Chapter 7

Smart Health Facilitator: Chinese Consumers' Perceptions and Interpretations of Fitness Mobile Apps

Huan Chen

Abstract A phenomenological study was conducted to explore how Chinese consumers perceive fitness mobile apps in their everyday lives. Twenty in-depth interviews were used to collect data. Findings suggested that the meanings of mobile fitness apps are multidimensional, dialectical, and multilayered. On the positive side, mobile fitness apps embody control, empowerment, and networked individualism which assist Chinese consumers in achieving their fitness goals, maintaining healthy lifestyles, and enhancing the quality of their lives. On the negative side, mobile fitness apps have a constraining effect, geographically and temporally speaking. Some participants even linked fitness app use to their feelings of loneliness. Practical implications were offered to mobile fitness app companies and health organizations.

Keywords Fitness mobile app • Chinese consumer • Qualitative research

7.1 Introduction

According to eMarketer (Statista, [2016](#)), there were more than 1 billion Chinese mobile phone users in 2015. The number of Chinese mobile Internet users has reached 695.3 million and 72.6% of the mobile Internet users in China live in cities (CNNIC, [2017](#)). Many such consumers—especially Chinese urban consumers—are intentionally or unintentionally integrating their smartphones into their everyday fitness and health routines by way of mobile fitness apps. For example, Keep, one of the most popular fitness apps in China, has more than 30 million users (Dahl, [2016](#)). Although data on mobile fitness apps use exists, to date no study has been conducted to examine how Chinese consumers perceive and experience those apps, and the broader social, and cultural changes these experiences may flag. Previous qualitative research on mHealth in China has focused on health education, chronic

H. Chen (✉)

College of Journalism and Communications, University of Florida, Gainesville, USA
e-mail: huanchen@jou.ufl.edu

disease management and texting for health, but not on more recent developments, such as smartphone-enabled health and fitness apps. Broader scholarship on fitness apps has been primarily quantitative and positivist in nature; little of the existing work on fitness apps explores their qualitative dimensions.

The current study is designed to fill this research gap. It not only extends existing scholarship but also holds important implications for fitness app development and for healthcare management. Its qualitative approach affords fitness apps developers with useful insights needed to tailor their products to Chinese consumers. It also holds the potential to inform Chinese healthcare organizations on how to use mobile fitness apps to help their patients manage their health and wellbeing.

7.2 Gaps in the Literature

A substantial body of scholarship dedicated to mHealth in China has begun to emerge in the recent years. This includes studies of health education, medication adherence, and appointment reminders (Corpman, 2013), the use of mobile technologies to extend health services to rural areas (Ni, Wu, Samples, & Shaw, 2014), and the use of mHealth for mental illness (Zhang, Song, & Bai, 2013). However, much of this research is yet to catch up with the rapid proliferation of smartphones across Asia. Therefore, little of this work focusses on social and cultural implications of fitness app use. Nor does the scholarship in fitness apps more broadly include much work on the qualitative dimensions of their use. Existing research on mobile fitness apps is dominated by quantitative work within a positivist framework of behavior change (Conroy, Yang, & Maher, 2014; West et al., 2012; Kranz et al., 2012; Chen & Pu, 2014; Millington, 2014; Lister, West, Cannon, Sax, & Brodegard, 2014). Conroy et al. (2014) found that the top ranked fitness mobile apps can be categorized as either educational or motivational, and the most common behavior change techniques used in those apps include providing information or demonstrating specific physical activities. West et al. (2012) examined the health and fitness mobile apps and found personal health and wellness, physical activity, and healthy eating apps to be the most represented categories. They studied the capacity of these apps to effect behavioral change and found that: (1) more than half of the apps are established upon predisposing factors which are primarily knowledge-based; (2) the most commonly used apps are those based upon enabling factors, such as teaching skills, tracking progress, or recording actual behavior; and (3) only few apps include reinforcing factors which are characterized by the provision of encouragement, evaluation, and the opportunity to interact with others.

