

# Acupunch Exercise Program Development and Feasibility Evaluation for Older Adults

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## Abstract

**Purpose:** The aim of the study was to develop the Healthy Beat Acupunch (HBA) exercise program and evaluate its feasibility for community older adults.

**Design:** Stage I: The Delphi technique was used to consult 16 experts to develop the program. Stage II: A preexperimental, one-group, posttest-only design was used to pilot-test the program feasibility with 31 older adults.

**Methods:** After 4 weeks of interventions, participants evaluated the program based on four criteria (simplicity, safety, suitability, and helpfulness) and responded to five open-ended questions.

**Findings:** The developed HBA program from Stage I includes three phases with 24 motions and takes 40 minutes to complete. Program feasibility in Stage II showed average scores ranged from  $8.84 \pm 1.32$  to  $9.97 \pm 0.18$ .

**Conclusion:** Both experts and elderly participants confirmed that the HBA program was simple, safe, suitable, and helpful to older adults.

**Clinical Relevance:** The HBA program provides older adults with a new set of exercise options.

**Keywords:** Acupoint stimulation; Acupunch; Exercise program; Jing-Luo theory; Older adults.

## Introduction

Regular exercise is vital for older adults to sustain their physical functions (American College of Sports Medicine, 2009). However, the physical capacity of older adults differs from that of young adults. Older adults face threats of a physical function decline, such as deteriorating heart and lung functions and declining muscle strength and muscle endurance (Hung & Chen, 2008). It is essential to select or design exercise programs in accordance with the principles of exercise for older adults. According to the physical fitness guideline for older

adults suggested by Haskell and colleagues (2007), older adults should perform regular exercises three to five times per week, and the types of exercise should emphasize enhancing physical performance in daily activities. A comprehensive exercise program for older adults should include the essential elements of functional fitness, such as cardiovascular fitness, muscle strength training, flexibility stretching, balancing, body coordination, and agility (J. F. Chen & Lin, 2006). Furthermore, in order to incorporate exercises as a daily routine for older adults, exercises that are novel and have a theoretical or culture orientation for older adults would elicit their interests and long-term engagement (Yeh & Chen, 2004). The acupunch exercise that is based on the Jing-Luo theory of traditional Chinese medicine could be one of the exercise choices for older adults.

## Jing-Luo Theory in Traditional Chinese Medicine

The Jing-Luo theory appeared as early as the Han Dynasty 2,000 years ago. The Jing-Luo (meridians) are paths that blood and the life energy known as “qi” flow throughout the body; a blockage of the path will lead to lack or excess of energy in a specific area that may cause health problems (Shaun, 2008, 2009). According to traditional Chinese medicine, meridians, which are connected to the skin through acupoints, can be used to regulate and balance the body, maintain daily operations, and transport qi and blood to nurture the whole body. There are 14 meridians

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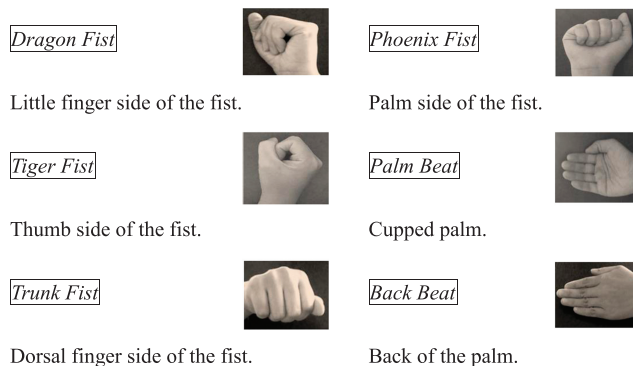
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with approximately more than 2,000 acupoints located on the body surface. Stimulating the acupoints by pressing, massaging, punching, or cuffing can excite, suppress, or induce the meridians to facilitate and balance the circulation of qi/blood and maintain/promote the health of an individual (C. C. Chang, 2009; Zang, 2010). The World Health Organization (2002) reported that stimulating meridians and acupoints can enhance cardiopulmonary function, neuromuscular and skeletal joint performance, emotional status, sensory awareness, and other physical and mental functions. Therefore, acupoint stimulations have been receiving growing attention and practicing by the public internationally (Hsieh & Ho, 2009; Tsai, 2011).

