ABSTRACT

Eating difficulties is the complaint of most parents when it comes to pediatricians. Eating difficulties continuously results in decreased calorie intake needed so that it can affect the growth and development of children. Acupressure can be a non-pharmacological therapy choice for increasing a child's appetite. Acupressure is a form of physiotherapy by providing massage and stimulation at specific points on the body.

The purpose of this study was to determine the effectiveness of acupressure therapy to increase appetite in infants aged 1-5 years. In this study used pre-experimental design with one group pre post-test approach. The variables in this study were acupressure therapy and appetite. Respondents are children aged 1 to 5 years. The treatment is acupressure therapy six times (once in three days). The pretest is done before acupressure therapy with weight measurement and posttest weight measurement after surgery. Paired T Test tested analysis of the two data. The results of this study indicate a T-test correlation of 0.952 with a significance value of 0.000 where α = 5% = 0.005 so that 0.000 <0.005, which means that there is an influence of Tui Na acupressure on increasing toddlers' appetite based on weight gain.

INTRODUCTION

According to the Indonesian Ministry of Health (2010), childhood is a golden period and a critical period for brain development. Optimal brain growth and development requires an environment that can stimulate and adequate nutrition.

Poor nutrition is a risk factor for a disease, which will further worsen nutritional status. 45% of under-five deaths are related to malnutrition. In addition to undernutrition and malnutrition, stunting is also increasing in Indonesia. The impact of the poor nutrition and stunting can last a lifetime, resulting in poor quality of life, decreased school performance, reduced productivity, and impaired intellectual and social development(1).

Based on the results of Riskesdas conducted by the National Research and Development Agency in 2018 it is known that the prevalence of stunting toddlers...
nationally reaches 30.8%. From 2018, Health Office data, East Java stunting cases are in the range of 22%. And from primary health research data in 2018, the stunting condition in Sidoarjo Regency was 23.9%. This prevalence is above the universally agreed threshold, the limit of non-public health problems tolerated by the World Health Organization (WHO) is only 20% or one-fifth of the total number of children under five in a country.

Toddler dietary status is a reflection of the size of meeting the nutritional needs of children under five obtained from the intake and use of nutrients by the body(2). The most important behaviour that can affect nutritional conditions is diet(3).

Children under five years old (toddlers) are an age group that is vulnerable to nutrition and health. At this time, the child's immune system is still not secure, so it is susceptible to infectious diseases. Besides, children also have bad eating habits, which are children often do not want to eat or decreased appetite, causing reduced nutritional status and child development and growth disturbed(4).

Eating is the most critical process in a child's growth and development. Appetite or appetite is usually interpreted as a sense of pleasure or desire caused by food stimulation, in the form of aroma or appearance, and the decision to choose certain foods(5). Eating difficulties is the complaint of most parents when it comes to paediatricians. Eating difficulties continuously results in decreased calorie intake needed so that it can affect the growth and development of children(1).

The results of Sudibyo & Mulyani's research (2009), the most age group having difficulty consumption is aged 1 to 5 years (58%), with the most male sex (54%), (43%) subjects have underweight nutritional status. Complaints 72% have been experienced for more than six months, 50% have complaints of weight gain disorders. This certainly creates problems for parents(6). Efforts to overcome the difficulty of eating can be made by pharmacology and non-pharmacology. Efforts with pharmacology include the provision of multivitamins and other micronutrients. Whereas non-pharmacology includes herbal or herbal drinks, massage, acupressure, and acupuncture(7).

When this has been popularized again from baby massage techniques namely, Tui Na massage. Tui Na Massage is a more specific massage technique to overcome the difficulty consumption in infants by accelerating blood circulation in the spleen and digestion, through modification of acupuncture without needles. This technique uses an emphasis on the body's meridian points or energy flow lines so that it is relatively easier to do compared to acupuncture(8).