Chen and Pu (2014) investigated the social incentives driving uses of mobile fitness apps and found that a mixture of cooperation and competition provides better social incentives than mere competition. Messages exchanged between participants cooperating with one another served to better motivate users than those exchanged among people competing with one another. Moreover, the more the users exchanged messages the better the results of their physical activities.

Millington (2014) qualitatively content analyzed eight prominent mobile fitness apps and found three major themes which are bettering the self, networked individualism, and mobility.

Studying the gamification of mobile fitness apps, Lister et al. (2014) found industry standards of effective gaming for fitness to be lacking. Stragier and Mechant (2013) surveyed consumers tweeting workouts activities which refers to the sharing of physical activities via social media such as Facebook and Twitter. A possible tweet of this would be “Just completed a 9.23 km run” or “Finished 30 min yoga practice today.” They found that community identification, receiving feedback, and sharing information positively influence attitude toward tweeting workouts, which in turn has a positive effect on their tweeting workouts behaviors.

This chapter seeks to extend current work on fitness apps; I contend that qualitative research that enhances our understanding of users’ perspectives is needed to better grasp some of the cultural and social implications of fitness apps’ proliferation in recent years. The current study explores Chinese consumers’ perceptions of fitness apps. It seeks to offer a rich description of mobile fitness apps from consumers’ point of view, thereby providing important contextual information needed to bring research of mHealth in China up to date with recent developments, and to contribute a qualitative dimension to existing work on fitness apps. A thorough understanding of Chinese consumers’ perceptions of fitness mobile apps also holds important implications for future app development and healthcare management.

7.3 Methodology

The question I address in this study is how Chinese consumers interpret mobile fitness apps as part of their everyday life. I used interpretative phenomenology analysis (IPA) to explore this question. IPA is a qualitative research method aimed at revealing the meanings a particular phenomenon holds for participants, and it involves the researcher interpreting the participants as they themselves interpret what is happening around them (Smith, Flowers, & Larkin, 2009). IPA has been widely applied in health research to explore a variety of topics (Smith, 1996; Fade, 2004; Brocki & Wearden, 2006). It is considered as a useful and valuable research method for understanding health care from the patient or service user perspective (Biggerstaff & Thompson, 2008).

According to App Annie (2016), the top fitness and health mobile apps in China include Keep, CoDoon, MiFit, Run, and Nike + Run Club, and indeed these apps emerge from the current study as significant to participants’ fitness regimes. Since the majority of the smartphone users are living in urban areas (CIW, 2015), the study targeted Chinese urban consumers, of at least 18 years old, who owned a smartphone, and were current fitness app users. Purposive sampling and snowball sampling guided recruitment of participants. The criterion for sufficient sampling is saturation, that is, the point at which no new concepts and themes emerge

(Corbin & Strauss, 2008). In total, 20 participants (eight males and twelve females) were recruited and participated in the study. Their ages ranged from 18 to 70 years and their experience with mobile fitness apps ranged from 2 months to 4 years (Table 7.1).

In-depth interviews were used to collect data. The in-depth interview is the most commonly used method in phenomenological investigation (Moustakas, 1994; Thompson, Locander, & Pollio, 1990). It is a powerful qualitative method of phenomenological investigation because it “gives us the opportunity to step into the mind of another person, to see and experience the world as they do themselves” (McCracken, 1988, p. 9). It only sets broad parameters for the discussion, leaving participants free to tell their own stories. A loosely structured, discursive conversation is a good way to access participants’ conscious experiences and allow their realities to emerge. Specifically, online in-depth interviews via WeChat were used to collect data. Previous research (Deakin & Wakefield, 2014) suggests that although there are benefits and drawbacks, online interviewing via social media messaging software can be useful to supplement face-to-face interviews. WeChat has a video chatting function. All the in-depth interviews were conducted using video chatting. In this way, the researcher could interact with her participants and notice their nonverbal cues, just as in offline face-to-face interview situations. Each interview lasted approximately 30 min. To provide an accurate record of participants’ comments, all the interviews were audio recorded and professionally transcribed.

