

An Innovative Acupunch Exercise Program for Older Adults in Community

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Disclosure

➤ ***Authors***

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➤ ***Conflict of Interest***

➤ ***None.***

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➤ ***Learner Objectives***

➤ ***To identify the protocol of a newly-developed complementary health practice method, the Healthy Beat Acupunch (HBA) exercise program, for community older adults.***

➤ ***To learn the methodology that can be applied to develop an exercise program.***

Background

- Older adults face threats of **physical function declines** (Hung & Chen, 2008).
- **Regular exercise** is vital to sustain older adults' physical functions (American College of Sports Medicine, 2009).
- Comprehensive exercise program for older adults should include **essential elements of functional fitness**, e.g., cardiovascular fitness, muscle strength training, flexibility stretching, balancing, and body coordination (Chen & Lin, 2006).
- To **select or design exercise programs** in accordance with **older adults' capabilities**.
- Exercises that are **novel and have theoretical or culture orientations** would **elicit interests** of older adults (Yeh & Chen, 2004).







Jing-Luo Theory

- **Consists of meridians, collaterals, muscle regions, cutaneous regions, and organs that adhere to essential concepts of the *Yellow Emperor's Inner Canon*.**
- **According to *TCM*, meridians that are connected to the skin through acupoints can regulate/balance the body, transport qi/blood to nurture the whole body.**
- **Stimulating acupoints by *pressing, massaging, punching, or cuffing* can excite, suppress, or induce the meridians to facilitate and balance the circulation of qi/blood** (Chang, 2009; Zang, 2010).

Acupunch Exercise

- A non-invasive method of **meridian & acupoint stimulations** that emphasize **vibration** rather than beating.
- Vibrations through **hands to cuff or tap** every part of the **body along 14 meridians** to transport **qi and blood** (Shaun, 2009).
- Using sudden force on the body to **vibrate meridians & generate heat**, which helps to **circulate qi & blood and dredge meridian passages** (Lu & Zhong, 2006).
- The **speed, force, & duration** of acupunch can be **self-determined & adjusted** according to a person's **physical condition**.

Principles of Acupunch

- Making a **hollow fist** with a **solid grasp**, leaving a space with a width of approximately one finger.
- **Six punching styles:**
 - **dragon fist** A fist with the index finger extended and the thumb tucked in.
 - **tiger fist** A fist with the index finger extended and the thumb tucked in, similar to the dragon fist but with a different wrist angle.
 - **trunk fist** A fist with the index finger extended and the thumb tucked in, with the wrist bent.
 - **phoenix fist** A fist with the index finger extended and the thumb tucked in, with the wrist bent and the hand rotated.
 - **palm beat** A hand with the palm facing forward and fingers slightly curled.
 - **back beat** A hand with the back of the hand facing forward and fingers slightly curled.
- When practicing acupunch, the **wrist, elbow, and shoulder joints are relaxed**, using **natural swinging** to **direct the fist onto the targeted acupoint** (Shaun, 2008; Shaun, 2009).

Purpose

- *To introduce a **newly-developed** acupunch exercise program, called the **Healthy Beat Acupunch (HBA)** exercise program, for older adults in community.*
- *To describe the **program developmental process.***

Methods

- **Design:** *Delphi technique*
 - *Hard copy + DVD containing detailed descriptions and demonstrations of the HBA program were sent to the experts.*
- **Sample:**
 - *16 experts from 8 professionals:*
 - *2 geriatric nursing, 2 geriatric medicine*
 - *2 sports medicine, 2 physical therapy*
 - *2 elderly exercise trainer, 2 social work*
 - *2 traditional Chinese medicine*
 - *2 community older adults*

Preliminary HBA

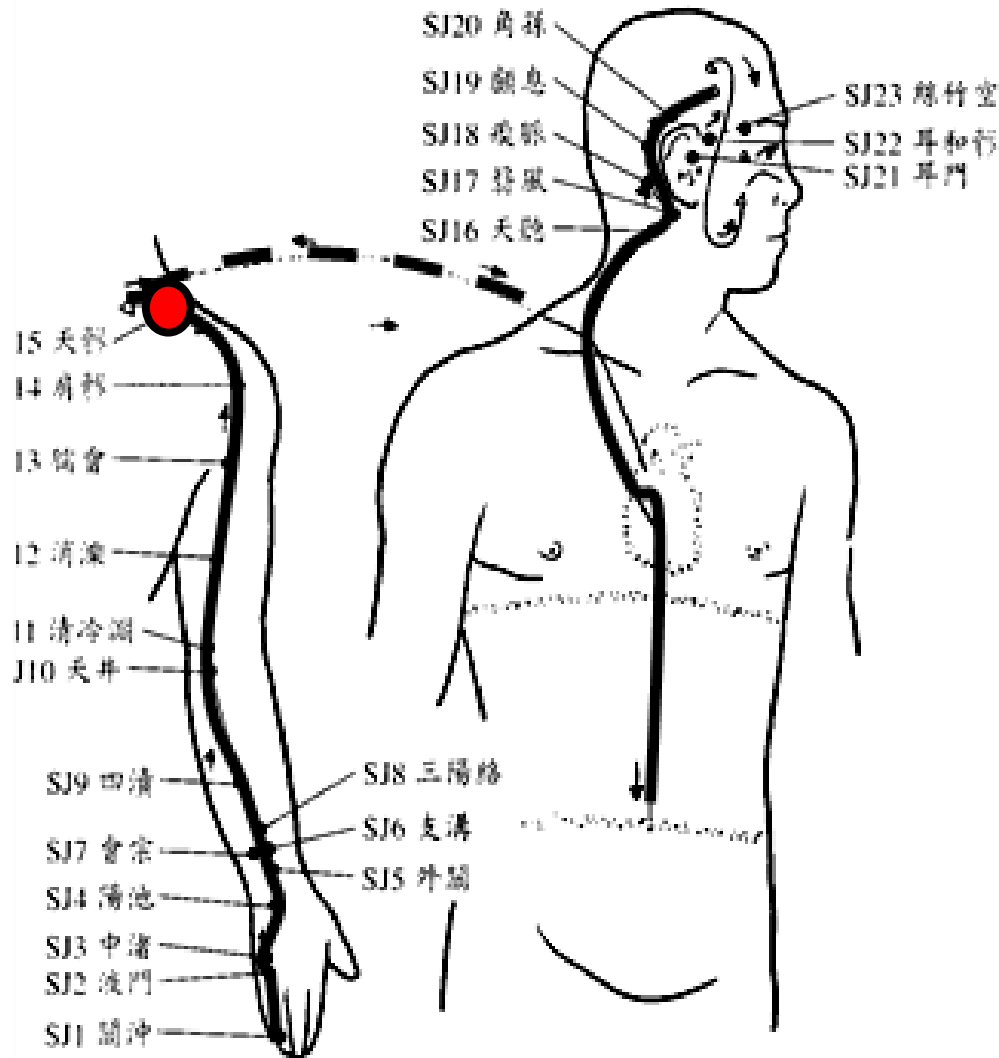
□ Program base:

- **Jing-Luo theory** (Chang, 2009; Zang, 2010)
- **3 principles of acupunch** (Shaun, 2008; Shaun, 2009)
- **Physical fitness guidelines for older adults** (Haskell et al., 2007)
- **Essential elements of a comprehensive exercise program for older adults** (Chen & Lin, 2006)

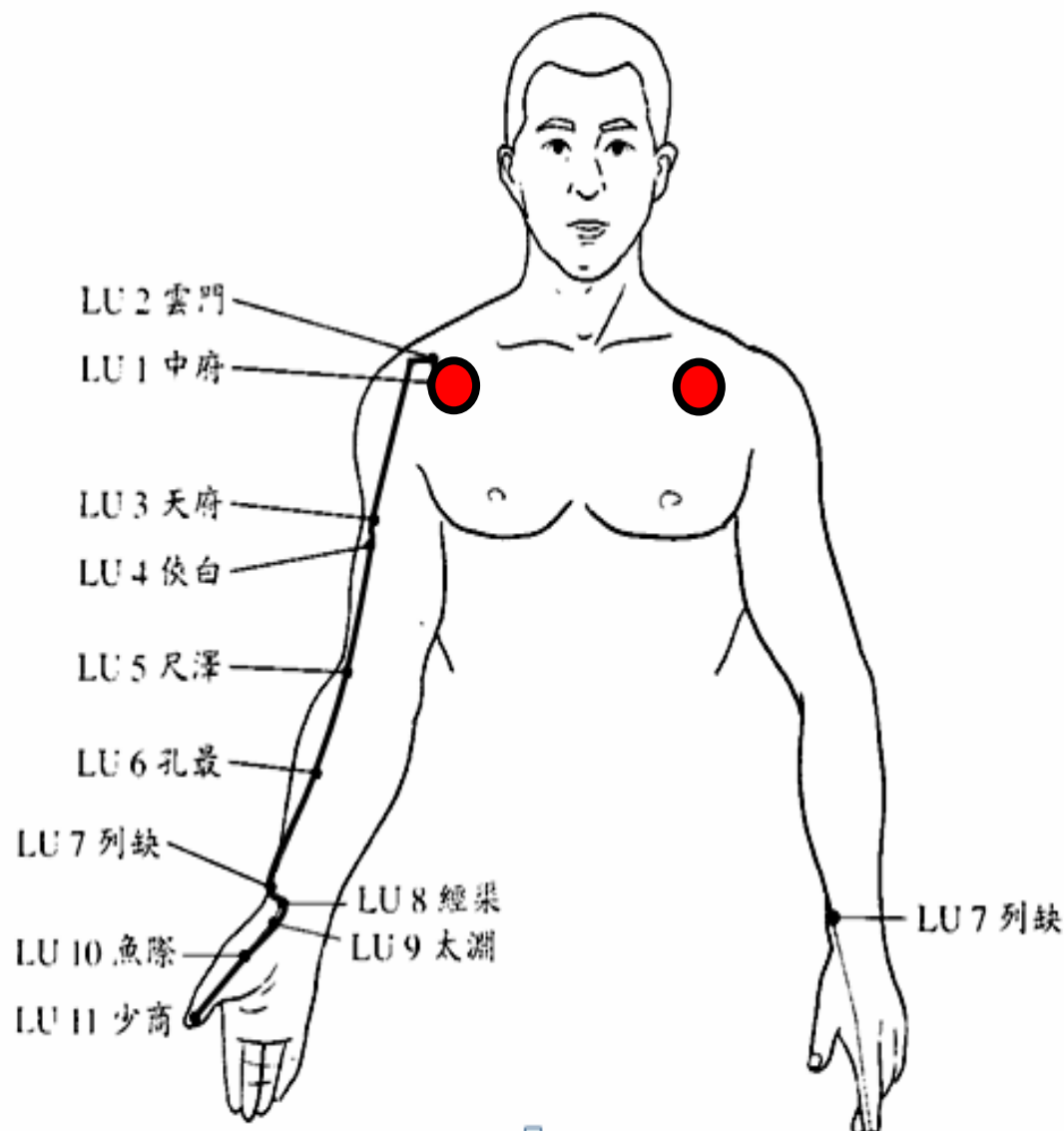
□ Program protocol:

