

Restoring sleep tranquility and occupational harmony: A feasibility and pilot study

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PART 01

Background

Sleep: A daily essential "occupation"

- Sleep is **one of the most important lifelong occupational activities**
- It plays a crucial role in both **physical and mental health**, as well as in **disease recovery**
- For most people, it is almost the sole **restorative occupation** for energy recovery and regeneration.
- **48.5%** of adults are troubled by sleep problems
- **500 million people in China have sleep disorders**



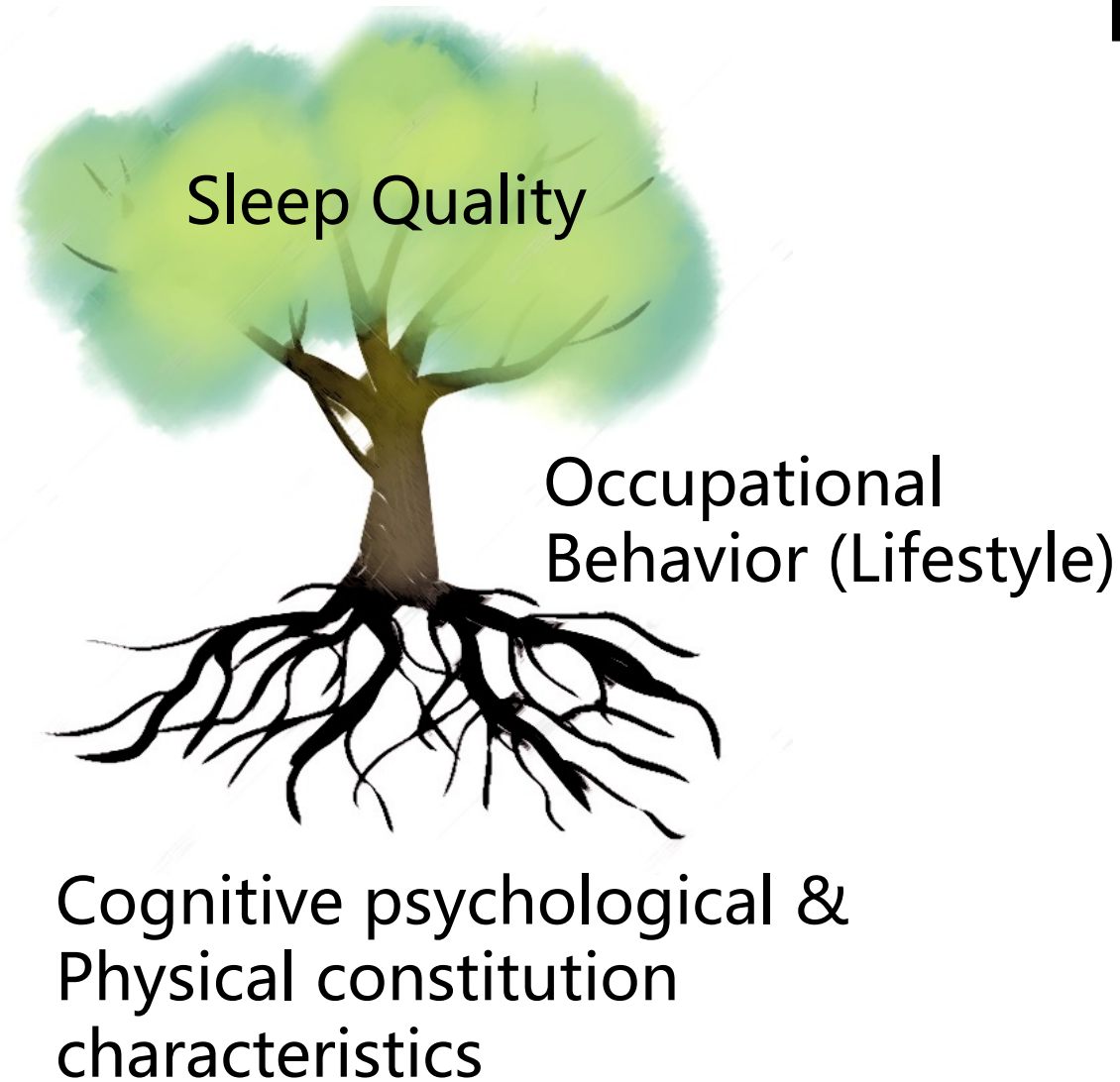
Adolf Meyer

a **balance** among the “**big four**—
work and **rest**
and **play** and **sleep**” through “actual
doing” (1922, p. 6)
*-The Philosophy of Occupational
Therapy*



The MOHar Sleep Solution

Basic Assumption



Good Sleep



Occupational Harmony



Physical and mental health

Treatment addressing the root cause— adjusting cognitive perspectives, optimizing occupational patterns, enhancing occupational harmony, and improving sleep and quality of life.