Focused on the central phenomenon under investigation and broad research question, an interview guide was developed to reveal the meanings the participants constructed for mobile fitness apps and to initiate and facilitate conversations with participants. The main topics discussed during the conversations include participants’ general workout routines, their selection and adoption of mobile fitness apps, their usage and experiences of mobile fitness apps, advantages and disadvantages of mobile fitness apps, and their suggestions for future improvement of mobile fitness apps. Following the emergent design tradition in qualitative research (Creswell, 2013), I changed and adjusted specific questions during each in-depth interview informed and guided by my participants’ responses.

Four major themes emerged from the data set, which I discuss below. One theme refers to various ways in which the participants selected and adopted fitness apps, during the process they made decisions on which mobile apps to download either paid or free and to integrate them into their everyday workout routine. Such variations unfolded along the lines of singular use (use of one app) versus multiple use (downloading and use of multiple apps). Another referred to the various ways apps enabled people to control and order their lives. On the one hand, some participants spoke of their use of apps to motivate a life-changing fitness regime. On the other, others spoke of the limitations of apps’ amenability to a variety of fitness practices. A third theme referred to people’s different perceptions about the apps’ capacities to improve their quality of life. Some participants talked about how using fitness apps improved their state of mind and general happiness, while others expressed concerns over becoming too dependent on the apps. A final theme referred to the

Table 7.1 Profile of participants

Name	Age	Gender	Education	Occupation	Apps	Length
Jean	39	Female	MA	Owner of a casual restaurant	My Asics, Adidas train and run, Connect, Run, Codoon	4 years
Christina	34	Female	MA	Public relations specialist	FitTime Keep Nike training	2 years
Linda	33	Female	MA	Teacher	Keep	4 months
Henry	38	Male	BS	IT technician	Codoon Run	4 years
Jade	35	Female	MA	Editor	TulipSport	2 years
Alpha	32	Male	BA	Salesman	Codoon Digital scale Keep	3 years
Lily	34	Female	BA	Director	动动	1 year
Peter	18	Male	High School	Undergraduate student	Keep	4 months
Wendy	19	Female	High School	Undergraduate student	Keep	2 months
Nancy	23	Female	BA	Graduate student	Fit time Body build up Insanity Nike + 轻+ 大姨妈	2 years
Sunny	53	Female	AA	Accountant	WeChat Health	6 months
Mandy	26	Female	BA	Account executive	Keep Nike + Codoon	5 months
Leo	70	Male	BA	Retired	WeChat Health Codoon	2 years
John	19	Male	High school	Undergraduate student	Nike training Keep	2 years
Tom	35	Male	BA	Graphic designer	Nike running and training Adidas Running and training Keep	3 years
Susan	26	Female	MA	Teacher	WeChat Health	6 months

(continued)

Table 7.1 (continued)

Name	Age	Gender	Education	Occupation	Apps	Length
Sam	21	Male	High school	Undergraduate student	Keep	9 months
Jenny	24	Female	BA	Secretary	Codoon Keep	1 year
Jolie	27	Female	MA	Teacher	FitTime Keep Nike running	2 years
Benny	34	Male	Ph.D.	Assistant professor	My Asics, Adidas train and run, Connect, Run, Codoon	1 and a half year

various capacities of apps to connect people to one another or, conversely, make them feel lonely. Some participants stated that they felt fitness apps did little to connect those seeking to take part in conventional team sports, such as basketball or football. Others enjoyed the online socializing that took place among those using a particular app.

7.4 Singular Versus Multiple Use

The interviews reveal participants selected and adopted mobile fitness apps in various ways. One group of people ($n = 10$) selected and downloaded one fitness app and used just that one app. A second group of people ($n = 3$) selected and downloaded multiple mobile fitness apps but used only one app; a third group ($n = 7$) selected, downloaded, and used multiple mobile fitness apps. The participants' fitness and health goals and knowledge of fitness and technology seemed to play a role in this selection and adoption process. In general, people with clear fitness goals have more knowledge of fitness and technology, and tended to choose and use multiple mobile fitness apps. Participants' level of comfort with mobile technologies was also a factor determining the number of apps they used as the following quotes from Sunny, Nancy, and Jean show:

I only use WeChat Health to track my steps, and I don't use other mobile fitness apps. (R: Why not?) I feel that other mobile fitness apps are complicated and I don't have a strong fitness goal such as losing weight like others. ... I know iPhone has a health app. But it requires too much personal information. I don't want to input too much of my information. I'm a little concerned. So I don't use it either (Sunny, female, 53, accountant).