- **Phase 1 activating qi & blood:** 5 slow, gentle motions to regulate qi, loosen body, and elevate energy for a safe transition to next phase
- **Phase 2 punching meridians:** 14 low-to-medium speed motions to punch 14 meridians, enhancing cardiovascular-respiratory workout
- **Phase 3 relaxing body & mind:** 5 low-speed, muscle relaxing motions with deep breathing to soothe body & mind

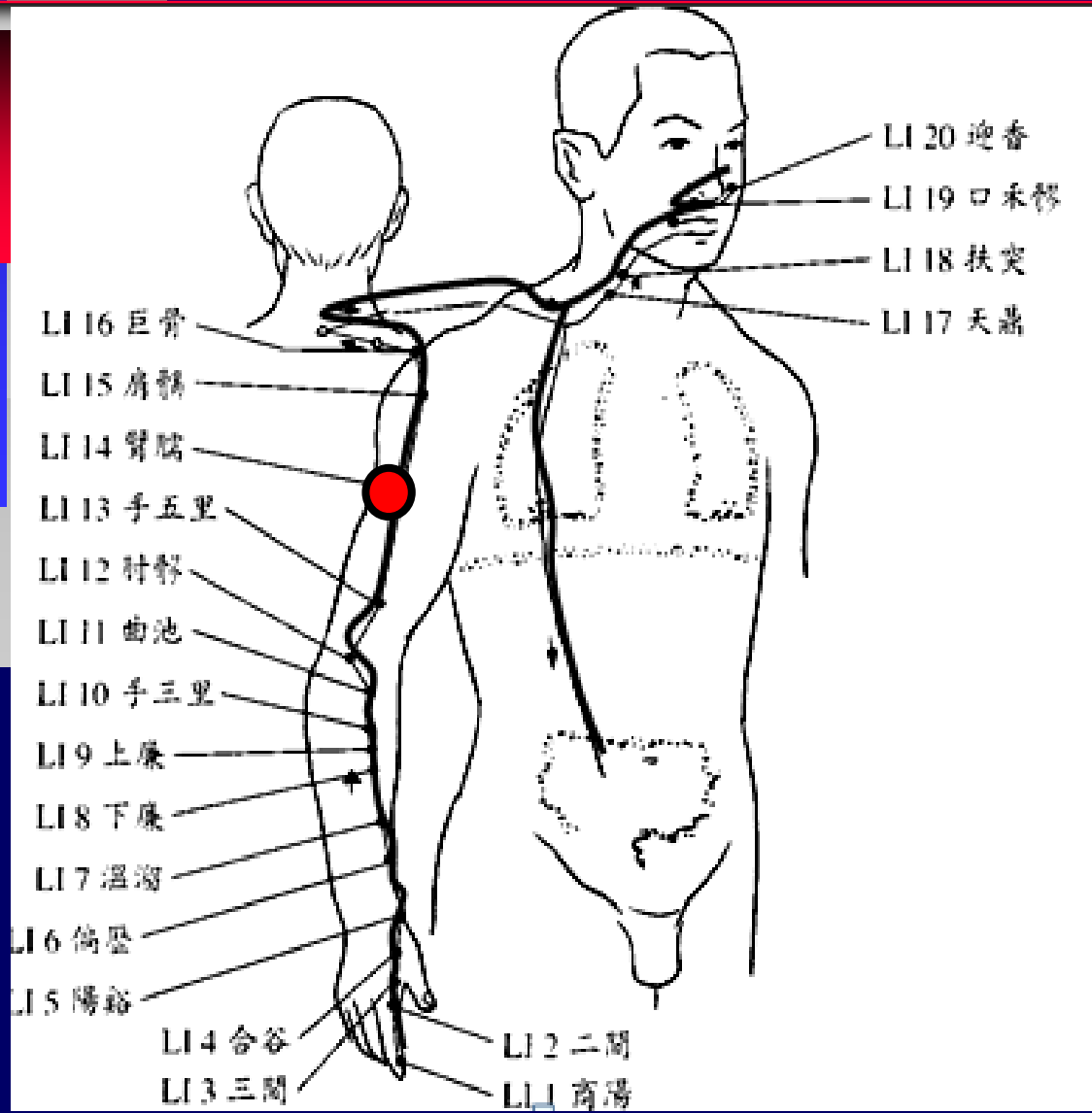
Punching the Shoulders with Phoenix Fist



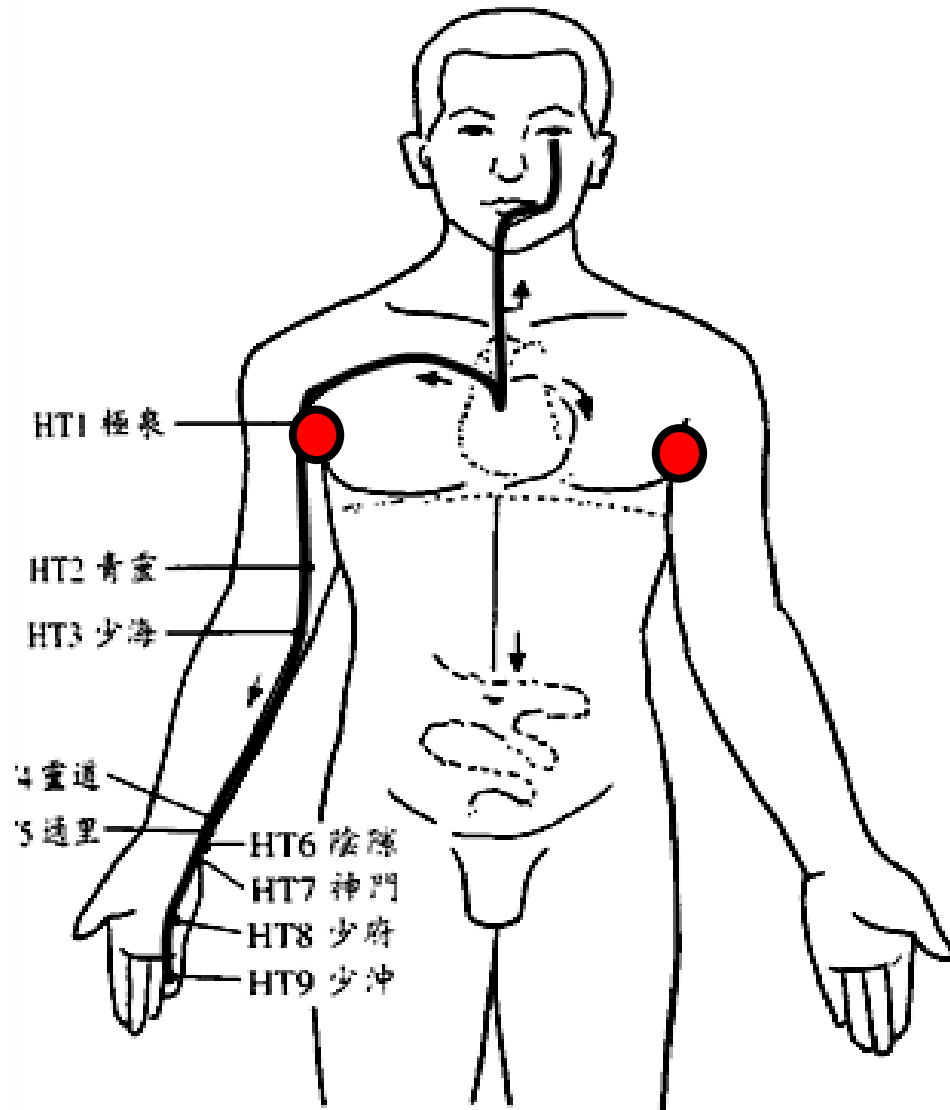
Punching the Upper Chest with Phoenix Fist