PART 02

Research Design

Research Objectives

- Explore the feasibility and effectiveness of MOHar-based intervention for sleep disturbances.
 - ❑ Develop **occupational assessment** and **intervention protocols**
 - ❑ Evaluate **intervention effects** using MOHar
 - ❑ Explore **recovery processes and mechanisms**



Study Design

- **Study Design:** Single-arm, pre-post trial
- **Participants:** Individuals who reported sleep-related complaints with PSQI > 5, or ISI ≥ 8.
- **Outcomes:**
 - ❑ Sleep Quality (PSQI)
 - ❑ Insomnia Severity (ISI)
 - ❑ Health-Related Quality of Life (SF36)
 - ❑ Mood Symptomatology (SAS/SDS)
- Inclusion Criteria
 - ❑ Age ≥ 18 years
 - ❑ Self-reported sleep problems
 - ❑ PSQI > 5 or ISI ≥ 8
 - ❑ Able to participate independently or with caregiver assistance
 - ❑ Informed consent
- Exclusion Criteria
 - ❑ Unable to cooperate due to cognitive/sensory/motor impairments
 - ❑ Unable to use wearable devices/smartphones
 - ❑ Severe organ dysfunction or neurological diseases
 - ❑ Cardiac pacemaker
 - ❑ Pregnancy
 - ❑ Participation in other clinical studies

ISI: Insomnia Severity Index
 PSQI: Pittsburgh Sleep Quality Index
 SAS: Zung Self-Rating Anxiety Scale
 SDS: Zung Self-Rating Depression Scale
 SF-36: 36-item Short-Form

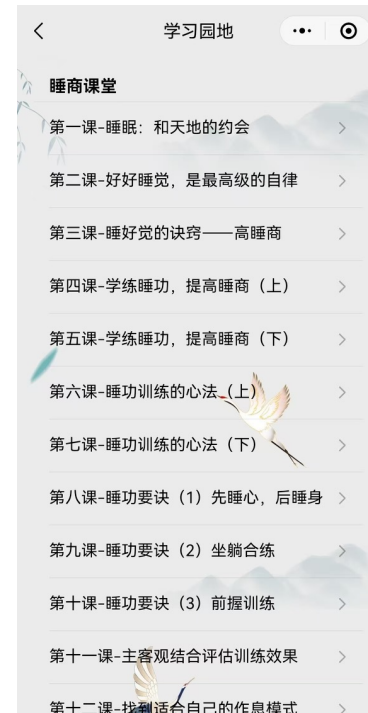
Intervention & Timeline

- **Occupational therapy intervention:** 3 group sessions + 1 individual session + daily occupational tasks
- **Goal:** Improve occupational harmony, enhance sleep and quality of life
- **Content:** Optimize content, schedule, rhythm, and completion methods of occupational activities
- **Daily Occupational Tasks:**
 - ❑ Evening Tasks (Sleep preparation training, daily review and reflection)
 - ❑ Daytime Tasks (Occupational logging)
 - ❑ Morning Tasks (Wakefulness training, nocturnal sleep evaluation)
- **Group Activities:**
 - ❑ Occupational Harmony / Sleep Science Lectures
 - ❑ Occupational Issue Discussions
 - ❑ Sharing of Practical Insights and Experiences
- **Intervention - Follow-up Timeline**



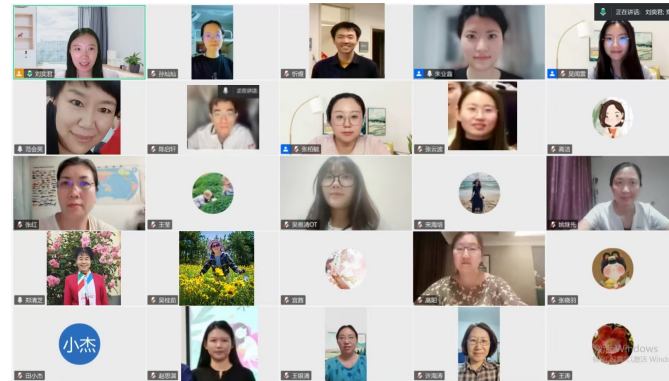
Establish an online platform for occupational harmony

- Relying on the online platform, we carry out online occupational therapy interventions in the form of the "Occupational Harmony Sleep Training Program."



Main Components of the MOHar sleep program

- **Sleep Kung:** A traditional Chinese sleep training practice with more than a thousand years of history.
- **Group training:** Online quiescence breathing training and group discussions, modify bedtime routine, and change habits as a group
- **Lifestyle intervention:** Enhance quiet engagement, such as reading books, watching quiescence classics videos, journaling, etc.
- **Mind-body exercises:** Zhan Zhuang (standing meditation), Ba Duan Jin (eight-section brocade), Yi Jin Jing (Muscle Tendon Change Classic)



PART 03

Results

Outcomes of the MOHar sleep program

- The PSQI, ISI, SAS, and SDS scores of the 39 participants were all lower than those before the intervention.