I tried a lot different mobile fitness apps. If I know there is a new app, I will download and try it. If I don't like it, I will then delete it. ... The only app that I have been using for two years is the period tracking app called “大姨妈” (big aunt) (Nancy, female, 23, graduate student).

I use multiple mobile fitness apps in my daily life. I'm using My Asics, Adidas Train & Run, Connect, Run, and Codoon. You know, each of these apps performs different functions for me. My Asics tells me all the statistics of my health, like my heartbeat, sleep quality, my pulse, and so forth. Adidas Train & Run shows me all my running data. It not only tells me how long I run and tracks my running path. It also informs me about other specialized data such as my average pace, heart rate, average altitude and so forth (Jean, female, 39, owner of a casual restaurant).

Previous research revealed some personal and social incentives that may motivate consumers to use and experience fitness mobile apps (Chen & Pu, 2014; Millington, 2014). For instance, Chen and Pu (2014) emphasized the social incentives of competition and corporation while Millington (2014) focused on a broader personal incentive of bettering the self. The current study uncovers another important personal factor—the knowledge of fitness and technology as a possible motivational incentive for consumers to adopt mobile fitness apps. Compared to previous research (Chen & Pu, 2014; Millington, 2014), the incentive revealed in the current study is more self-oriented and specific, which brings some implications for both app developers and healthcare workers. One of the important implications is that app developers and healthcare workers need to take into account the various levels of technological literacy that exist among users when promoting and encouraging people to use mobile fitness apps. For example, app developers may design different versions of one mobile fitness app tailored to different user groups' needs. For users with little knowledge about fitness or lacking specific fitness goals, the version of the mobile app may embed more educational information of fitness knowledge and fitness goals to enhance users' literacy. Similarly, for users with rich knowledge of fitness and having specific fitness goals, the version of the mobile app may limit the educational content but add more advanced features and functions to help those users to meet their fitness needs in a more effective and efficient way. Healthcare workers should take patients' technology comfort level into consideration when recommending mobile fitness apps to their patients. For technology aversion patients, healthcare workers may show some easy-to-use mobile fitness apps to mitigate their stress and motivate them to try on those apps. By contrast, for technology savvy patients, healthcare workers should recommend mobile apps that better fit with their patients' healthy goals without worrying too much about technical issues they may encounter during their usage.

7.5 Apps that Afford Control Versus Apps that Constrain

According to the participants, the usage of mobile fitness apps on one hand offers them a sense of control; on the other hand, however, some participants felt that certain physical and geographical constraints inhered in fitness apps, and prevented them from using the apps in ways that fitted with their preferred fitness practices. The sense of control means better care of their health condition and body image, better time management, better knowledge of fitness, and ultimately a better life.

Many participants mentioned that mobile fitness apps helped them better track and monitor their daily physical activities, such as numbers of steps and duration of running time. Simply by seeing the numbers, they became more conscious of their health condition and are more motivated to work out and achieve their health and fitness goals. In addition, the participants also enjoyed the flexibility of mobile fitness apps that fits their everyday busy schedule. The participants also mentioned that mobile fitness apps helped to educate them about their health. Finally, they claimed that the apps facilitated their behavior change and formed a healthy life routine thus improving the quality of their lives. Henry, a 38-year-old IT technician, told the researcher that his workout and mobile fitness apps improved the quality of his life.