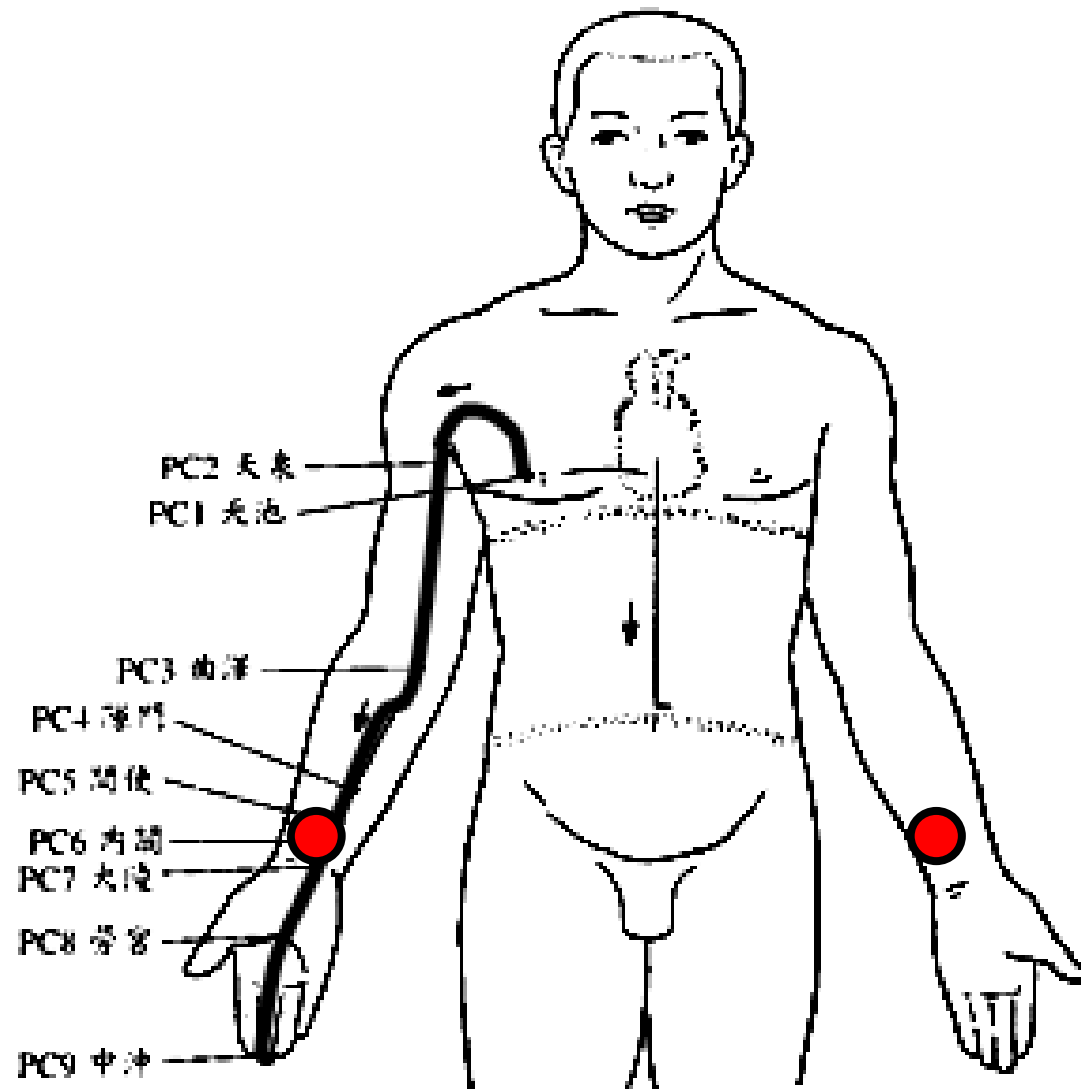
Punching the Outer Arms with Phoenix Fist



