	The physical discomfort was relieved	Treatment of COVID-19 sequelae
		Relieve knee pain
		Relieve stress
Perception of content usability	Baduanjin exercise is convenient and easy to learn	Practice anytime
		Practice anywhere
		Fewer movements

Eight Pieces of Brocade is more suitable for me, and I've stuck with it ever since (D2).

Regarding the credibility of the content, the interviews did not focus on whether the practice videos were officially or authoritatively produced. Some practitioners felt there was no significant difference in the creators of Baduanjin videos on the platform, but rather they paid more attention to the quality and details of the videos themselves, such as whether there were accompanying instructions or movement markers to help young practitioners learn and master the movements more quickly and make their breathing rhythm smoother during exercise. Through browsing the comments, they learned the importance of accuracy in Baduanjin movements. If the movements are not performed correctly, it is difficult to achieve the best training results.

When I was learning on Bilibili, I didn't pay attention to whether the videos were from the General Administration of Sport of China, because they were all pretty much the same. I was more interested in watching videos of Baduanjin to see if there were any movement prompts or clear commands. If these were clearly marked in the video, it was easy to learn. However, if you couldn't keep up with the rhythm of your breathing or didn't perform the movements correctly, it wouldn't be effective (D1).

Based on Table 4, the interviews revealed that some practitioners' understanding of the benefits and practicality of Baduanjin can be traced back to their cultural familiarity. Because Baduanjin is a physical and mental exercise rooted in the Chinese nation's "health preservation" culture, it has a clear affinity and cultural identity for young practitioners raised locally. They can quickly establish an understanding framework based on their past experience, comprehending, and grasping the basic knowledge

TABLE 4 Distribution of topics related to the platform/external environment in the comment text.

Platform support and environmental stimuli	Total number of comments	Percentage	
		Content-based percentage (%)	Overall percentage (%)
Based on the platform/external environment	7,861	100 (7,861/7,861)	24.3 (7,861/32,308)
Platform system availability	2,550	32.4	7.8
Video playback rate	1,472	18.7	4.5
Video mirroring adjustment	1,061	13.4	3.2
Video bullet comment prompts	717	9.1	2.2
Stimulation of learning pressure	2,521	32.0	7.8
Physical education homework	1,725	21.9	5.3
Meeting exam requirements	796	10.1	2.4
Celebrity attraction	2,090	26.5	6.4
Performances at the Chinese New Year Gala	1,303	16.6	4.0
Participation of internet celebrities	787	10.0	2.4

of training Baduanjin. This makes it easier to generate trust and a sense of security, and stimulate a sense of belonging.

I had never practiced Baduanjin before, but I had seen elderly people in my neighborhood practicing it. Later, when I saw tutorials online, my first reaction to the commands was: this is a manifestation of "natural balance" in Chinese culture. For me, Baduanjin felt like something quite familiar (T2).

3.1.2 Thematic differences based on external environmental stimuli

Besides content cognition, the study found that young practitioners' willingness to engage with Baduanjin was influenced by certain external contexts, thereby generating or strengthening their willingness to participate. Both scenarios showed that platform availability (such as speed and mirroring adjustments and bullet screen prompts) enhanced the learnability of Baduanjin videos. Interviews revealed the influence of social relationships, with interest being sparked by friends and family. Meanwhile, comments highlighted the impact of academic pressure and celebrity involvement (Table 4).

Of the 32,308 comments mentioning Baduanjin practice, 7,861 (24.3%) explicitly addressed the support of platform systems and external stimuli for Baduanjin training. Platform availability was the most frequently mentioned aspect (32.4%, 2,550/7,861). Within availability, the discussion on Baduanjin video playback speed had the highest proportion (18.7%, 1,471/7,861). Because young practitioners use online videos for Baduanjin practice, they are most concerned with adjusting video playback to meet their needs. Adjusting the playback speed or mirroring can make the movements clearer and easier to learn. The accompanying subtitles also lower the comprehension threshold. Some practitioners also consider the bullet comments and Q&A in the comment section as key points. Secondly, in the dimension of external stimuli, academic pressure accounted for 32%, with most young practitioners being students whose relevant courses are Baduanjin. Therefore,

TABLE 5 Distribution of topics related to the platform/external environment in the comment text.