### Techniques of Acupoint Stimulation

There are three major techniques of acupoint stimulation: (1) acupuncture, (2) acupressure, and (3) acupunch (Hsieh & Ho, 2009; Tsai, 2011). Each method has its pros and cons. Acupuncture regulates body functions and treats diseases by using needles or burning moxa leaves on specific body parts (Y. H. Chang, 2012). Both needling and moxibustion techniques can regulate qi and blood, balance yin and yang, and dredge the meridian passage by stimulating the acupoints to further treat diseases and restore one's health (Chiu, Shiao, & Yeh, 2012). However, needle administration is an invasive procedure and creates risks of infection and bleeding if performed by an individual who lacks professional skills. Furthermore, moxibustion burns leaves on the skin and might result in burnt skin and other serious conditions (Cheng & Hsu, 2013; Lin, Huang, & Lan, 2008). Instead of using needles or burning moxa leaves as in acupuncture, acupressure uses fingers to put pressure on specific body parts (L. L. Chen, Wang, & Tsai, 1998). It is a healthcare modality that is suitable for all ages. However, it requires correct and excellent techniques, and it depends on others to administer the procedure. Further dissemination is limited by manpower, space, and time (Hsu, 2011, 2012).

Acupunch is a noninvasive method of meridian and acupoint stimulations that does not require the assistance of others. The essence of acupunch is “a punch to move qi instead of to dispel stasis.” In other words, acupunch emphasizes vibration instead of beating. The vibrations through the hands can cuff or tap every part of the body along the 14 meridians to transport qi and blood; the mechanism is similar to the pumping of the heart (Shaun, 2009). Acupunch involves three principles: (1) making a hollow fist with a solid grasp by using qi instead of force, leaving a space with a width of approximately one finger; (2) six punching styles: dragon fist, tiger fist, trunk fist, phoenix fist, palm beat, and back



**Figure 1.** Six punching styles of the acupunch.

beat (Figure 1); and (3) when practicing acupunch, the wrist, elbow, and shoulder joints are relaxed, and a natural parabola is produced by swinging, which directs the fist onto the targeted acupoint (Shaun, 2008, 2009). The speed, force, and duration of the acupunch can be self-determined and adjusted according to an individual's physical condition. Arriving suddenly on the body, elasticity can vibrate meridians and generate heat, which help to circulate qi and blood as well as dredge meridian passages (Lu & Zhong, 2006). It is the only acupoint stimulation technique that can be performed in a self-managed exercise format. However, acupunch exercise should be practiced with caution, and some groups might experience discomfort, such as a postcardiac or stroke person on warfarin or other anti-coagulant might have possible bruising.

### Purpose of the Study

As evidenced in the literature, acupoint stimulations have various merits for the health of an individual, and acupunch is the only simulation technique that can be performed in a self-managed exercise format. Although numerous types of exercises have been promoted and practiced by older adults, exercises that are novel and have a theoretical or culture orientation to them would elicit their interest and long-term engagement (Yeh & Chen, 2004). Therefore, this study aimed to develop an acupunch exercise program tailored for older adults and to evaluate the feasibility of the program protocol for community older adults.

## Methods

### Design

This study was conducted in two stages. In Stage I, the Delphi technique was used to gather the viewpoints of an expert advisory panel to develop the protocol of an acupunch exercise program, called the Healthy Beat Acupunch (HBA) exercise program, for community older adults. In Stage II,

using a preexperimental, one-group, posttest-only design, the expert version of the HBA exercise program developed from Stage I was then pilot-tested with a group of community older adults for 4 weeks. The program protocol was evaluated by the participants afterward.

### **Setting and Participants**

In Stage I, a mailed survey was used to collect a wide range of opinions from 16 experts in eight professional fields (geriatric nursing, geriatric medicine, traditional Chinese medicine, sports medicine, physical therapy, elderly exercise trainer, social work, and community older adult) to develop the HBA program protocol. Two experts from each field were consulted to avoid arbitrary bias in the feedback, and the experts remained anonymous to each other to prevent the opinions of individuals from being altered by the persuasive behavior of a few people at an actual meeting.

