Effect of Acupressure (Chinese manipulative therapy) on the quality of sleep in Chinese old adults with Intellectual disabilities (ID): A pilot study and on going project

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Introduction

Past studies reported acupressure could improve sleep disturbances in persons with sleep disorders. Nocturnal sleep problem is common in persons with intellectual disabilities (ID). No studies about the effect of acupressure applied on back and head to improve sleep quality in Chinese population with ID has been reported.

Objective

To investigate the effectiveness of acupressure on the quality of sleep in Chinese old adults with ID.

Methodology

Design: A one group pre-test/post-test design

Setting: Hostel setting

Inclusion criteria
- Age 50 years old or above
- Diagnosis of Intellectual disabilities by DSM-5 criteria
- Mentally stable
- Willing to participate in this study

Exclusion criteria
- Skin conditions on back and head which impede the administration of acupressure treatment, such as: eczema, scald, ulcers and open wound
- Medical conditions on spine and head, such as: tumors
- Infectious diseases, such as: hepatitis, TB
- Fracture and joint dislocations
- Sleep apnea
- On sleeping medications

Intervention

Each session composed of: A 10-minute spinal column acupoints (EX-B2) pinching massage, and then followed by a 5-minute gentle acupoints massage on each of the head acupoints (DU-20, DU-24, ST-8 and EX-HN1)

Dosage

2 to 3 sessions of acupressure treatment per week for 20 consecutive weeks

Statistical Analysis

- SPSS version 19.0
- Paired-Sample T-test are used to test if the means of two paired measurements are significantly different

Results

Demographic data

<table>
<thead>
<tr>
<th>No. of subjects</th>
<th>20 (3 with Dementia)</th>
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</thead>
<tbody>
<tr>
<td>Mean age (SD)</td>
<td>58.4 ± 9.7</td>
</tr>
<tr>
<td>Gender (male/female)</td>
<td>9 : 11</td>
</tr>
<tr>
<td>Level of intellectual disabilities</td>
<td>Mild to severe</td>
</tr>
<tr>
<td>No. of co-morbid medical conditions</td>
<td>1 or above</td>
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</tbody>
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Sleep quality (Measured by Global PSQI score)

Change in global PSQI scores before and after treatment

- The global PSQI score of subjects reduced from 8.5 to 6.2 (p<0.01) after 20 weeks of treatment.
- PSQI subscores: including sleep latency, sleep disturbances and daytime dysfunction components also significantly improved (p<0.01) after intervention.

Conclusion

- First study to examine the effect of acupressure (a combination of both Niê jî with Tui na) on the sleep quality of Chinese old adults with ID.
- Back and head acupressure can improve the sleep quality of Chinese old adults with ID in supported hostels.
- This low cost, non-pharmacological intervention has a positive impact towards the quality of life of our clients.
- Further study with larger sample size is therefore recommended for other ethnic populations with ID.