Categories	Subcategories	Codes
Platform availability	Video adjustment and platform support	Adjustable video speed
		Comments and answers
		Bullet screen support
Preferring offline learning	Seeking professional guidance	Teacher demonstration is needed
		Unsatisfied with online practice movements

they choose to learn Baduanjin online to cope with exams or assignments. The least common topic was celebrity attraction (26.5%, 2,090/7,861). By inviting celebrities to demonstrate the exercises during the famous traditional Spring Festival Gala, the program effectively attracted some fans to try Baduanjin training. Our interview materials (Table 5) revealed that although both interviews and comments showed young practitioners' concern about the availability of the platform system, and to some extent, the platform's technical support lowered the entry barrier for Baduanjin training, practitioners also believed that online practice could not replace offline instruction, and that there was a gap between the two. Young practitioners preferred face-to-face, in-person teaching.

Online videos of Baduanjin can fill the gap of lacking offline guidance, but because the videos are for all participants, they are not targeted. Although there are bullet comments and comments for practitioners to communicate with each other and solve problems through question and answer, this is only "self-exploration" among participants. Young practitioners cannot effectively adjust some movement details even with the technical support of the platform.

Online practice of Baduanjin can be done slowly by playing in slow motion or adjusting the mirror image, and you can also check

FIGURE 2
Thematic presentation of different corpora based on content and context.
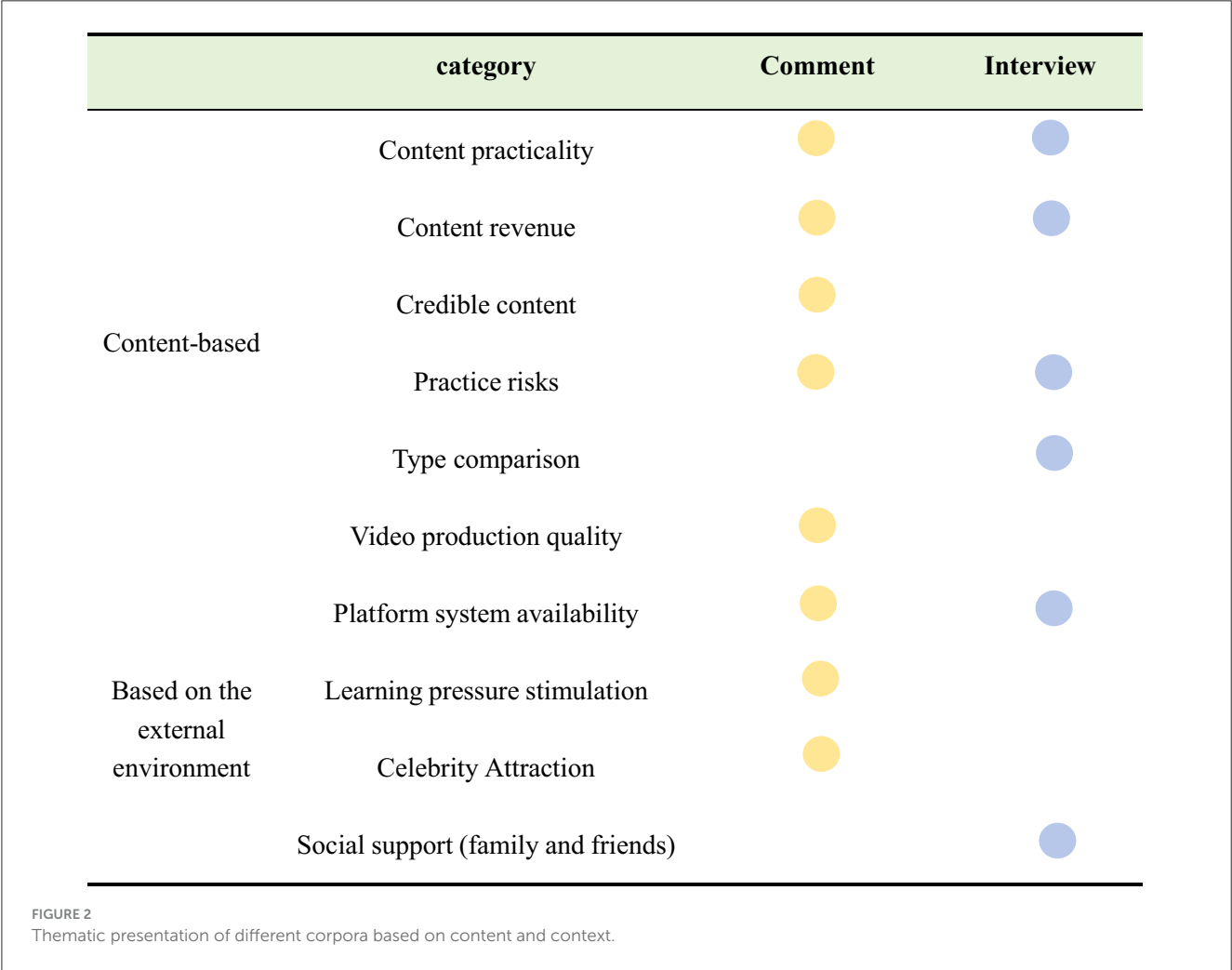
the video comments or bullet comments, which usually provide answers. It's quite convenient, but one-on-one instruction from an offline teacher will yield better results (T2).