In Stage II, a community care station in southern Taiwan was selected as the pilot study site. This site was established voluntarily by community residents to provide localized community services, such as home visits, meals delivery, and health promotion activities. The average number of community residents who come to the station for health promotion activities was approximately 35–40. Using convenience sampling, 31 older adults at this site were recruited. Inclusion criteria were (1) community older adults aged 65 and over, (2) able to stand and walk without assistive devices, (3) exhibited self-care ability in activities of daily living (the Barthel index score,  $BI \geq 91$ ), and (4) cognitive intact as screened by the Short Portable Mental Status Questionnaire ( $SPMSQ \geq 8$ ). This pilot study aimed to evaluate the feasibility of the HBA program protocol; therefore, no sample size estimation was calculated prior to participant recruitment, and all of the older adults in the study site who met the sample selection criteria were invited to participate (participation rate: 100%).

### **Ethical Considerations**

This study was approved by the institutional review board of a university hospital (KMUH-IRB-20140089). After approving from the head of the community care station, the purpose and procedure of the study were explained to the older adults at the site. For those older adults who were willing to participate, research assistants met with them individually, explained that data collected would be maintained as confidential, and had them sign consent forms.

### **Procedures and Data Collection**

In Stage I, the preliminary HBA program protocol, including hard copy descriptions and DVD demonstrations of each motion, was initially designed by the research team based on the Jing-Luo theory, the three exercise principles of acupunch (Shaun, 2008, 2009), the physical fitness guideline for older adults (Haskell et al., 2007), and the essential elements of a comprehensive exercise program for older adults (J. F. Chen & Lin, 2006). The preliminary program protocol included three phases: (1) activating qi and blood: five slow and gentle motions to regulate qi, loosen the body, and elevate enough energy for a safe transition to the next phase, (2) punching meridians: 14 low-to-medium speed motions to punch the 14 meridians to enhance the cardiovascular-respiratory workout, and (3) relaxing body and mind: five low-speed, muscle relaxing motions with deep breathing to soothe the body and mind. The protocol was sent to the Delphi advisory panel for their critical evaluations based on the four criteria of exercise program evaluation suggested by K. M. Chen, Tseng, Huang, and Li (2013): (1) simplicity, (2) safety, (3) suitability, and (4) helpfulness. Simplicity is concerned with the difficulty level for older adults to perform a particular motion; safety focuses on whether the motion is safe and not dangerous for older adults to practice; suitability refers to whether the particular motion is appropriate for older adults; helpfulness determines whether the motion is helpful in promoting the health of older adults (K. M. Chen et al., 2013). The scoring system ranged from 1 to 4: 1 indicates the motion should be eliminated, 2 demonstrates the motion should be considerably revised, 3 shows the motion should have minor revision, and 4 denotes the motion does not require revision and should not be eliminated. The experts were asked to provide suggestions for revisions if they rated a particular motion with a score of  $\leq 3$ .

In Stage II, a program feasibility evaluation was conducted after participants had completed 4 weeks of the HBA exercises (three sessions per week, 40 minutes per session, and 12 sessions in total). The evaluation included two parts. The first part was to assess the three phases (activating qi and blood, punching meridians, and relaxing body and mind) of the HBA program based on the same four evaluation criteria suggested by K. M. Chen and colleagues (2013): simplicity, safety, suitability, and helpfulness. However, for the participant's evaluation, the rating scale adopted the 10-point Cantril Ladder Scale, ranging from 0 to 10: 0 represented a very difficult, dangerous, inappropriate, and unbeneficial phase; 10 indicated a very easy, safe, appropriate, and beneficial phase. Lower scores indicated that the older adults evaluated the phase more negatively, whereas higher scores showed that the older

adults evaluated the phase more positively. In the second part of the evaluation, participants were asked to answer five open-ended questions on their exercise experiences suggested by K. M. Chen and colleagues (2013): (1) What changes have you experienced since you began practicing the HBA? (2) How many people do you consider to be appropriate in a practice group? (3) How many times per week do you consider to be appropriate for this exercise? (4) How long do you consider to be appropriate for one practice session? (5) What types of instructors do you prefer? After data were collected, the opinions and suggestions of the participants were integrated to serve as references for revising the program protocol.

### Data Analysis

The Statistical Products and Services Solutions (SPSS) version 20.0 was used to analyze the quantitative data. Descriptive statistics, such as frequency, percentage, mean, or standard deviation, were used to describe the characteristics of the participants and to show the consensus of experts and responses of older adults on program protocol based on the four evaluation criteria. The qualitative feedback of the experts and older adults was analyzed and summarized through content analysis to revise the program. Key phrases were identified from repeated textual descriptions. Subsequently, phrases were categorized by their frequency and percentage of appearance.