It's a long story. You know, I'm an IT worker. I work long hours. It is a very stressful career. After I had my second child, my wife quit her job and became stay-at-home mom. I was the only bread winner. I felt much more stressed. That was a few years ago. At that time, I felt that my health condition was not very good. I wanted to sleep all the time and felt dizzy at 4 o'clock in the afternoon. I realized I have to change to make my life better. So I downloaded Codoon and started running. I was an amateur runner back then. I had no knowledge about running. I run a short distance every day and Codoon tracked my running records. After running for a while, I felt that my condition improved. I joined the online community of Codoon and know many running lovers there. We shared our running experiences, communicated, and supported each other. My knowledge of running increased through those online exchanges. With my friends' encouragement, I decided to run a marathon. I first ran a mini marathon, and then 5 km marathon to 10 km marathon. Now I participate in marathon every year. During the process, I felt that I need more specialized and professional app. Therefore I downloaded Nike Running and later bought Garmin watch. ... Running not only improved my health condition but also helped with my mind. A few years ago, I didn't read books. I felt that I read too slow and can never finish reading a book. After my health condition is getting better, my brain seems improved as well. Now I'm reading much faster and I try to read a book every month. Since I benefited from my running experiences, I also encouraged my wife to run. Now, she runs an hour every evening after putting our children into bed. ... In summary, I'd say that running has changed my life and improved the quality of my life (Henry, male, 38, IT technician).

As is evident from the above quote, mobile fitness apps afford users a sense of control over their bodies and lives. Previous research suggests that one of the most important claimed benefits of mobile fitness apps is enabling clear, quantifiable, improvements in personal health (Millington, 2014). Findings of the current study offered a detailed, rich, in-depth, and thick description of this claimed benefit from consumers' own perspective thus materializing and concretizing the concept in the cultural context of China.

While some participants deemed mobile fitness apps to enable them to better manage their lives, other spoke of apps' limited capacity to fit with and enhance a diverse range of fitness practices. Some participants mentioned that the mobile fitness apps limited their outdoor activities. They pointed out that they have to watch videos and follow instructors via certain mobile fitness apps. Therefore, they can only exercise in indoor spaces such as their own houses or apartments. Other participants indicated that their workouts were constrained by limited options on mobile fitness apps. For example, some mobile fitness apps only offer a certain

number of exercises videos and others can only track certain kinds of workouts. Sam, a 21-year-old undergraduate student, and Wendy, a 19-year-old freshman both talked about the limitations of mobile fitness apps.

I can only use mobile fitness apps in my house or my dorm. I have to follow the videos via the apps. Sometimes, the videos require some equipment which I don't have at home. ... How to say, I work out not just for exercise but also to relax and have fun which I believe the mobile fitness app cannot offer to me (Sam, male, 21, undergraduate student).

I don't like Keep. (R: Why?) When I use Keep, I can only use it at home by myself. I'd like to go to gym. In gym, I can work out, talk to my friends, and listen to music. In addition, there are also professional trainers in the gym to help me with my training, When I use Keep, I can only figure out the skills by myself (Wendy, female, 19, undergraduate student).

Similar to previous research, the current study found that the perceived usefulness and benefits (Deng, 2013) as well as facilitating conditions (Zhang et al., 2013) are shaping Chinese consumers' evaluation of mobile fitness apps. Specifically, according to the participants, as revealed by the current study, the perceived usefulness and benefits means better care of their health condition and body image, better time management, better knowledge of fitness, and ultimately a better life while the facilitating condition refers to the overall affordance enabled by functionality of mobile fitness apps. In addition, the current study further revealed "control" as an essential factor that may facilitate Chinese consumers' usage and experience of mobile fitness apps. Thus, companies and healthcare workers should try to enhance consumers' sense or perceived sense of control when promoting and encouraging people to use mobile fitness apps.

7.6 Improved Quality of Life Versus Overdependence

Participants not only spoke of how the usage of mobile fitness apps helped them to lose weight, keep fit, and look better but also of the sense of empowerment that came from the improvement of their quality of life. They claimed that using mobile fitness apps challenged them, energized them, and helped them to gain mental strength. They also talked about how mobile fitness apps facilitated new kinds of social interactions. Leo, a 70-year-old retiree, discussed how exercise and mobile fitness apps helped him to live a better life.