Secondly, in external contexts, academic pressure from school exams or assignments drives young practitioners to passively participate in learning Baduanjin, rather than actively and voluntarily. Some practitioners are also drawn to Baduanjin because it is popularized by celebrities practicing it, attracting followers who respond to the celebrities' calls to imitate it. Furthermore, interviews revealed that the family, as the core environment for youth development, allows Baduanjin learning to be naturally integrated into young people's daily lives based on interactions within family and social relationships. This parent-child, friend-like practice provides a form of companionship and supervision for continued exercise, leading them to view Baduanjin as a shared family health management tool rather than a "personal task," and expanding from individual exercise to the mutual transmission of health knowledge.

I didn't even know what Baduanjin was at first. My mother recommended it to me; she told me it was good for my health and started practicing with me. Later, we agreed to practice Baduanjin together every morning. Sometimes, when I see some health tips, we share them with each other (T1).

The two types of corpus combinations (Figure 2), respectively demonstrate the commonalities and differences between online reviews and interviews regarding the cognitive themes of Baduanjin. The two types of texts show a high degree of consistency in terms of content usefulness, benefits, practice risks, and platform affordances, indicating that these common cognitive themes are key factors triggering young practitioners to participate in Baduanjin training. Review texts tend to follow a "visible features—trial—instant feedback" approach, emphasizing significant clues such as content credibility, video production quality, academic pressure triggers, and celebrity appeal—a quick "try it out if it looks good" approach. Interviews, however, point to a cognitive process built upon individual assessment based on real-world environments. Beyond common themes, interviews involve comparing Baduanjin with other fitness types (intensity, duration, space, etc.) to choose a suitable fitness method, evaluating its "embeddability" through multi-dimensional weighing. Secondly, social support (guidance from family and friends) lowers the psychological barrier to first-time attempts, saving time and effort required for initial information gathering. Commentary and interviews can be understood from two dimensions as different directions in the process of young people's understanding of Baduanjin. Commentary captures significant information and

TABLE 6 Thematic distribution of emotional themes in comment texts.