## Results

### Demographics of the Participants

In Stage I, the mean age of the 16 experts was 50.25 years old ( $SD = 12.52$ ). More than half of the experts were male ( $n = 10$ ), and the average year of professional experience with older adults was 11.46 years ( $SD = 5.32$ , range: 6–25). Regarding educational level, nine experts held a master's degree, comprising the largest proportion. In Stage II, all of the 31 participants completed the 4-week HBA interventions. The mean age of the participants was 69.81 years old ( $SD = 4.96$ , range: 65–82). The majority of the participants were female ( $n = 19$ ) and had completed a senior high school education ( $n = 13$ ). Nearly all the participants exercised regularly ( $n = 30$ ), and 15 of them exercised every day. The most popular exercise practiced by these older adults was the traditional health-promoting exercise (e.g., tai-chi and qi-gong;  $n = 15$ ). Fourteen participants had at least one chronic disease, but they were fully independent in their daily living activities ( $BI = 99.84 \pm 0.90$ ) and their cognitive function was intact ( $SPMSQ = 10.00 \pm 0.00$ ).

### HBA Program Development

The HBA exercise program includes three phases and takes 40 minutes to complete: (1) activating qi and blood (five motions), (2) punching meridians (14 motions), and (3) relaxing body and mind (five motions). Some of the motions are illustrated in Figure 2.

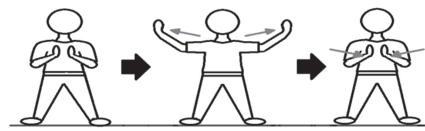
#### Phase I: Activating Qi and Blood

This phase was designed as a warm-up exercise before the next phase, comprising five motions: (1) expanding the chest, (2) swinging the arms, (3) thanking the heaven and the earth, (4) turning the torso, and (5) embracing the chest and lifting the legs. The experts' ratings of these five motions in four criteria (simplicity, safety, suitability, and helpfulness) were between  $3.81 \pm 0.54$  and  $4.00 \pm 0.00$ , exhibiting satisfactory consistency (Table 1). However, swinging the arms ( $SD = 0.50$ ) and embracing the chest and lifting the legs ( $SD = 0.54$ ) exhibited larger  $SD$ s in the criterion of simplicity. The experts proposed that, because older adults possess less satisfactory learning ability and flexibility, the arm-swinging motion should be taught by dividing the motion into hand and leg motions. In addition, achieving balance in the chest-embracing and leg-lifting motions was difficult. Therefore, the experts suggested redirecting the hands from the scapulars under the armpits to the shoulders as well as emphasizing the balance and safety.

#### Phase II: Punching Meridians

In this phase, both hands were used to exert a vibrating effect for stimulating the meridians and acupoints in the entire body. The exercising speed was gradually accelerated according to the rhythms. The acupunch set comprised 14 motions: (1) punching the shoulders with the phoenix fist, (2) punching the upper chest with the phoenix fist, (3) punching the armpits with the tiger fist, (4) punching the outer arms with the phoenix fist, (5) punching the forearms with the dragon fist, (6) punching the center chest with the palm beat, (7) punching the scapulars with the palm beat, (8) punching the lower ribs with the palm beat, (9) punching the lower abdomen with the palm beat, (10) punching the lower back with the back beat, (11) punching the buttocks with the tiger fist, (12) punching the forelegs with the trunk fist, (13) punching the inner legs with the dragon fist, and (14) punching the outer legs with the phoenix fist. The experts evaluated all motions according to the four criteria, and the ratings ranged from  $3.69 \pm 0.60$  to  $4.00 \pm 0.00$  (Table 1). Among all motions, punching the forearms with the dragon fist ( $SD = 0.54$ ) showed the highest  $SD$  in the criterion of simplicity, punching the forelegs with the trunk fist ( $SD = 0.54$ ) displayed the highest  $SD$  in the criterion of safety, punching the outer arms with the phoenix fist ( $SD = 0.60$ )





Phase I: Activating qi and blood: Expanding the chest

1. Stand with feet apart. Bend the elbows, and place them in front of the chest, leaving approximately 15 cm gap between the palms. Point the fingertips upward, and bend the fingers slightly.
2. Inhale. Push both hands outward, and open the arms to both sides.
3. Exhale. Return to the original position.