Differences in primary outcome measures before and after the 6-week intervention (N=39)

	Baseline (M±SD)	Post-intervention (M±SD)	t/z	P value
PSQI	11.69±4.11	7.44±3.97	33.5 (Z)	<0.001
ISI	13.51±4.79	7.44±4.61	22 (Z)	<0.001
SAS	48.49±8.85	39.49±6.49	35 (Z)	<0.001
SDS	53.33±11.04	45.13±10.41	5.01 (t)	<0.001

Outcomes of the MOHar sleep program

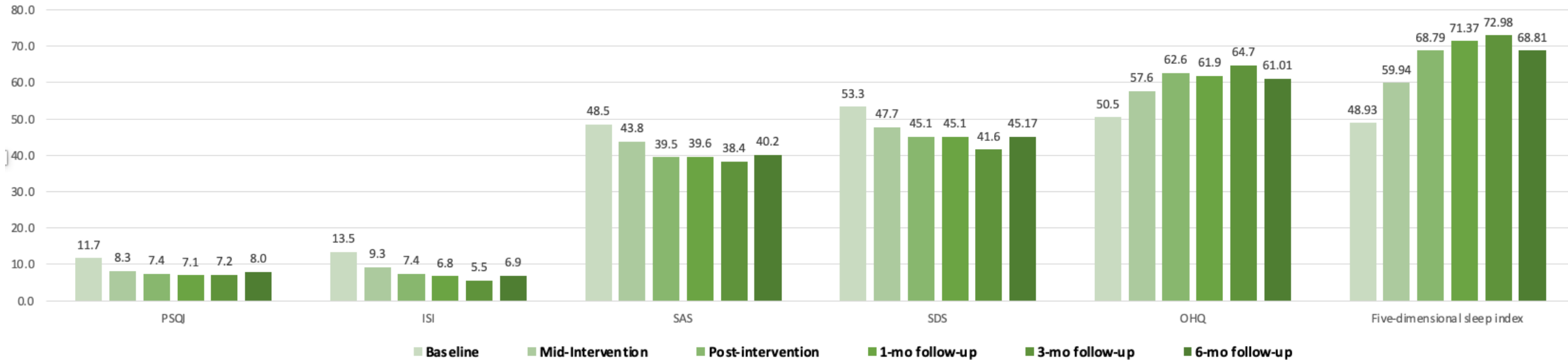
Comparison of SF-36 dimensions before and after the 6-week intervention(N=39)

	Baseline (M±SD)	Post-intervention (M±SD)	t/w	P value
General health	49.23±21.42	67.56±21.61	-5.77 (t)	<0.001
Social functioning	64.29±20.83	78.27±19.53	121.5 (w)	<0.001
Health change	44.23±30.06	60.90±29.69	65 (w)	0.007
Bodily Pain	69.81±20.15	78.72±16.55	52.5 (w)	0.002
Vitality	54.87±20.63	70.64±15.44	-5.51(t)	<0.001
Physical Functioning	82.56±12.92	90.77±11.62	82 (w)	<0.001
Role functioning/physical	43.59±39.62	69.87±38.55	71.5 (w)	0.003
Role functioning/emotional	36.75±42.44	76.92±34.34	39 (w)	<0.001
Emotional well-being	55.59±22.27	69.95±18.58	94.5 (w)	<0.001

Follow-up of the MOHar sleep program

- Continued improvement in sleep quality and occupational harmony, as well as reduction in insomnia, depression, and anxiety symptoms are observed at the 1-month, 3-month and 6-month follow-up.

The Comparison of Outcome Measurement Scores at Each Time Point (N=39)



Abbreviations: PSQI, Pittsburgh Sleep Quality Index; ISI, Insomnia Severity Index; SAS, Zung Self-Rating Anxiety Scale; SDS, Zung Self-Rating Depression Scale; OHQ, Occupational Harmony Questionnaire