Emotional attitudes related to Baduanjin	Total number of comments	Percentage	
		Content-based percentage (%)	Overall percentage (%)
Emotional attitudes related to Baduanjin	5,049	100 (5,049/5,049)	15.6 (5,049/32,308)
Positive attitude	4,057	80.3	12.5
Looking forward to it	1,770	35.0	5.4
Relaxation	1,284	25.4	3.9
Grateful	1,003	19.8	3.1
Negative attitude	992	19.6	3.0
Anxiety	476	9.4	1.4
Frustration	318	6.2	0.9
Other (anger, etc.)	198	3.9	0.6

provides immediate feedback, while interviews are based on personal experience after evaluation. Together, they constitute mutual verification and complementarity in young people's understanding of Baduanjin.

3.2 Regarding emotional attitudes toward practicing Baduanjin

The emotional attitudes referred to in this study are those generated by young practitioners after attempting to practice Baduanjin. After encoding the two types of corpora, comments and interviews, it was found that the comments mainly consisted of brief expressions of immediate emotions, which can be basically divided into two emotional tendencies: positive and negative (Table 6). The emotional themes of the interviews could show the formation and evolution of attitudes and emotions before and after attempting to practice in more detail. We believe that this has an important role in whether young practitioners are willing to continue their subsequent practice.

Of the 5,049 comments on the attitude and emotion theme, positive emotions accounted for the highest proportion, reaching 80.3%, with expectation being the most prevalent (35%, 1,770/5,049), while negative emotions accounted for approximately 19.6% (992/5,049). Positive emotions, most commonly "expectation" and "relaxation," reflect practitioners' expectations of significant benefits from learning Baduanjin and the emotional release and relaxation they've experienced through practice. These emotional attitudes are related to the practicality, benefits, and platform availability of Baduanjin. Conversely, negative emotions, primarily "anxiety" and "frustration," are frequently associated with academic exam pressure and perceived risk. The comments suggest that young people generally hold a highly positive attitude toward Baduanjin. Interview findings (Table 7) indicate that young practitioners primarily acquire knowledge about Baduanjin through social media, and their initial training attitude is mainly one of expectation for results.

TABLE 7 Attitude themes before attempts.

Categories	Subcategories	Codes
Expected results	Try practicing based on benefits.	Physical benefits of actively trying
		I was pleasantly surprised to find a suitable way to exercise
		Try to relieve physical discomfort

However, in the interview transcripts, the emotional attitudes of young practitioners of Baduanjin were not as prominent as those expressed in the commentaries. The interview materials revealed a more restrained, instrumental emotional orientation. Most respondents positioned Baduanjin as a gentle aerobic exercise, and their judgment of its efficacy was cautious and uncertain, showing a more neutral emotional tendency. They believed that its effects might not be as described on online platforms. The "thank you" in the comments was often interpreted in the interview narrative as polite interaction under the norms of the Baduanjin "community," rather than a direct emotional response to the efficacy of Baduanjin. The interviews presented a "cautious positivity." Young practitioners maintained an open attitude toward Baduanjin, but their continued emotional investment and willingness to practice were based on the results of their practice.

I'm not sure if the Baduanjin is as good as people say online. My own feeling is that it has some effect, but it's not significant, which might be because I haven't practiced it long enough. It's not particularly amazing; it (the Eight Pieces of Brocade) is just a method of exercise, and you shouldn't have too high expectations (G1).

In the section on negative emotions, the interview topics focused on the frustration and disappointment caused by the inability to accurately master the movements in the early stages of practice due to a lack of guidance or effective prompts. This is because the movements of Baduanjin need to be coordinated with breathing, and if the two are not coordinated and there is a lack of immediate correction, it will cause a sense of insecurity and

TABLE 8 Topic distribution of comment texts involving continued engagement/discontinuation behavior.