Phase II: Punching meridians: Punching the shoulders with the phoenix fist

1. Stand with feet apart. Make hollow fists, and place them at the sides of the body.
2. Swing the left arm in an arch from the bottom left to the upper right. Use the phoenix fist to punch the midpoint of the right shoulder. Point-squat both knees simultaneously.
3. Return to the original position.
4. Swing the right arm in an arch from the bottom right to the upper left. Use the phoenix fist to punch the midpoint of the left shoulder. Point-squat both knees simultaneously.
5. Return to the original position.



Phase III: Relaxing body and mind: Shouting to the sky

1. Stand with feet apart. Bend the knees slightly, and place the hands at the sides of the body.
2. Stretch the hands upward and outward. Expand the chest. Place the palms inward, look straight at the point in the front at 45°, and inhale for 5 seconds.
3. Return both hands to the original position, and exhale for 5 seconds.

**Figure 2.** Illustrations of the first motion in each phase of the Healthy Beat Acupunch exercise program.

demonstrated the highest *SD* in the criterion of suitability, and punching the center chest with the palm beat (*SD* = 0.50) showed the highest *SD* in the criterion of helpfulness (Table 1). The experts provided revision suggestions and teaching reminders regarding a few motions. For instance, punching the outer arms with the phoenix fist required swinging the upper arms as the torso turns, which was difficult for the older adults to perform. Moreover, the procedure of punching the forearms with the dragon fist was not clearly described, thus prohibiting older adults from practicing this motion correctly. These motions were subsequently revised. Finally, special teaching illustrations or reminders were required for these

motions: (1) the point-squatting that was involved in punching the center chest with the palm beat generated a considerable burden on the knee joints of older adults, (2) the standing on one foot that was required in punching the forelegs with the trunk fist caused imbalance for older adults, and (3) the lunges involved in punching the inner legs with the dragon fist were relatively unfamiliar to the older adults.

### Phase III: Relaxing Body and Mind

After exercising, physical and mental relaxation activities were performed, comprising five motions: (1) shouting to the sky, (2) calming with the palms clasped, (3) soothing the

**Table 1** Ratings of experts on the Healthy Beat Acupunch exercise program ( $N = 16$ )

Phase/Motion	Criteria			
	Simplicity	Safety	Suitability	Helpfulness
	$M \pm SD$	$M \pm SD$	$M \pm SD$	$M \pm SD$
Phase I: Activating qi and blood				
Expanding the chest	$3.94 \pm 0.25$	$3.94 \pm 0.25$	$4.00 \pm 0.00$	$4.00 \pm 0.00$
Swinging the arms	$3.88 \pm 0.50$	$3.94 \pm 0.25$	$3.94 \pm 0.25$	$4.00 \pm 0.00$
Thanking the heaven and the earth	$4.00 \pm 0.00$	$3.81 \pm 0.40$	$3.94 \pm 0.25$	$3.94 \pm 0.25$
Turning the torso	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$3.88 \pm 0.34$	$3.94 \pm 0.25$
Embracing the chest and lifting the legs	$3.81 \pm 0.54$	$3.81 \pm 0.40$	$3.81 \pm 0.40$	$3.87 \pm 0.34$
Phase II: Punching meridians				
Punching the shoulders with the phoenix fist	$3.88 \pm 0.34$	$4.00 \pm 0.00$	$3.87 \pm 0.34$	$3.94 \pm 0.25$
Punching the upper chest with the phoenix fist	$3.88 \pm 0.34$	$3.94 \pm 0.25$	$3.88 \pm 0.34$	$4.00 \pm 0.00$
Punching the armpits with the tiger fist	$4.00 \pm 0.00$	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$4.00 \pm 0.00$
Punching the outer arms with the phoenix fist	$3.94 \pm 0.25$	$3.88 \pm 0.50$	$3.69 \pm 0.60$	$3.81 \pm 0.40$
Punching the forearms with the dragon fist	$3.81 \pm 0.54$	$4.00 \pm 0.00$	$3.87 \pm 0.50$	$4.00 \pm 0.00$
Punching the center chest with the palm beat	$4.00 \pm 0.00$	$4.00 \pm 0.00$	$3.87 \pm 0.34$	$3.87 \pm 0.50$
Punching the scapulars with the palm beat	$3.94 \pm 0.25$	$4.00 \pm 0.00$	$3.75 \pm 0.58$	$3.88 \pm 0.34$
Punching the lower ribs with the palm beat	$4.00 \pm 0.00$	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$4.00 \pm 0.00$
Punching the lower abdomen with the palm beat	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$3.94 \pm 0.25$	$4.00 \pm 0.00$
Punching the lower back with the back beat	$3.94 \pm 0.25$	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$4.00 \pm 0.00$
Punching the buttocks with the tiger fist	$3.88 \pm 0.34$	$3.94 \pm 0.25$	$4.00 \pm 0.00$	$4.00 \pm 0.00$
Punching the forelegs with the trunk fist	$3.87 \pm 0.50$	$3.81 \pm 0.54$	$4.00 \pm 0.00$	$4.00 \pm 0.00$
Punching the inner legs with the dragon fist	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$3.88 \pm 0.50$	$4.00 \pm 0.00$
Punching the outer legs with the phoenix fist	$3.94 \pm 0.25$	$3.94 \pm 0.25$	$3.94 \pm 0.25$	$4.00 \pm 0.00$
Phase III: Relaxing body and mind				
Shouting to the sky	$4.00 \pm 0.00$	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$4.00 \pm 0.00$
Calming with the palms clasped	$4.00 \pm 0.00$	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$4.00 \pm 0.00$
Soothing the cheeks	$4.00 \pm 0.00$	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$4.00 \pm 0.00$
Warming the body	$4.00 \pm 0.00$	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$3.81 \pm 0.40$
Massaging the thighs	$4.00 \pm 0.00$	$3.94 \pm 0.25$	$3.94 \pm 0.25$	$4.00 \pm 0.00$