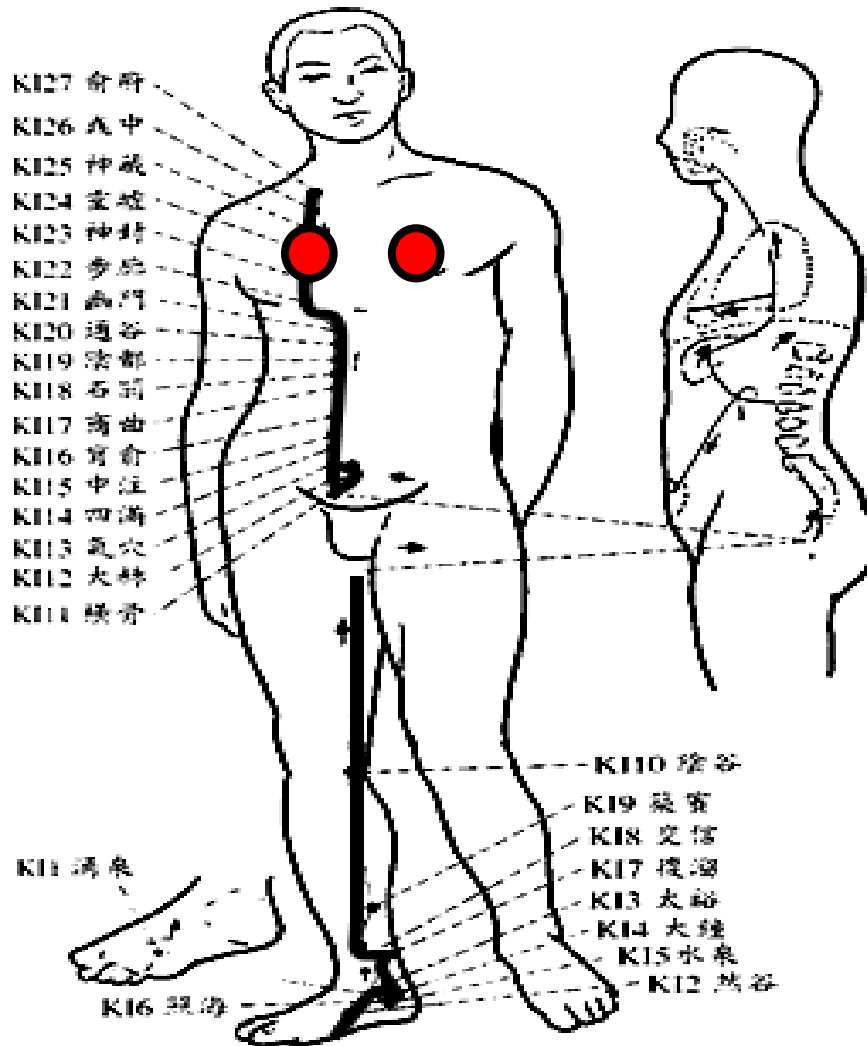
Punching the Armpits with Tiger Fist



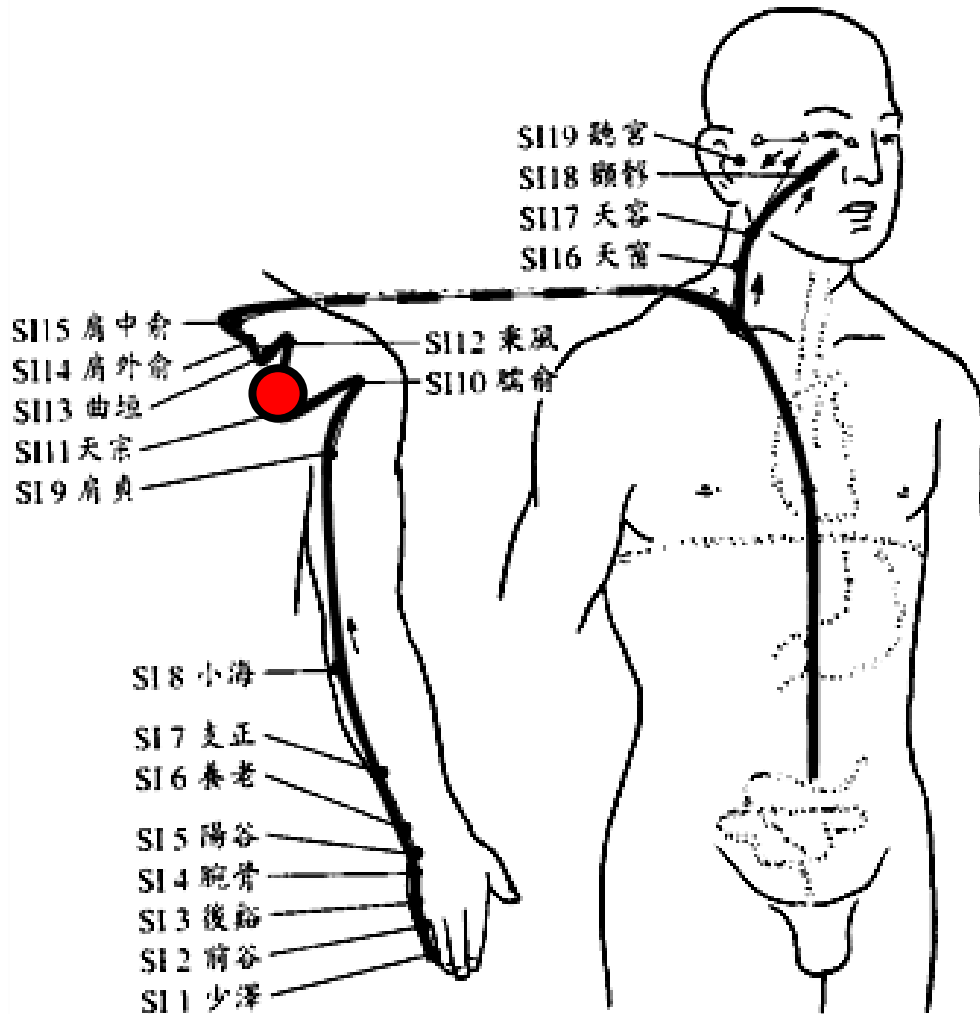
Punching the Forearms with Dragon Fist



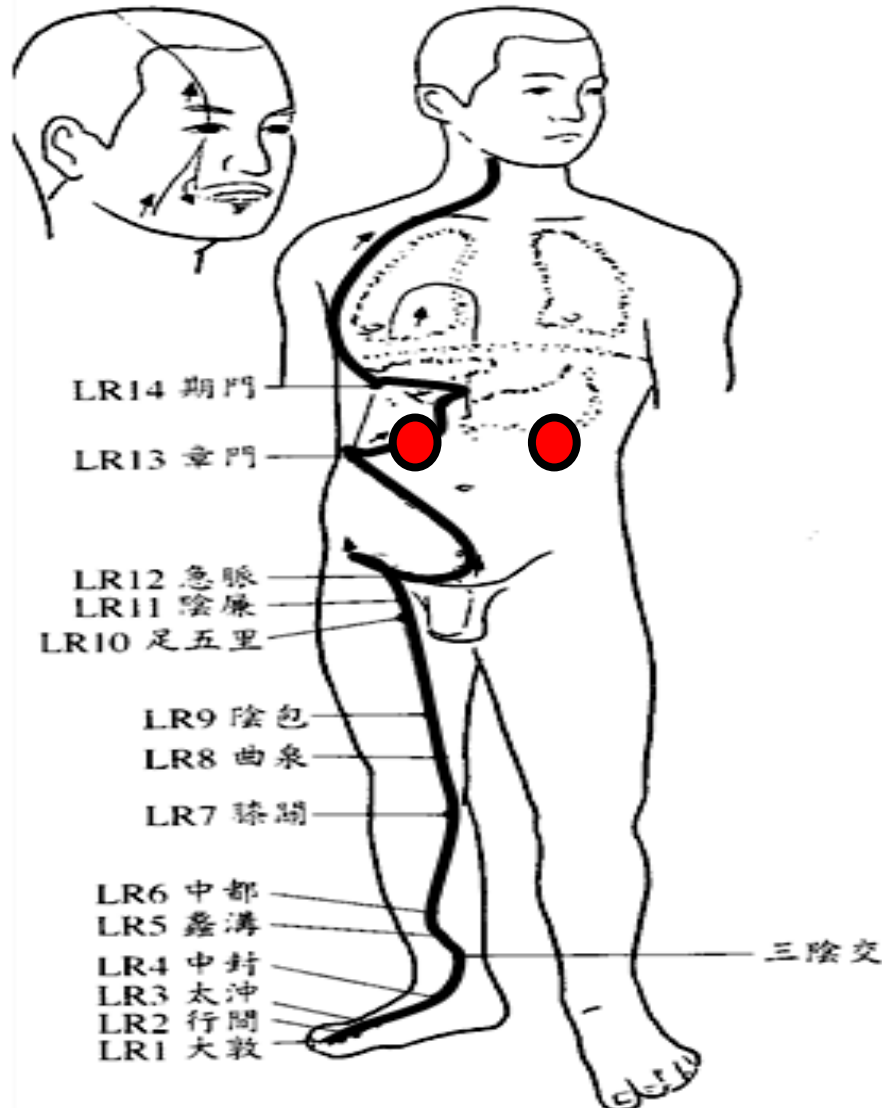
Punching the Center Chest with Palm Beat