Participation in Baduanjin practice	Total number of comments	Percentage	
		Content-based percentage (%)	Overall percentage (%)
Participation in Baduanjin practice	6,898	100 (6,898/6,898)	21.3 (6,898/32,308)
Continued practice	4,331	62.7	13.4
Record practice days	3,953	57.3	12.2
Self-reminders	385	5.5	1.1
Interruption of practice	2,567	37.2	7.9
Insignificant training results	1,771	25.6	5.4
Preparing for course exams	796	11.5	2.4

a feeling of "not being able to learn/do it correctly." In addition, because Baduanjin does not provide visible physical changes, practitioners cannot determine whether Baduanjin is effective for them, thus leading to a sense of aversion.

The Baduanjin consists of eight movements. Initially, I thought I could learn it by watching videos, but it's not that simple in practice. I'm not even sure if the Baduanjin is effective because I don't have a teacher. I just practice by referring to videos, and I have to figure out how to adjust the movements on my own or by reading comments. But I'm still very frustrated and don't want to learn anymore. I only practice once every few days (B1).

3.3 The continuity and interruption of Baduanjin practice behavior

Based on the combined effects of Baduanjin cognition, participation attempts, and emotional attitudes, young users exhibited three main behaviors in Baduanjin practice: continuous practice, cessation of practice, and resumption of practice after a pause. As mentioned above, comments and interviews were stratified and coded separately. However, due to the limited information in comments, they could not effectively reflect subsequent practice behavior; therefore, interview transcripts were used as the primary source of material. Firstly, thematic findings were extracted from the comment texts (Table 8). Young practitioners primarily used a "check-in" format in the comment section to record their daily practice and monitor their progress.

Of the 6,898 comments related to exercise behavior, the highest percentage (62.7%) expressed a desire for continued practice, with the most frequent discussion focusing on recording practice days (57.3%, 3,953/6,898). Practitioners used these records as external reminders, acting as "visible records" on public social media to motivate and incentivize them to achieve their goals. Conversely, 2,567 comments (37.2%) indicated discontinuation of practice. Discussions about this primarily centered on completing assignments or exams and the perceived lack of noticeable benefits, with practitioners explicitly expressing a reluctance to continue. Compared to the online platform, the interview transcripts (Table 9) further expanded the discussion of Baduanjin's participation in practice to its integration into daily life. Some

TABLE 9 Behavioral themes of participating in Baduanjin practice.

Categories	Subcategories	Codes
Continue practicing	Lifestyle changes	Go to bed early and get up early
		Learning to balance
		Light diet
	Family guidance and supervision	Family members encourage each other
		Practice with elders
Give up practicing	The expected results were not achieved	Did not achieve weight loss goal
		Only relieve pain
	Risk perception	Unable to breathe during practicing
		Stomach pain during practice
Practice again after interruption	Family and friends guidance	Roommate led
		Mom leads the way in starting over
	Information push from social media	Social media algorithms drive

practitioners were willing to continue training because of its perceived health benefits, and their continued practice led to changes in their original lifestyles and habits, fostering a healthier lifestyle.

Since I started learning Baduanjin, I've developed a habit of going to bed early and waking up early, and I rarely stay up late. After completing a set of Baduanjin, I feel very energetic and don't get tired as easily as before; I'm full of energy all day. Furthermore, perhaps because of the long-term practice of Baduanjin, I now try to choose natural and light-tasting foods and avoid highly processed dishes (G2).

In the discussion of discontinuing exercise, we observed two main mechanisms: first, practitioners did not perceive significant benefits (such as pain relief, mood improvement, or physical enhancement) in the short term, leading to a sense of ineffectiveness

and discontinuation of practice. Second, because Baduanjin originates from Traditional Chinese Medicine (TCM), and Qigong focuses on "regulating breath, guiding qi, and circulating qi," the "disease-expelling" reaction—post-practice discomfort—can be interpreted as a bodily response to qi imbalance (Deadman, 2014). Without the guidance of professional TCM theory, practitioners cannot rationally understand their body's reactions, thus perceiving danger and choosing to give up. The first model echoes the "ineffectiveness-giveup" theme in the comments section, but the second model further reflects the unknown risks individuals face in practicing Baduanjin in real-world situations due to a lack of TCM knowledge.