cheeks, (4) warming the body, and (5) massaging the thighs. The experts were highly consistent and provided favorable feedback on all the motions in this phase ( $3.81 \pm 0.40$  to  $4.00 \pm 0.00$ ), and no revisions were suggested (Table 1).

### HBA Protocol Feasibility Evaluation

To evaluate the feasibility of the HBA program with community older adults, a 4-week HBA exercise intervention was implemented. During the intervention, the attendance rate of the participants was 96.09%. Participants' evaluations on the three phases of the program ranged between  $8.84 \pm 1.32$  and  $9.97 \pm 0.18$  (Table 2), showing that older adults thought the HBA program was simple, safe, suitable, and helpful. After the HBA training, several older adults stated that they were more energetic ( $n = 19$ ), perceived that their physical functions were sustained ( $n = 14$ ), and claimed that their metabolism and circulation improved and their limbs became more flexible ( $n = 13$ ). In terms of program protocol, most participants suggested that a large space where more people could exercise together was the most appropriate venue for practicing the

HBA ( $n = 18$ ). Twenty-four participants claimed that training three sessions per week for 40 minutes per session ( $n = 23$ ) was the most suitable. Most of the participants preferred a professional instructor who has the ability to provide clear and accurate explanations of the motions ( $n = 16$ ), followed by a friendly instructor ( $n = 14$ ) and a patient instructor ( $n = 9$ ; Table 3).

**Table 2** Feasibility evaluation of community older adults on the Healthy Beat Acupunch exercise program ( $N = 31$ )

Phase	Criteria			
	Simplicity	Safety	Suitability	Helpfulness
	$M \pm SD$	$M \pm SD$	$M \pm SD$	$M \pm SD$
Activating qi and blood	$9.45 \pm 0.85$	$9.77 \pm 0.50$	$9.87 \pm 0.43$	$9.68 \pm 0.79$
Punching meridians	$8.84 \pm 1.32$	$9.74 \pm 0.58$	$9.68 \pm 0.70$	$9.81 \pm 0.54$
Relaxing body and mind	$9.55 \pm 0.99$	$9.97 \pm 0.18$	$9.90 \pm 0.54$	$9.94 \pm 0.36$

**Table 3** Suggestions of community older adults on the Healthy Beat Acupunch program protocol (*N* = 31)

Variable	<i>n</i>	%
Group size (no. of people)		
25	1	3.23
30	11	35.48
40	1	3.23
The more the better	18	58.06
Exercise frequency (session/week)		
2	4	12.90
3	24	77.42
7	3	9.68
Exercise duration (minutes/session)		
40	23	74.19
60	8	25.81
Characteristics of the instructor		
Patience	9	23.08
Friendly	14	35.90
Professional	16	41.03