**METHOD**

The research design used pre-experimental design with one group pre-post design approach. The population in this study were all children aged 1-5 years who came to Holistic Care Mom & Baby Spa Tata Sukodono Sidoarjo in January - March 2020. Samples were 20 toddlers with criteria of under five in healthy condition and decreased appetite. The sampling technique in using the accidental sampling technique. Data collection in this study, was carried out pretest by weight measurement before acupressure and posttest therapy after treatment was given. Acupressure is done six times (every three days for 15 minutes). Paired T-Test analyzed data. The significance level used is α = 0.05

**RESULTS**

Table 1. Age Frequency Distribution of Toddlers who come to Holistic care Mom & Baby Spa Tata Sukodono Sidoarjo
Based on table 1 above, it is known that most of the respondents (80%) are aged 12 to 36 months.

Table 2. Weight after Acupressure Tui Na

<table>
<thead>
<tr>
<th>Weight</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase</td>
<td>19</td>
<td>95</td>
</tr>
<tr>
<td>Down</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Permanent</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 2, it was shown that after the Tui Na method of Acupressure almost entirely (95%) of toddler body weight increased.

Table 3 Analysis of Average Toddler’s Weight Gain for Pre-Post Acupressure Tui Na

<table>
<thead>
<tr>
<th>Pair</th>
<th>Weight (Pretest and Post-test)</th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Weight</td>
<td>20</td>
<td>.952</td>
<td>.000</td>
</tr>
</tbody>
</table>

Based on table 4 above shows that the value of the T-test correlation of 0.952 with a significance value of 0.000 where $\alpha = 5\% = 0.005$ so that $0.000 < 0.005$ which means there is an influence of Tui Na acupressure on toddlers weight gain, and can also be interpreted that Tui Na massage is sufficient increase toddler weight. Correlation value of 0.952 shows that Tui Na massage is very carefully related to toddler weight gain.

**DISCUSSION**

In this study, as shown in tables 2, 3 and 4, it can be seen that Tui Na acupressure is effective in increasing toddler appetite so as to increase toddler weight.

Tui Na massage is a non-pharmacological method that can increase appetite. One of the advantages of Tui Na is its ability to increase and balance the energy of the body, in addition, Tui Na massage has much less effect compared to chemical drugs. In the treatment of childhood anorexia, the results suggest that Tui Na may have an increased effect compared to oral drugs for children with anorexia$^{(9)}$.

The most common cause of eating difficulties in toddlers is due to impaired spleen and digestive function. So that the food that enters the stomach is not digested immediately, which results in stagnation of food in the digestive tract, complaints submitted by parents regarding this problem are children often vomiting, nausea when
fed, and the stomach feels full so that it reduces appetite\textsuperscript{(10)}.

In TCM theory, the spleen and stomach play a role in digesting water and food and nourishing other organs. This function makes them called the basis of the constitution obtained. Therefore, anorexia in children is mainly due to spleen and gastric dysfunction. Therapeutic massage can effectively improve the function of the spleen and stomach by stimulating the appropriate acupuncture points. This method is simple, effective and safe, which plays an important role in the treatment of anorexia\textsuperscript{(9)}.

In order for appetite to return to normal, massage is carried out at points ST36 (Zusanli), CV12 (Zhongwan), SP3 (Taibai), SP6 (San Yinjio)\textsuperscript{(13)}. Pressing the Zusanli point (ST36) has the effect of strengthening the spleen and stomach. Emphasis on the Zhongwan acupuncture point (CV12) located in the anterior midline of the abdomen, 4 cun above the umbilicus can relieve abdominal pain, abdominal distension, loss of appetite, vomiting, malnutrition and indigestion syndrome in children\textsuperscript{(9)}.

Acupressure Tui Na, is able to overcome feeding difficulties in toddlers by improving blood circulation to the spleen and digestion, through emphasis on the body’s meridian points or energy flow lines. Smooth blood circulation in the lymph and digestive system will make your appetite increase and absorption of nutrients / nutrients is more optimal as a result, it can increase body weight\textsuperscript{(9)}.

CONCLUSIONS

Most toddlers gain weight after the Tui Na method of acupressure therapy. Tui Na method of acupressure therapy is effective in increasing under five children weight \( (p\text{-value} \ 0.00 < \alpha (0.05)) \) with close correlation \((0.952)\). Based on the conclusions, the authors suggested to parents to apply tuina massage as an non-pharmacological therapy in dealing with complaints lack of children’s appetite.

REFERENCES