I practiced Baduanjin for a while, but after completing one set, I started experiencing stomach pain. I have poor digestion, and I don't know if this is what Traditional Chinese Medicine calls a "healing crisis," so I stopped practicing (B2).

In the theme of resuming exercise after interruption, we found that the support of social relationships played an influential role. Some practitioners were encouraged to resume training by family or friends, reminding and supervising each other to practice together, making Baduanjin training a habit and integrating it into daily life.

I hadn't practiced for about 2 weeks due to my previous internship. One morning, my roommate pulled me together to start practicing again. From that day on, we agreed to remind each other every day, and now we practice at least three times a week, a more consistent frequency than when I practiced alone (P2).

Furthermore, online media algorithms play a connecting role in "re-exposure." Some practitioners believe that the opportunity to resume practicing Baduanjin was due to algorithms pushing Baduanjin-related information to them. Social media, based on the search history of young practitioners, periodically pushes information that users were previously interested in. This "accidental" information may rekindle practitioners' interest in training and bring Baduanjin back into their practice.

I practiced Baduanjin for a long time, but then I switched to yoga. However, Bilibili kept pushing Baduanjin videos to me. I think it was because I used to practice on Bilibili every day, so it was like a reminder to me. So I started training again (P1).

4 Discussion

This study is the first to analyze the motivation, attitudes, emotions, and subsequent training behaviors of young people participating in Baduanjin from the perspective of youth groups. The study argues that this process is comprehensive, and there are correlations between the influencing factors at each stage. Through independent analysis and joint presentation of texts from platform reviews and interviews with practitioners, multiple studies have found that young people have high perceived stress levels due to competitive pressure (Herbert et al., 2020), and actively seek out simple and feasible fitness exercises. Through the information they find, they form a basic understanding of Baduanjin. Under the combined influence of factors such as social support and technological availability, they try to participate in the exercise, and then form different emotional attitudes toward Baduanjin. These attitudes lead to three subsequent

behaviors: continued participation, cessation of participation, and resumption of participation after a pause. This process is also influenced by different external stimuli (Figure 3). First, young people's basic understanding of Baduanjin stems from the interaction of two main lines: content-based cognition (the benefits, practicality, and credibility of practicing Baduanjin) and stimuli from platforms or external contexts (academic pressure and guidance from relatives and friends, etc.). Second, based on this cognition, they make their first or short-term attempts at practice and form emotional attitudes toward Baduanjin based on the results (relaxation, surprise, anxiety, frustration, etc.). Finally, by combining the effects and attitudes of the former, they decide on subsequent practice behaviors: continued training, indicating that Baduanjin has been integrated into the practitioner's daily life and has changed the practitioner's original lifestyle through fitness, cultivating healthy living habits; interrupted training, because Baduanjin cannot be effectively integrated into daily life and the benefits to the practitioner are not obvious, leading the practitioner to give up practicing directly; and resumption of training after a pause, triggered by offline guidance from relatives and friends or algorithmic information pushes from online media, leading to the restart of practice behaviors. Young practitioners, influenced by a combination of factors including understanding the functional characteristics of Baduanjin (visible benefits and practicality), platform technical support, and external environmental stimuli, begin their initial training. The resulting emotional attitudes become the decisive factor in resuming practice: when expectations align, they maintain training; however, when negative emotions arise or expectations are not met, they stop. After a break, peer or family support, along with re-exposure information pushed by the platform's algorithm, can, to some extent, help practitioners resume training. We believe this process may reveal how Baduanjin became popular among young people.

