Tension release in piano playing: Teaching Alexander Technique to undergraduate piano majors

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Abstract

This article explores the effectiveness of Alexander Technique in reducing tension in piano playing. Much of the literature regarding the Alexander Technique tends to be guide books for various uses targeting actors, musicians, sportsmen and so forth. There are also a growing number of alternative medical research studies that examine the effectiveness of the Alexander Technique in reducing disability in Parkinson disease, improving postural equilibrium, and relieving back pain. However in the area of music performance, little empirical research has been carried out. In this study, fifteen undergraduate piano majors from a local university in Malaysia were recruited as research subjects. Four major principles of the Alexander Technique were employed in this test. Observation was carried out and a report of tension in certain body parts was recorded. The subjects went through fourteen week of lessons taught by an Alexander Technique instructor, and a survey was carried out. The results indicate a positive outcome that Alexander Technique may help pianists to reduce tension.

Keywords: Alexander Technique, piano, relaxation, tension, performance

1. Introduction

The actor Frederick Matthias Alexander (1869-1955) discovered and created the Alexander Technique as a response to chronic hoarseness that could not be resolved by the medical field. Through years of self-observation, the actor developed a method to improve the use of self, which is known today as the Alexander Technique (Alcantara, 2013). Gelb (1996) expresses that defining the technique with words may be limited as Alexander
Technique is an experience that involves liberation from the manipulation of fixed or faulty habits. Existing literature states that the Alexander Technique is not only useful to actors but can also be effective for musicians and athletes such as McEvenue (2001), Harer and Munden (2008), Leibowitz and Connington (2011). Though, after reviewing the studies in sportsmen, Frontera (2007) explains that “although there are theoretical benefits of this type of technique to athletes, there are no scientific studies on the effect of the Alexander Technique on athletic performance. Despite the lack of evidence, the technique continues to be used widely by performing artists, in particular” (p. 318). A broad definition of the Alexander Technique is as follows:

1. A technique that teaches how to use oneself more efficiently
2. A technique that teaches how to inhibit the habitual pattern of misuse (tension and contraction), and how to consciously redirect oneself toward a more beneficial use (expansion and flow)
3. A technique that teaches how to create space between stimulus and reaction so that a different and more beneficial choice can be made regarding the use of oneself (Alcantara, 2013).

These definitions imply a wide potential application of the Alexander Technique. For example, there is a growing number of research concerning its medical use such as Stallibrass (1997), Dennis (1999), Stallibrass, Sissons and Chalmers (2002), Ernst and Canter (2004), Stallibrass, Frank, and Wentworth (2005), Cacciatore, Horak and Henry (2005), Little, Lewith, and Webley et al. (2008), and Woodman, J. P., & Moore, (2012). Studies by Dennis (1999), Cacciatore et al. (2005) and Little et al. (2008) examine the Alexander Technique relating to postural equilibrium and reducing back pain. On the other hand, research by Stallibrass and Hampson (2001), Stallibrass et al. (2002) and Stallibrass, Frank, and Wentworth (2005) explored the effect of Alexander Technique in Parkinson patients. Though in a 2004 review, Ernst and Canter (2004) noted that not every test in Alexander Technique is proven effective in patients with Parkinson and back pain, while Woodman and Moore (2012) found that there is solid evidence that demonstrates the effectiveness of the Alexander Technique in relieving back pain but only moderate proof in reducing disability in Parkinson’s patients. The researchers also assert that although there is early evidence stating potential in improving postural equilibrium for the elderly, back pain and respiratory system, evidence is not adequate for recommendations as an alternative medicine.

In terms of relaxation and tension release for musicians, Watson (2009) explains that all relaxation technique can help deal unconscious muscular tension. However, Berman (2002) points out the dilemma regarding the balance between the absence of physical effort and the need to execute movement. Literature reviews concerning relaxation techniques for the piano such as by Whiteside (1961), Leimer and Gieseking (1972), Bomberger (1991), Ortiz (1997), and Berman (2002) reveals that there is no straightforward approach to define passivity in activity (see Loo, 2010; Loo and Loo, 2011; Loo and Loo, 2012; and Loo and Loo, 2013). Loo and Loo (2011) suggest the application of taiji yin and yang principles in understanding the balance between tension and relaxation. However, there has been a lack of literature considering a quantitative approach in examining relaxation technique. After reviewing various relaxation technique and principles, this study examines the effect of Alexander Technique to fifteen undergraduate piano majors who reported tension in playing.