## Discussion

Based on the experts' consultations, the developed HBA program includes three phases with 24 motions and takes 40 minutes to complete: (1) activating qi and blood (five motions, 10 minutes), (2) punching meridians (14 motions, 20 minutes), and (3) relaxing body and mind (five motions, 10 minutes). Sixteen experts from eight professional fields were highly consistent in their critical evaluations of the program and only provided minor revision suggestions or teaching reminders for some of the motions. For instance, to prevent burden on participants' knees during point-squatting, the participants should be informed before practicing this motion that the bending degree of the knees varies according to their conditions. This program was originally developed based on the Jing-Luo theory, the exercise principles of acupunch (Shaun, 2008, 2009), the physical fitness guideline for older adults (Haskell et al., 2007), and the elements of a comprehensive exercise program for older adults (J. F. Chen & Lin, 2006). With the experts' assurance, the HBA program further considered the aspects of geriatric nursing, geriatric medicine, traditional Chinese medicine, sports medicine, physical therapy, and social work, which made the program more comprehensive and intact.

As for the feasibility evaluations of the HBA exercise program, participants unanimously and strongly affirmed this program. However, two motions, namely "embracing the chest and lifting the legs" and "punching the forelegs with the trunk fist," required the participants to temporarily stand on one foot. Participants were required to exhibit satisfactory balance and muscle strength to complete these motions. Hence, most participants considered these two motions as difficult but beneficial. According to K. M. Chen

and colleagues (2013), reasonable challenging exercises could build up the confidence of older adults, keep their interest in the program, and grow in a sense of achievement, which in turn may increase their adherence to the program. As evidenced in this study, most participants expressed their willingness to continue practicing the HBA program and would recommend this program to their friends and families.

Finally, the majority of participants suggested retaining the HBA program protocol as three sessions per week and 40 minutes per session. This result was consistent with Wang (2013), who claimed that older adults should exercise three times per week and 20–45 minutes per session. Regarding the characteristics that community older adults expected from the exercise instructors, most of them asserted that the exercise instructors should be professional, friendly, and have patience, which was similar to K. M. Chen and colleagues (2013). The HBA exercise program not only involved physical motions but also emphasized the correctness of stimulating meridians and acupoints. Therefore, a trained instructor was vital to conducting the HBA exercise program.

## Study Limitations

First, because the experts' evaluations of the HBA program were fairly consistent in the first round of the Delphi consultation, a second Delphi was not conducted even though minor revisions were made to the program. Whether the experts agreed with the minor changes of the program were unknown. Second, because the purpose of this study was to develop the HBA program based on both experts' and users' viewpoints, a preexperimental, one-group, posttest-only design was used to test the program feasibility, and no program effects on health promotion were measured. A large sample, longitudinal, randomized controlled trial is suggested to test the effects of the HBA program on the health of older adults. Hence, the health benefits of the HBA program could be further clarified. Third, the participants comprised a group of older adults who were regularly exercised. Their health status as well as their passion and capacity for sustaining exercises might differ from those older adults who do not exercise regularly. Therefore, results of this study may not be generalizable to other elderly populations.

## Conclusions and Clinical Relevance

The HBA program is an exercise program that is specifically tailored for older adults. The program was developed based on both experts' and users' viewpoints that include three phases with 24 motions and takes 40 minutes to execute. The preliminary feasibility evaluation showed that the HBA program was simple, safe, suitable, and helpful to

## Key Practice Points

- The Healthy Beat Acupunch (HBA) exercise program tailored for older adults includes three phases with 24 motions and takes 40 minutes to complete: (1) activating qi and blood (five motions, 10 minutes), (2) punching meridians (14 motions, 20 minutes), and (3) relaxing body and mind (five motions, 10 minutes).
- The feasibility evaluation of 31 community older adults on the Healthy Beat Acupunch (HBA) exercise program showed that the program was simple, safe, suitable, and helpful to older adults.
- The Healthy Beat Acupunch (HBA) exercise program is suggested to be implemented for three sessions per week and 40 minutes per session and be taught by instructors who are professional, friendly, and have patience.
- The Healthy Beat Acupunch (HBA) exercise program provides community older adults with a new set of exercise options from which they could experience a sense of amusement and achievement while exercising.

community older adults. The HBA program provides community older adults with a new set of exercise options from which they could experience a sense of amusement and achievement while exercising. The nursing rehabilitation professionals would be well served to learn about this exercise modality to possibly apply the HBA program with the potential of health promotion in a rehabilitative setting.

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## Conflicts of Interest

The authors report no conflicts of interest in this work.

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