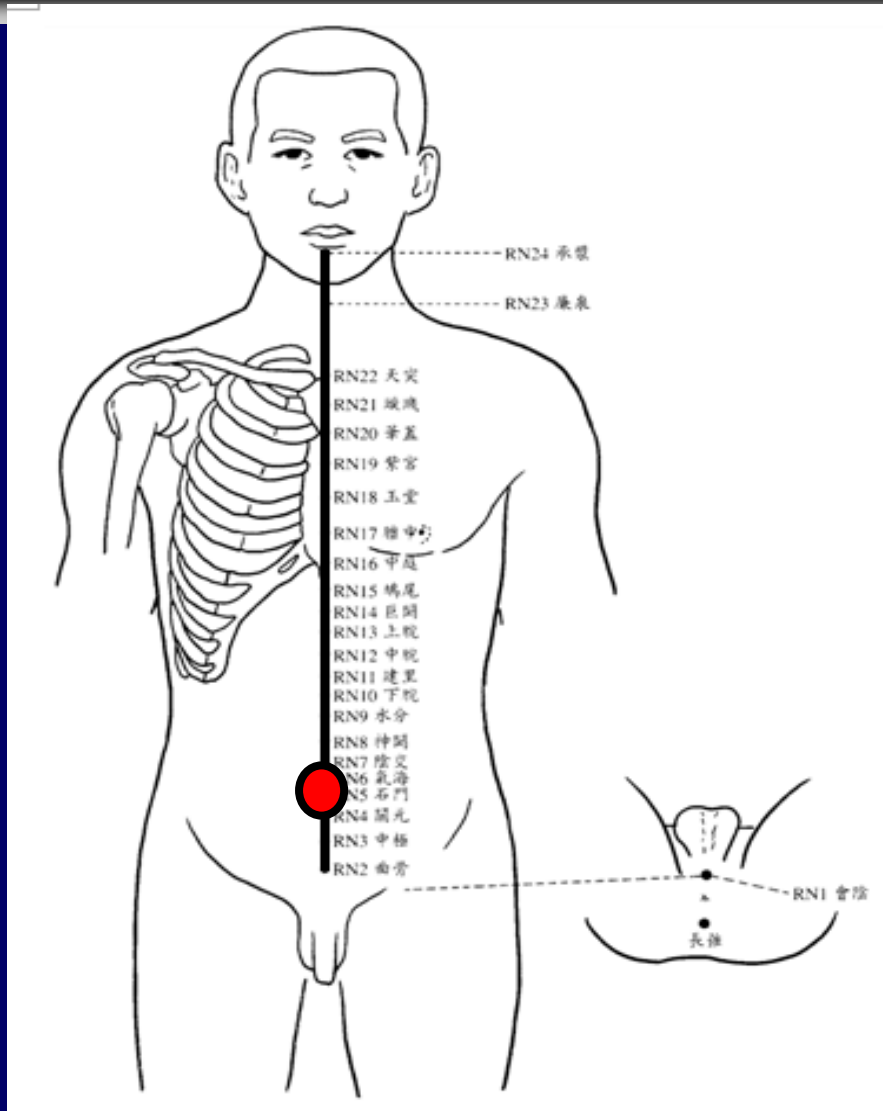
Punching the Scapulars with Palm Beat



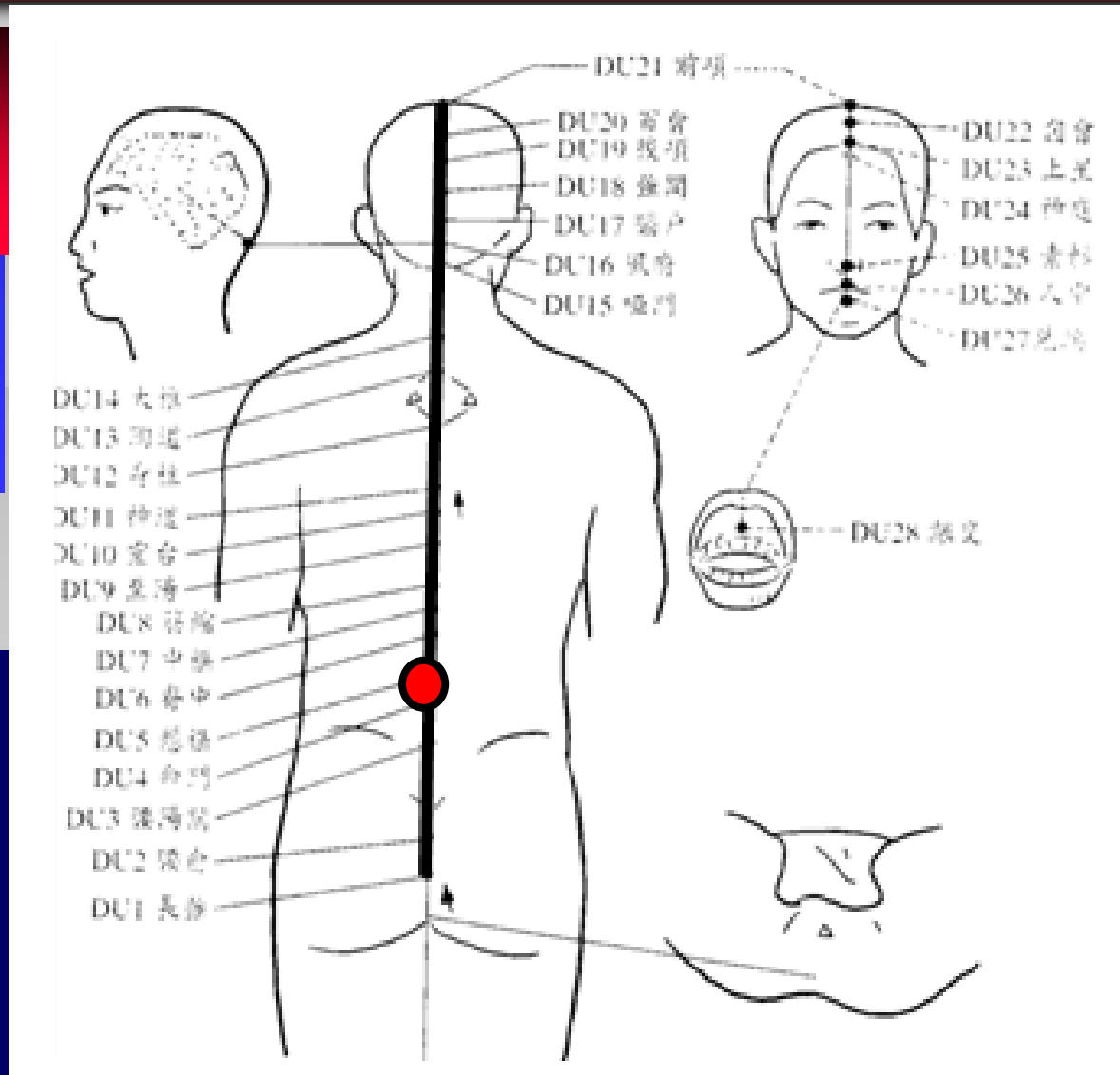
Punching the Lower Ribs with Palm Beat



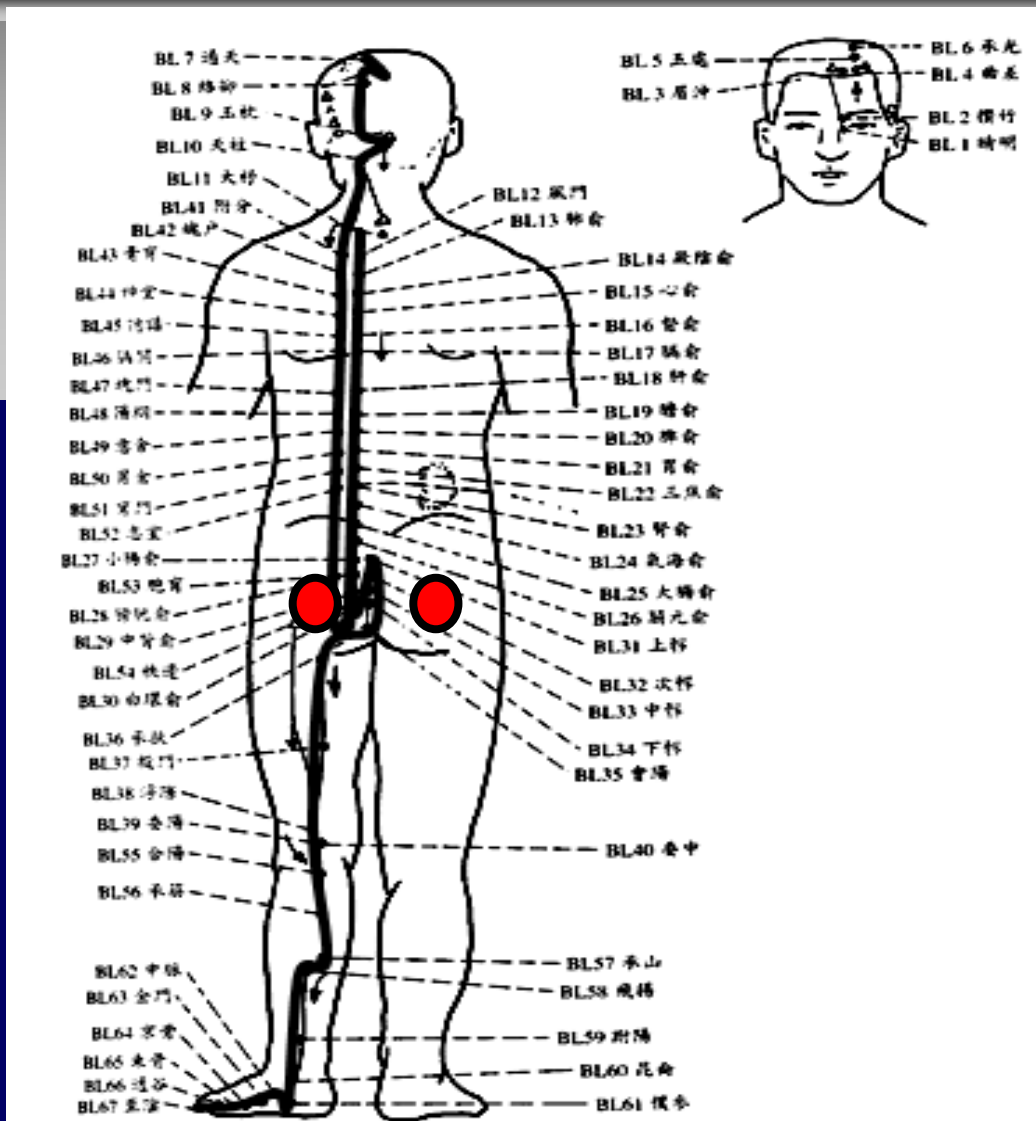
Punching the Lower Abdomen with Palm Beat