After I retired, I have much more time to exercise and to achieve some fitness goals. ... Ten years ago, when I went to Grand Canyon and walked two hours, I felt exhausted. Last year, when I went to Los Glaciares National Park I walked the whole afternoon about 10 km and didn't feel very tired. ... I downloaded Codoon a couple of years ago. I saw my friend shared his walking statistics on WeChat moments. I was curious. So I asked him. He told me it was a mobile fitness app. So I downloaded it as well. (R: How does Codoon perform a role in your everyday workout routine?) You know, the Codoon could record the duration of your walk and track the routes of your walk. You can share the information on your WeChat. Since many of my friends are using Codoon, we monitor and support each other.

Sometimes, we will communicate with each other about our workout experiences on WeChat. ... Well, mobile fitness apps helped me to achieve my goal which is live a better life every day (Leo, male, 70, retiree).

While applauding the advantages of mobile fitness apps, the participants also showed concerns regarding the negative side of this new type of technology. In particular, the participants expressed their concerns about the possibility of overdependence on the mobile fitness app, and how that may limit their freewill and hinder that independence.

You know, I had my daughter three months ago. I need to lose weight quickly. So I downloaded Keep and used it everyday. Now I feel that I have to have Keep to guide my workouts. Without using it, I don't want to budge my body. So I'm wondering if I'm too dependent on it (Mandy, female, 26).

Previous literature on both mHealth and mobile fitness apps mainly focuses on analysis of services and apps (Conroy et al., 2014; West et al., 2012) or consumers' cognitive and attitudinal evaluation of those services and apps (Deng, 2013; Zhang et al., 2013). Although a couple of previous studies (Corpman, 2013; Li et al., 2014) discussed some societal and environmental conditions of mHealth penetration in the context of China, the current study supplemented the previous literature by uncovering the possible societal consequences of mobile fitness apps from the perspectives of Chinese consumers.

7.7 Loneliness Versus Belonging

The participants expressed differing opinions as to whether the usage of mobile fitness apps alienates people from their social groups, or whether it connects them to online communities, enhancing their sense of belonging. Some participants indicated that the mobile fitness app makes them feel lonely because they used it to exercise alone. For example, when Peter, a 19-year-old engineer undergraduate student, was asked about his mobile fitness apps usage experiences, he spoke of his feeling of loneliness when using the mobile fitness apps. Similarly, Wendy, a 19-year-old food science undergraduate student also described a sense of alienation when using the mobile fitness app of Keep using her experiences of gym workouts as a reference.

I feel lonely (when using mobile fitness apps), you know. I like playing basketball, soccer or badminton with my friends. Even for running, I'd like to run with my friends in the field on campus. We are having fun together. I don't like exercising just by myself. It makes me feel lonely (Peter, male, 19, undergraduate).

I sometimes use Keep. But I prefer to go to the gym if it is possible. Using Keep by myself makes me feeling alienated, you know. You work out by yourself in a limited space. ... When you go to gym, you can see many people working out with you. I also enjoy the loud music in the gym (Wendy, female, 19, undergraduate).

By contrast, some participants believed that the mobile fitness apps provide a portal for them to connect with like-minded consumers thus fostering a sense of belongingness and togetherness. For instance, Jade, an editor in a publishing house, vividly described how mobile fitness apps connect her with running mates and later they formed a closed social media group to communicate and support each other.

I'm using TulipSports ...Because I shared my running statistics on my WeChat moments via TulipSports, one of my friends introduced me to a closed WeChat group formed by running lovers. At the beginning, this WeChat group was established by a few Tsing Hua university graduates. It is a closed social media group. You can join it only by invitation. Because of this, the group members are relatively upscale. However, the group is very active. People communicate and socialize online all the time. Basically, they use numbers to socialize. You need to check in everyday by telling people how long you've run, swim, or ride. Based on the statistics people submit, there is a daily rank on the first page of the group. It is very interesting to see people compete with each other to be honored on the first page (Jade, female, 35, editor).