Existing research on Qigong primarily focuses on the "medical and health aspects," exploring its effects on stress relief or as an adjunct therapy for young people (Gu et al., 2021). These studies center on three core themes: "physical changes, emotional changes, and psychological changes," and demonstrate that continuous training increases "practice familiarity" and "interdependence," confirming Qigong's accessibility, immediate effects, and ability to foster a sense of connection (Chrisman et al., 2009). However, in the digital age, how modern young practitioners perceive and understand the actual process of participating in Baduanjin exercises requires further investigation. Unlike modern fitness forms, Baduanjin is a type of aerobic exercise characterized by gentleness, slowness, and relaxation. It is an important way of practicing traditional Chinese medicine health preservation concepts (Chen et al., 2023). As one of the "symbols" representing traditional Chinese culture, Baduanjin relies on the cultural logic of "qi-meridians" and Yin-Yang and Five Elements in traditional Chinese medicine. Through the coordination of "intention-form-breath," "qi" flows throughout the body. This fitness concept actually corresponds to the most prominent concepts of "following nature" and "harmonious coexistence" in traditional Chinese culture. These "cultural codes" provide a basic foundation for young users to understand and practice (Akman, 2018). In the post-COVID era, social media has re-edited this previously "overlooked"

FIGURE 3
Framework of the training process for youth participation in Baduanjin.
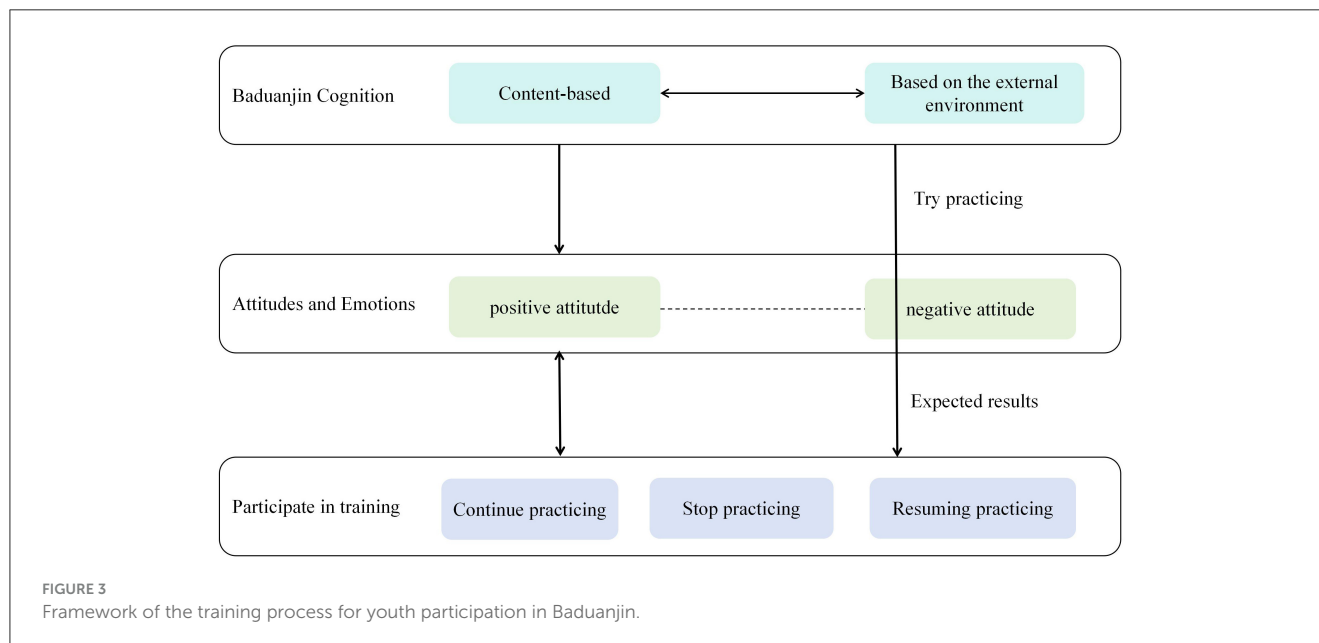
form of fitness, highlighting the health-promoting and easy-to-learn characteristics of Baduanjin. Through the convenience and limitlessness of the internet, young users can quickly and instantly access effective health information (Hsu et al., 2022). With the help of media platforms, Baduanjin has become a health exercise resource that is "accessible to everyone," completing its recoding process from a "traditional form of health preservation" to a "popular health symbol."