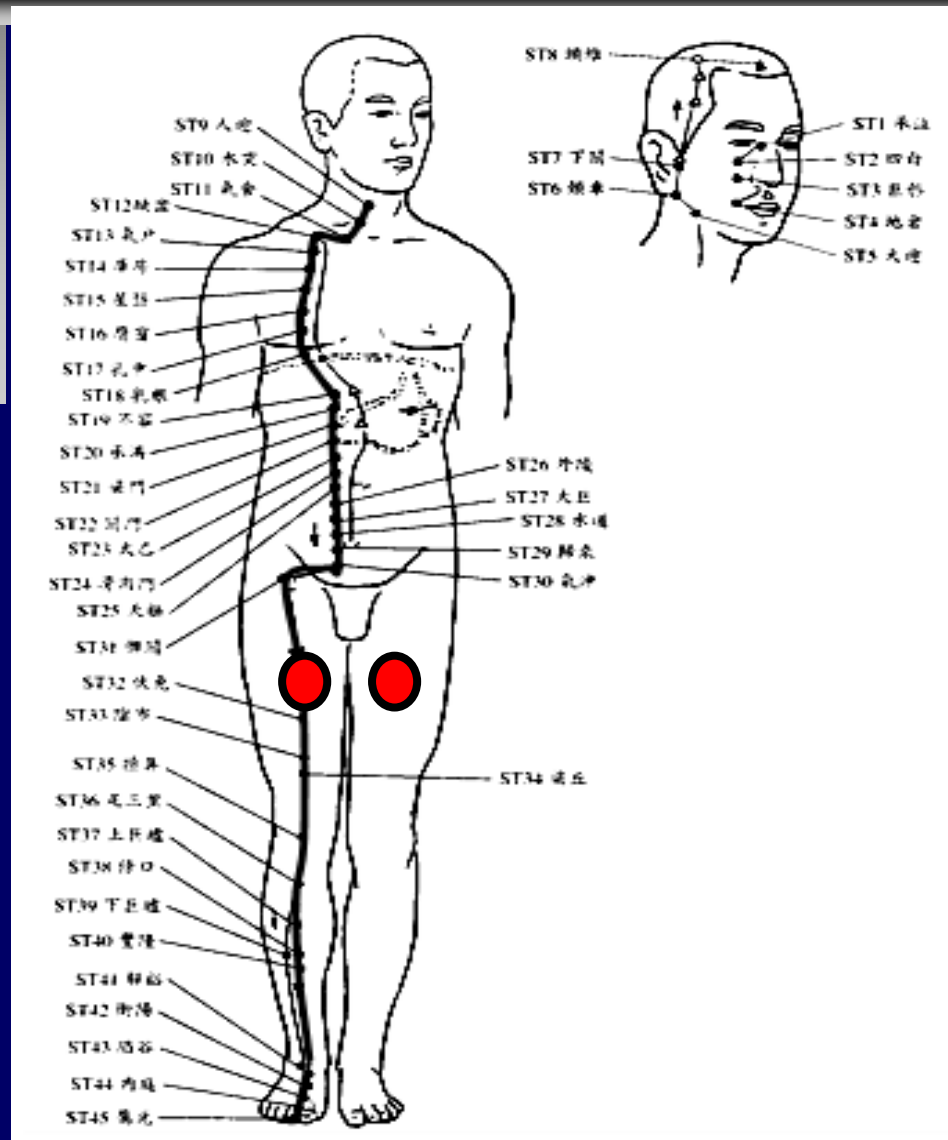
Punching the Lower Back with Back Beat



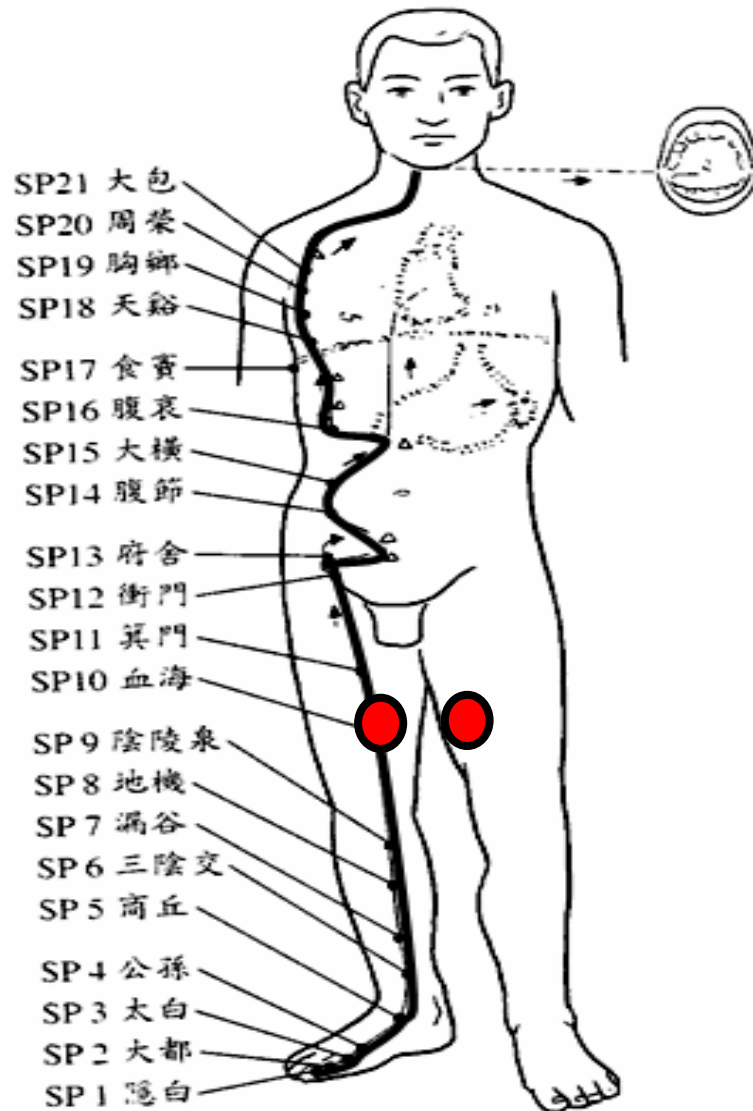
Punching the Buttocks with Tiger Fist



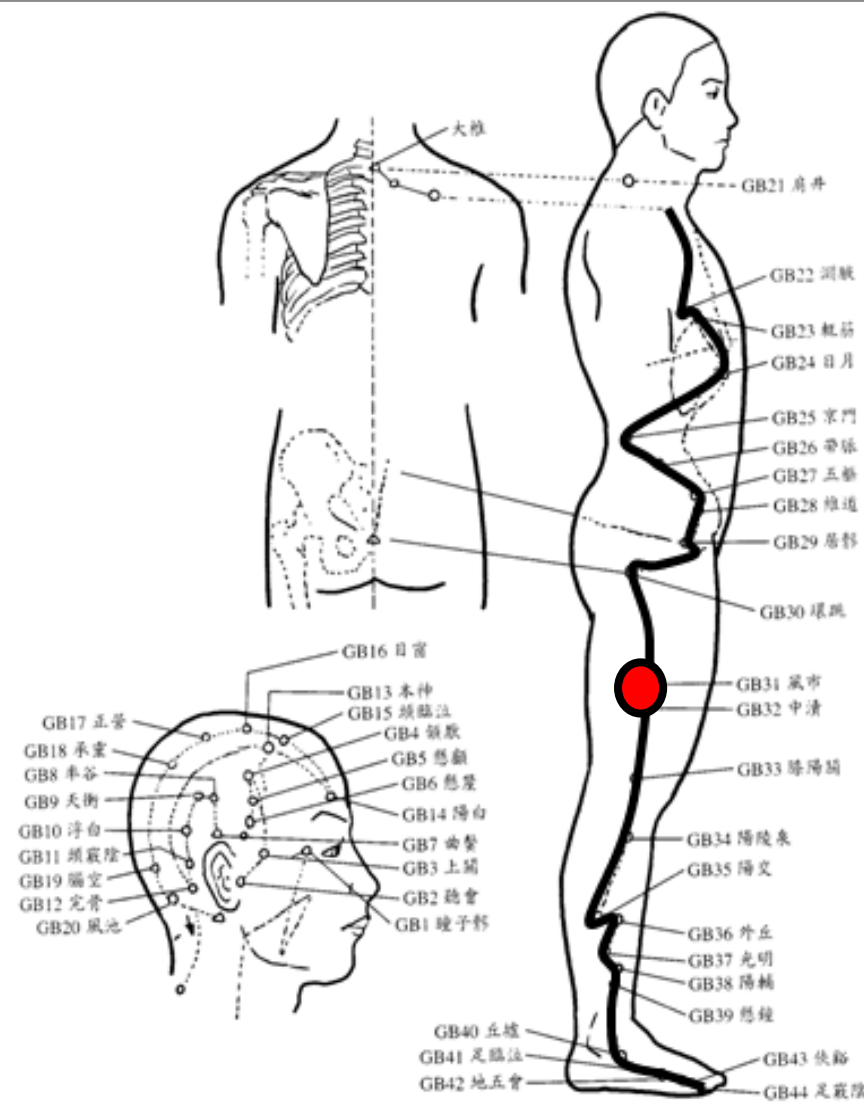
Punching the Forelegs with Trunk Fist



Punching the Inner Legs with Dragon Fist



Punching the Outer Legs with Phoenix Fist



Data Collection

- **Evaluation criteria:** (Chen, Tseng, Huang, & Li, 2013)
 - **Simplicity**
 - **Safety**
 - **Suitability**
 - **Helpfulness**
- **Scoring: 1 to 4**
 - **1 = exercise is very difficult, very dangerous, not suitable, not helpful for health promotion, and should be eliminated.**
 - **2 = major revisions should be made to the exercise.**
 - **3 = exercise is fine but warrants minor revision.**
 - **4 = exercise is simple, safe, suitable, helpful for health promotion, very essential, and should not be omitted.**
- **The experts were asked to provide suggestions for revisions if they rated ≤ 3 .**