Previous research on mHealth and mobile fitness apps investigated the role mHealth services play in interventions to address mental illness (Li et al., 2014; Stragier & Mechant, 2013; Chen & Pu, 2014). The current study engages this work by highlighting some of the novel dimensions of the link between mobile technologies and mental wellbeing. Above we see how people not only perceive fitness apps as technologies that enable or constrain their ability to maintain fit and healthy bodies, but also affect their ability to be social. Some interviewees consider fitness apps to impede on the social, but others consider them to enhance it. The social aspect of fitness apps is important for apps developers and health services to take into account. As these interviews with users show, the social affordances of fitness apps depend on the user, highlighting the difficulty of ascertaining a known social impact of any one fitness app. The various responses recorded above highlight the importance of trialing particular fitness apps in any endeavor to provoke behavioral change around fitness practices in a given population.

7.8 Conclusion

This study explored Chinese consumers' understandings of mobile fitness apps. The study uncovered four major themes with regard to the meanings that the participants constructed for mobile fitness apps. The study has several important scholarly implications. First, it revealed the selection and adoption of mobile fitness apps to be a complex and dynamic process. Similar to the general adoption of mHealth (Deng, 2013; Zhang et al., 2013), Chinese consumers' selection and adoption seems to be influenced by perceived usefulness and benefits, external cues, and subjective norms. In addition, the study uncovered a number of individual factors that shape the selection and adoption process such as fitness goals, fitness knowledge, technology knowledge, and comfortable level with technology.

As an interpretative phenomenological study, one of the most important contributions of the current study is to reveal the lived meanings of mobile fitness apps in the lifeworld of Chinese consumers. Findings of the study suggested that the meanings of mobile fitness apps are multidimensional, dialectical, and multilayered. On the positive side, mobile fitness apps embody control, empowerment, and networked individualism which assist Chinese consumers in achieving their fitness goals, maintaining healthy lifestyles, and enhancing the quality of their lives. On the negative side, mobile fitness apps have a constraining effect, geographically and temporally speaking. Some participants even linked fitness app use to their feelings of loneliness.

The current study also has several practical implications. It offers valuable information for mobile fitness apps companies to better design their products. For example, based on the findings of the study, app developers may consider including and/or enhancing the functions of setting goals, disseminating educational information, and building fitness-themed online communities. When designing marketing communication campaigns and messages, the companies should emphasize how their products could help Chinese consumers to enhance control, gain empowerment, and feel as connected individuals.

The study also offers useful insights for healthcare organizations to use mobile fitness apps to help their patients to better manage their health and live a healthier life. For example, healthcare professionals should encourage their patients to adopt mobile fitness apps and increase the frequency of their daily usage of those apps. Healthcare professionals could also emphasize the individual, social, and cultural benefits of the usage of mobile fitness apps. In particular, the physicians should reinforce the message that the mobile fitness apps could help their patient to achieve a better health condition thus living a better life.

Several limitations should be noted. This research provided a snapshot in time of a dynamic phenomenon. Participants' interpretations are culturally contextualized and bound to be dynamic, changing as cultural meanings shift. Longitudinal data could provide additional insights into the interpersonal dynamics and microcultural characteristics of users' lifeworlds regarding this particular phenomenon. This study focused on Chinese consumers' interpretation of mobile fitness apps. Although the recruited participants are diverse in terms of demographics, the complexity and dynamics of the population mean that the collected data may not be able to reflect nuances and multiplicity of the rich meanings. For example, many of the participants in the current study are from big cities. Chinese users from small cities may have different interpretations and emphasize different aspects than those from the metropolitan areas. Future research may recruit a more diverse sample to reveal those nuances and dynamics. Furthermore, the mobile fitness app has gained popularity and penetrated different socioeconomic layers, and the user structure is becoming more diverse. Studies designed to explore the dynamics and variations among subcultures and subgroups of mobile fitness apps users should enrich our understanding of this particular phenomenon.

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