Baduanjin integrates traditional Chinese health preservation elements, providing a more acceptable and sustainable fitness alternative for young people, especially those who are health-conscious but find it difficult to endure strenuous exercise. Through Qigong practice, one can enhance proprioceptive awareness, promote mind-body integration and a sense of reality, thereby improving psychological wellbeing and life experience (Sheard and Davidson, 2023). Qigong is not only a physiological intervention (such as improving disease), but also a way to build a relationship between the self and the world through bodily perception. In the context of social media, the exercise behavior of young people has a more experimental character because the effects of Qigong training are too complex and vague to be easily categorized by individuals (Campbell and Campbell, 1997). Therefore, through social media networks, young practitioners can share and exchange their training experiences on the platform, forming a virtual learning space for Baduanjin online. This user-generated "weakly connected online learning community" structure and exchange content also promotes young people's basic understanding of traditional Chinese fitness qigong and encourages them to decide on their subsequent participation behavior after trying it. This process is constantly adjusted under multiple factors such as individual life, social interaction, and online media, reflecting the important practical value of Baduanjin as a traditional Chinese fitness form with full cultural adaptability and social resonance (Vilar, 2018) in promoting sustainable health behaviors among young people in the digital age.

5 Conclusion

This study, focusing on young people, systematically depicts the entire process of young practitioners' online learning of Baduanjin under the influence of social media, from initial contact to evaluation and participation. Placing this traditional ethnic fitness exercise within a digital media context clarifies the process from cognition and emotional attitudes to participation behavior. These findings highlight the following values: separately analyzing and then recombining commentary and interview texts avoids simply merging heterogeneous texts, improving explanatory validity; the "return to Baduanjin" among young people is not merely a product of a readily available digital environment, observable practice results, and accessible social and professional support. In the future, reducing the complexity of platform usage, quantifying benefits and effects, and providing appropriate social support will make it more likely that young people will transform Baduanjin into a long-term, sustainable healthy lifestyle. This data can also supplement the findings of quantitative surveys, thus providing a more comprehensive understanding of public participation in Baduanjin.

6 Research limitations

Due to time and resource constraints, the coding work in this study was completed using natural language modeling, which has advantages in semantic analysis (Ma et al., 2025). Comment texts and interview texts were analyzed separately and compared to supplement the study, providing a more comprehensive picture of the process of young people's participation in Baduanjin exercises. However, this study only collected feedback from those who participated in online Baduanjin practice on Bilibili and did not cover online Baduanjin participation on other mainstream social media platforms. Therefore, the application of the research results to other research scenarios should be

carefully considered. Secondly, the study did not delve into the role of emotional attitudes in adopting online Baduanjin practice. Future research could further explore the logical relationship between user emotions and adoption intentions, and investigate the participation behavior of social media users in fitness qigong across different regional cultures within the context of the cross-cultural dissemination of traditional Chinese sports.

Data availability statement

The original contributions presented in the study are included in the article/Supplementary material, further inquiries can be directed to the corresponding authors.

Ethics statement

The studies involving humans were approved by Ethics Committee of the School of Journalism and Communication, Wuhan Sports University. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

JC: Conceptualization, Methodology, Data curation, Writing – original draft, Writing – review & editing. YZ: Investigation, Resources, Software, Writing – review & editing. DZ: Supervision, Funding acquisition, – review & editing.

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The author(s) declared that this work was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fcomm.2025.1715030/full#supplementary-material

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