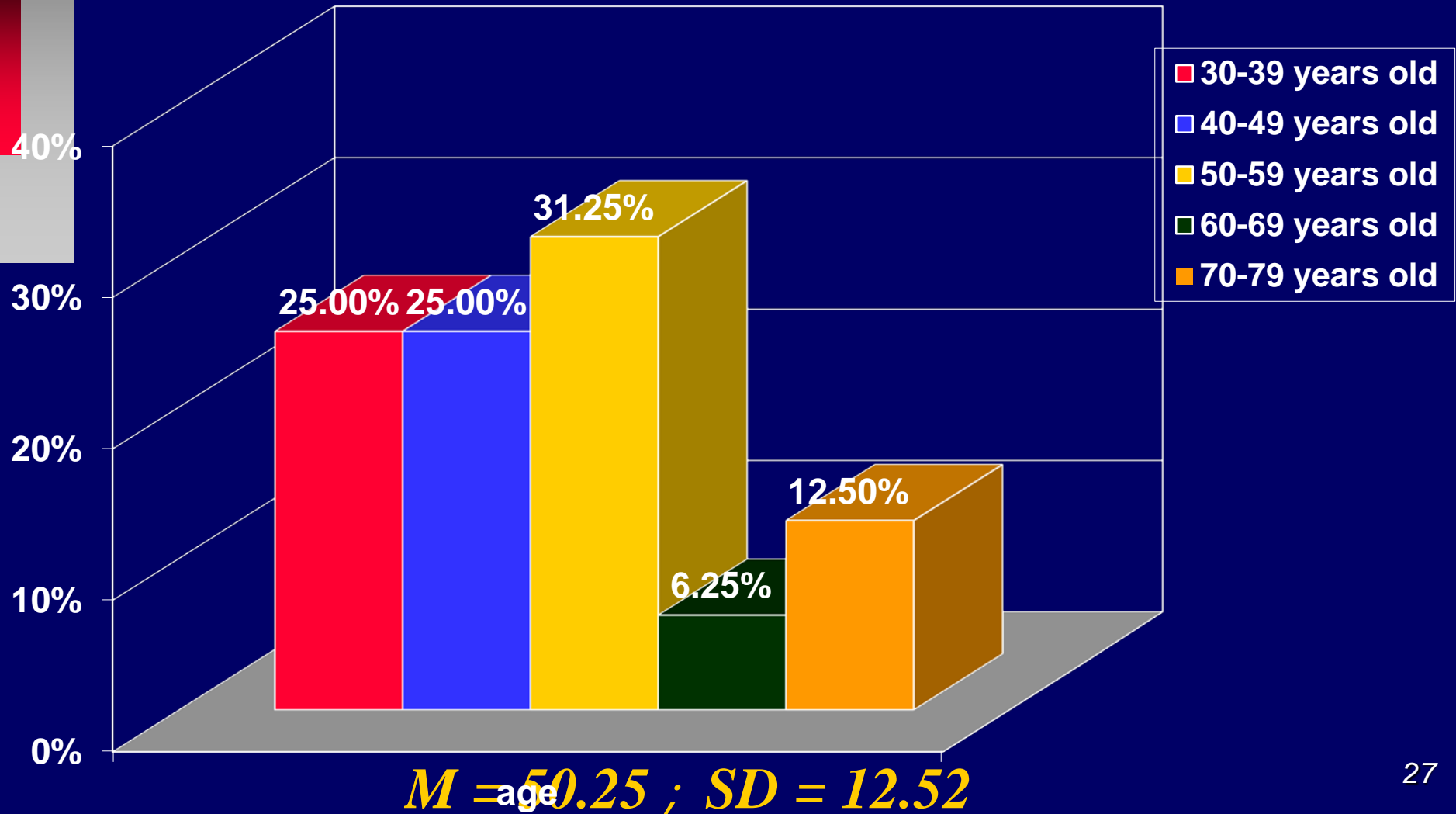


Results

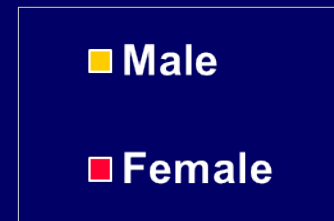
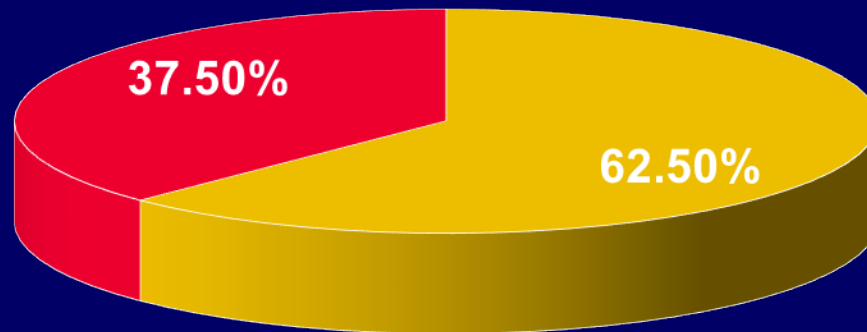