PART 04

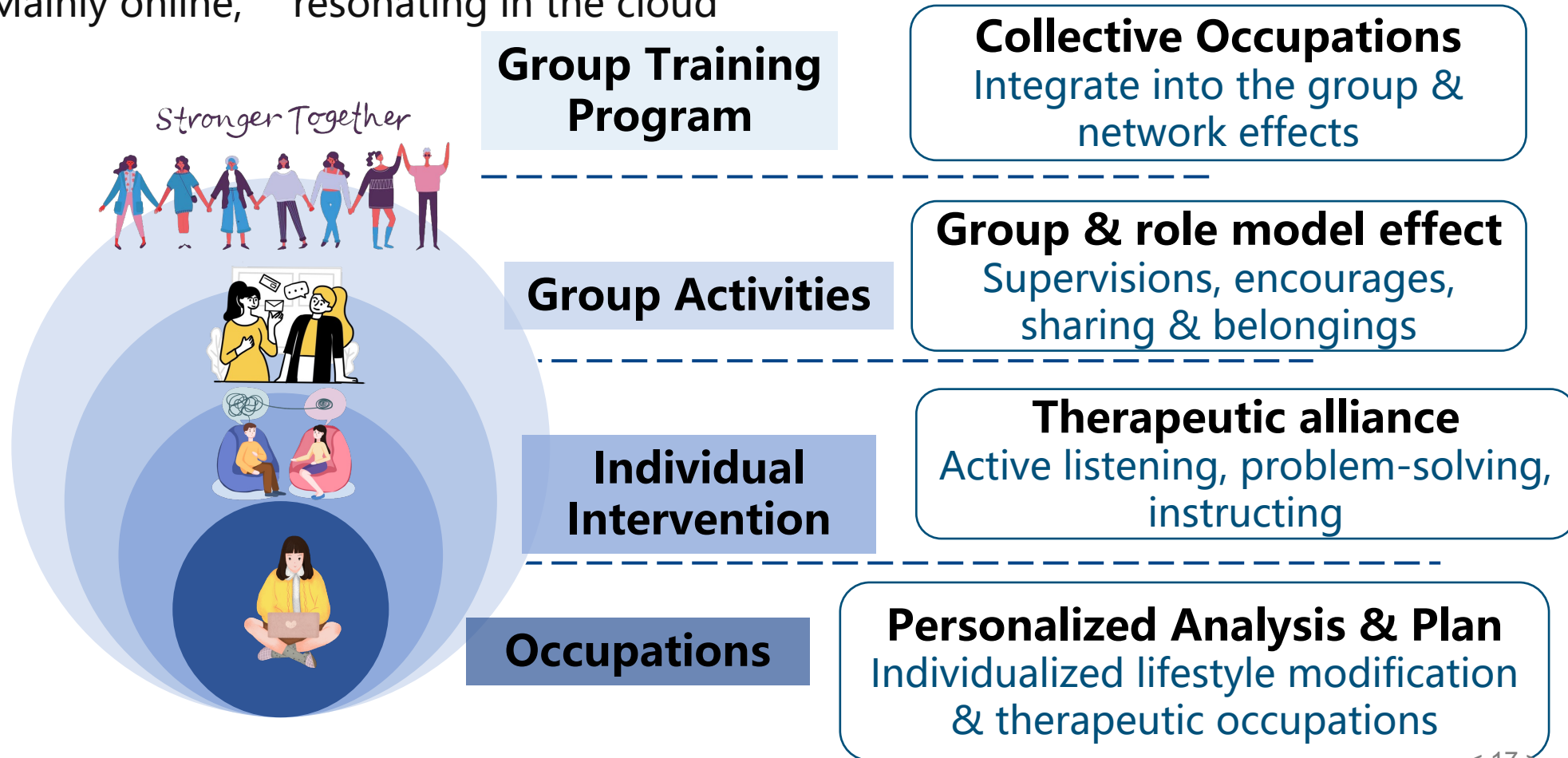
Conclusion

Characteristics of the MOHar sleep program

- Rooted in traditional Chinese culture: Integrating OT with traditional Chinese health and wellness practices
- Individual-team interaction: engaging in therapeutic occupations individually and as a group
- Light Service: Mainly online, 'resonating in the cloud'



The smart wristband records heart rate during sleep and the sleep energy accumulation can be calculated.



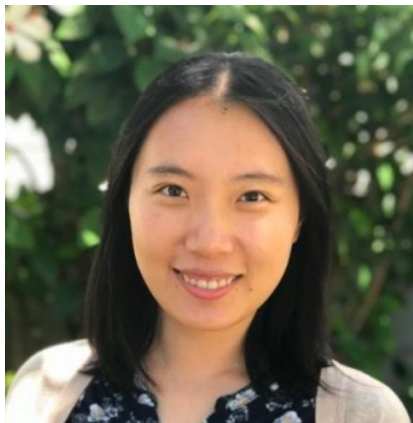
Conclusion

- The occupation-based sleep program grounded in the MOHar shows promise as an effective treatment for sleep disturbances.
- This approach provides empirical evidence for an occupation-centered sleep intervention, which can enhance both sleep health and occupational harmony.
- By integrating occupational principles with sleep science, this program addresses the complex interplay between daily activities and sleep quality, offering a novel pathway to improve overall well-being.

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Q&A



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Thank you!