Demographic Profiles of the Experts

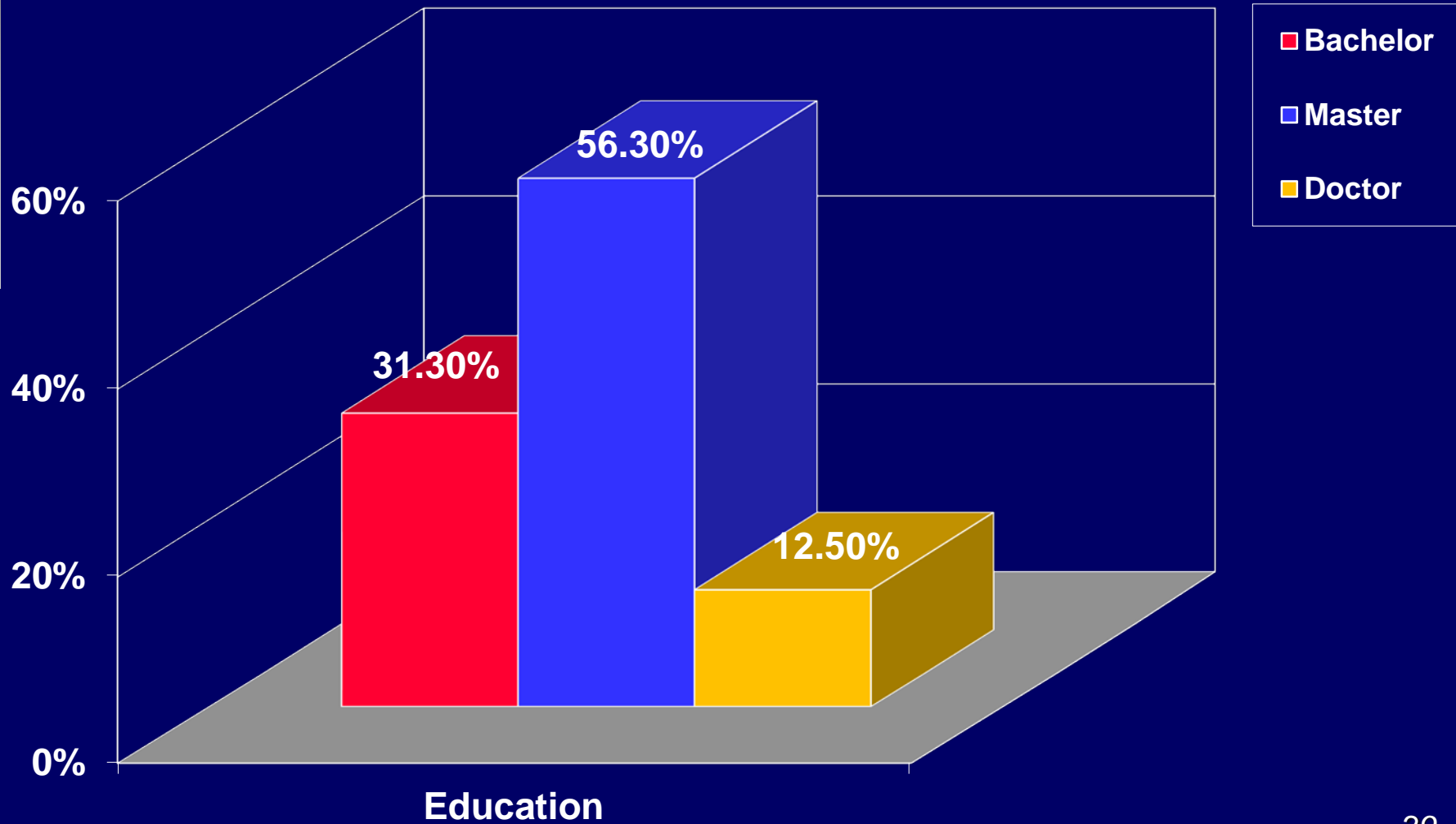
Age



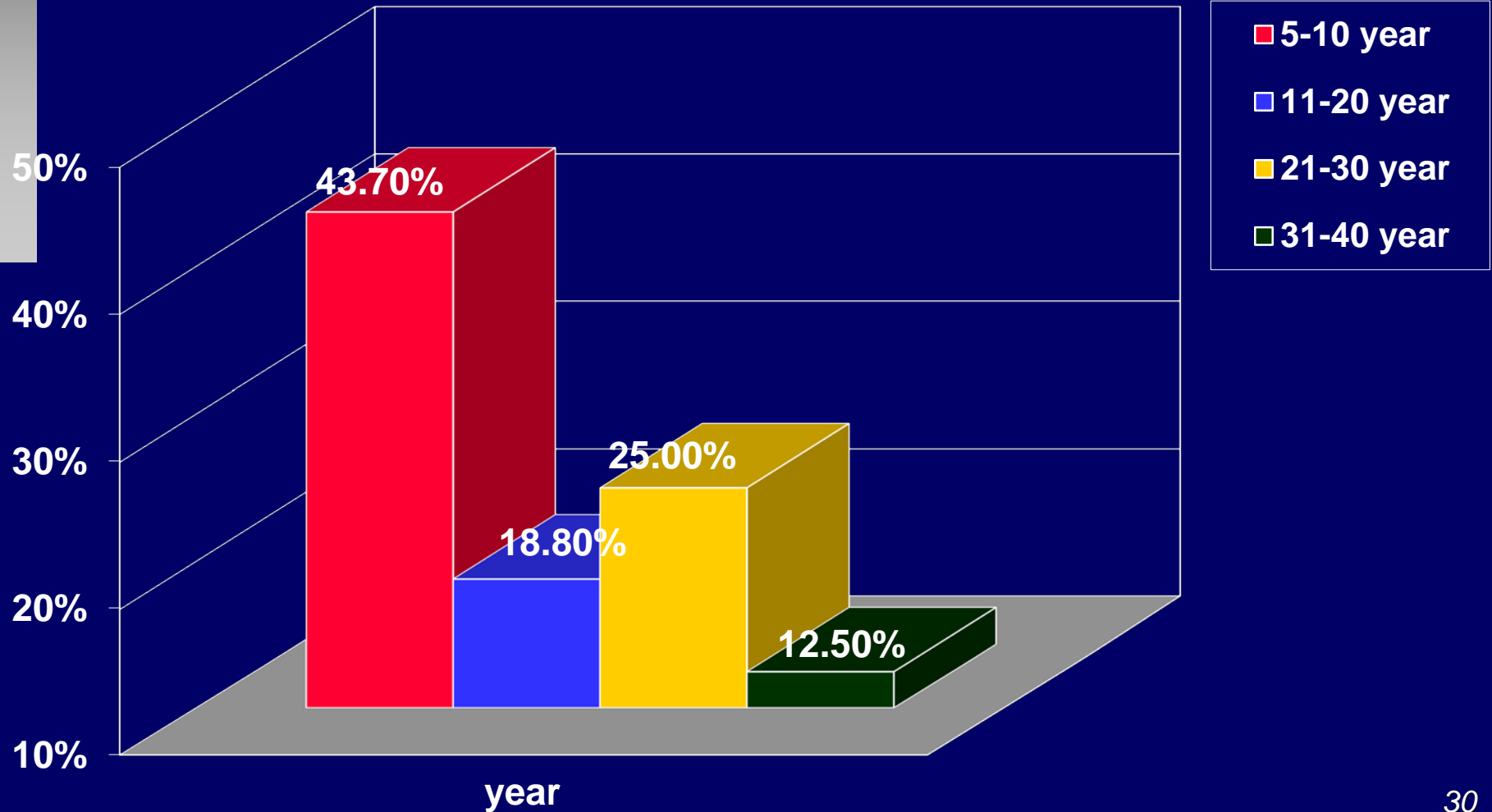
Gender



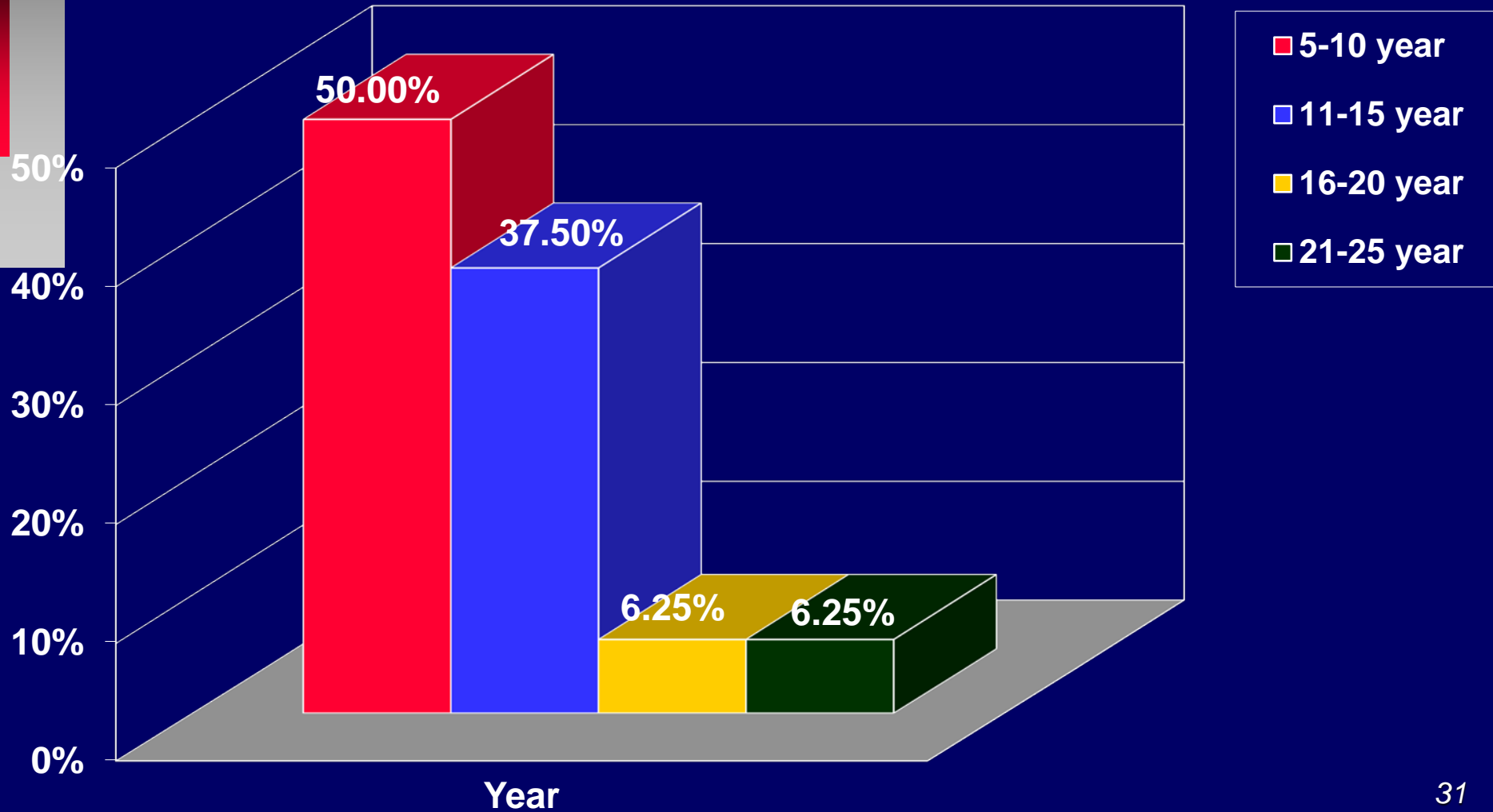
Education



Professional Working Experience



Working with Older Adults



Experts' Evaluation (N = 16)

Phases/ Exercises	Criteria	Simplicity (M ± SD)	Safety (M ± SD)	Suitability (M ± SD)	Helpfulness (M ± SD)
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I: Activating qi and blood

Expanding the chest	3.94 ± 0.25	3.94 ± 0.25	4.00 ± 0.00	4.00 ± 0.00
Swinging the arms	3.88 ± 0.50	3.94 ± 0.25	3.94 ± 0.25	4.00 ± 0.00
Thanking heaven and earth	4.00 ± 0.00	3.81 ± 0.40	3.94 ± 0.25	3.94 ± 0.25
Turning the torso	4.00 ± 0.00	3.94 ± 0.25	3.88 ± 0.34	3.94 ± 0.25
Embracing chest and lifting legs	3.81 ± 0.54	3.81 ± 0.40	3.81 ± 0.40	3.87 ± 0.34

Experts' Evaluation (N = 16)

Phases/ Exercises	Criteria	Simplicity (M ± SD)	Safety (M ± SD)	Suitability (M ± SD)	Helpfulness (M ± SD)
II: Punching meridians					
Punching shoulders with phoenix fist		3.88 ± 0.34	4.00 ± 0.00	3.87 ± 0.34	3.94 ± 0.25
Punching upper chest with phoenix fist		3.88 ± 0.34	3.94 ± 0.25	3.88 ± 0.34	4.00 ± 0.00
Punching armpits with tiger fist		4.00 ± 0.00	4.00 ± 0.00	3.94 ± 0.25	4.00 ± 0.00
Punching outer arms with phoenix fist		3.94 ± 0.25	3.88 ± 0.50	3.69 ± 0.60	3.81 ± 0.40
Punching forearms with dragon fist		3.81 ± 0.54	4.00 ± 0.00	3.87 ± 0.50	4.00 ± 0.00
Punching center chest with palm beat		4.00 ± 0.00	4.00 ± 0.00	3.87 ± 0.34	3.87 ± 0.50
Punching scapulars with palm beat		3.94 ± 0.25	4.00 ± 0.00	3.75 ± 0.58	3.88 ± 0.34

Experts' Evaluation (N = 16)

Phases/ Exercises	Criteria	Simplicity (M ± SD)	Safety (M ± SD)	Suitability (M ± SD)	Helpfulness (M ± SD)
II: Punching meridians					
Punching lower ribs with palm beat		4.00 ± 0.00	4.00 ± 0.00	3.94 ± 0.25	4.00 ± 0.00
Punching lower abdomen with palm beat		4.00 ± 0.00	3.94 ± 0.25	3.94 ± 0.25	4.00 ± 0.00
Punching lower back with back beat		3.94 ± 0.25	4.00 ± 0.00	3.94 ± 0.25	4.00 ± 0.00
Punching buttocks with tiger fist		3.88 ± 0.34	3.94 ± 0.25	4.00 ± 0.00	4.00 ± 0.00
Punching forelegs with trunk fist		3.87 ± 0.50	3.81 ± 0.54	4.00 ± 0.00	4.00 ± 0.00
Punching inner legs with dragon fist		4.00 ± 0.00	3.94 ± 0.25	3.88 ± 0.50	4.00 ± 0.00
Punching outer legs with phoenix fist		3.94 ± 0.25	3.94 ± 0.25	3.94 ± 0.25	4.00 ± 0.00

Experts' Evaluation (N = 16)

Phases/ Exercises	Criteria	Simplicity (M ± SD)	Safety (M ± SD)	Suitability (M ±SD)	Helpfulness (M ± SD)
III: Relaxing body and mind					
Shouting to the sky		4.00 ± 0.00	4.00 ± 0.00	3.94 ± 0.25	4.00 ± 0.00
Calming with palms clasped		4.00 ± 0.00	4.00 ± 0.00	3.94 ± 0.25	4.00 ± 0.00
Soothing the cheeks		4.00 ± 0.00	4.00 ± 0.00	3.94 ± 0.25	4.00 ± 0.00
Warming the body		4.00 ± 0.00	4.00 ± 0.00	3.94 ± 0.25	3.81 ± 0.40
Massaging the thighs		4.00 ± 0.00	3.94 ± 0.25	3.94 ± 0.25	4.00 ± 0.00

Conclusions

- **16 experts from 8 professional fields were consistent in evaluating HBA for its simplicity, safety, suitability, & helpfulness.**
- **Experts only provided *minor revision suggestions* or *teaching reminders* for some of the exercises.**
- **Experts confirmed that the HBA program was *feasible to community older adults*.**
- **Based on the experts' suggestions, the developed HBA program is comprised of *3 phases with 24 motions*, and takes *40 minutes* to complete:**
 - **Activating qi & blood (5 motions, 10 minutes)**
 - **Punching meridians (14 motions, 20 minutes)**
 - **Relaxing body & mind (5 motions, 10 minutes).**

Clinical Implications & Further Research

- *Global nurse practitioners or researchers who are interested in health promotion and/or health maintenance of older adults could further test the **effects of the HBA program on older adults** in order to disseminate the program as a health promotion activity for older adults in community.*

Comments & Questions