2. Methods

The aim of this research is to test the effectiveness of Alexander Technique in reducing tension in piano playing. A pretest score reporting tension in certain body parts was collected before the first session, and after fourteen weeks of intervention, a posttest score was gathered and compared. Fifteen volunteer piano major undergraduate students were selected participants after a pretest score identified problems of tension. The pretest score was gathered using an evaluation instrument of eight items (fingers, hands, arms, wrists, shoulders, back, legs, and neck) where the participants identified where tension occurs using a five-point Likert scale (1 = Severely tensed; 2 = Tensed; 3 = Somewhat tensed; 4 = Mildly tensed; and 5 = Very mild tension). The participants then received an intervention of Alexander Technique training in a group class where each session lasted three hours. The lesson was conducted once per week by an AmSAT-certified Alexander Technique instructor (second author) and the participants went through a course of fourteen weeks. A one-to-one session of ten minutes was given to each participant while others observed.

A guide book from Gelb (1996) was used throughout the fourteen weeks intervention by the instructor. During the intervention, the participants were taught four major principles from the Alexander Technique: recognition of habit, inhibition, direction and primary control (Kleinman and Buckoke, 2013, p. 184):
1) Recognition of habit: The participants gained awareness of the force of habit that governs all of their actions. Specific attention was brought to the movements related to playing the piano.

2) Inhibition: After gaining some awareness of the habitual tension related to their movements, the participants were taught to inhibit faulty habits such as excessive tension so that they could ultimately move with more freedom.

3) Direction: After recognizing the force of habit and then learning how not to react, the participants were taught how to redirect themselves to effect a positive change in their use of self.

4) Primary Control: The participants discovered how the relationship between the head, neck and the back constitutes a primary control for the organization of whole body, and that if these parts were used poorly, there is a general instability throughout the whole body.

A posttest evaluation instrument was used after the participants completed fourteen weeks of intervention with the same items as in the pretest. A paired-sample $t$ test was used to analyze the difference between the pre- and posttest score.

3. Results

In the pretest score, the participants reported tension in their fingers, hands, arms, wrists, shoulders, back, legs and neck (see Table 1). In the posttest score (see Table 2), the participants reported a significant decrease in tension.

### Table 1. Pretest score

<table>
<thead>
<tr>
<th>Items</th>
<th>$N$</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fingers</td>
<td>15</td>
<td>2.40</td>
<td>.986</td>
</tr>
<tr>
<td>Hands</td>
<td>15</td>
<td>2.53</td>
<td>1.060</td>
</tr>
<tr>
<td>Arms</td>
<td>15</td>
<td>2.53</td>
<td>.990</td>
</tr>
<tr>
<td>Wrist</td>
<td>15</td>
<td>2.87</td>
<td>1.302</td>
</tr>
<tr>
<td>Shoulders</td>
<td>15</td>
<td>2.00</td>
<td>1.195</td>
</tr>
<tr>
<td>Back</td>
<td>15</td>
<td>2.27</td>
<td>.799</td>
</tr>
<tr>
<td>Legs</td>
<td>15</td>
<td>3.53</td>
<td>1.060</td>
</tr>
<tr>
<td>Neck</td>
<td>15</td>
<td>3.07</td>
<td>1.163</td>
</tr>
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</table>

### Table 2. Posttest score

<table>
<thead>
<tr>
<th>Items</th>
<th>$N$</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fingers</td>
<td>15</td>
<td>3.67</td>
<td>.724</td>
</tr>
<tr>
<td>Hands</td>
<td>15</td>
<td>3.67</td>
<td>.617</td>
</tr>
<tr>
<td>Arms</td>
<td>15</td>
<td>3.87</td>
<td>.743</td>
</tr>
<tr>
<td>Wrist</td>
<td>15</td>
<td>3.73</td>
<td>.594</td>
</tr>
<tr>
<td>Shoulders</td>
<td>15</td>
<td>4.07</td>
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<tr>
<td>Back</td>
<td>15</td>
<td>3.87</td>
<td>.640</td>
</tr>
<tr>
<td>Legs</td>
<td>15</td>
<td>3.67</td>
<td>.724</td>
</tr>
<tr>
<td>Neck</td>
<td>15</td>
<td>3.60</td>
<td>.828</td>
</tr>
</tbody>
</table>
The data in Table 1 shows that the mean score obtained during the pretest evaluation (M=2.6500 SD =.62714) while Table 2 shows a higher core obtained after the intervention of the Alexander Technique for fourteen weeks in the posttest evaluation (M =3.7667 SD =.37460). A paired \( t \)-test analysis was carried out to test if there is any significant difference between the score before and after the intervention of the Alexander Technique. Based on the results gathered in Table 3, there is a significant differences in tension that occurred in various body parts of the participants between the pre- and posttest (\( t= -5.738, p=.000 \)).

Table 3. Results of paired \( t \)-test between pre and post test scores

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>2.6500</td>
<td>.62714</td>
<td>-5.738</td>
<td>.000</td>
</tr>
<tr>
<td>Posttest</td>
<td>3.7667</td>
<td>.37460</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Discussion and Conclusion

In summary, after a fourteen-week intervention of the Alexander Technique, the outcome reveals a positive effect in reducing tension in pianist. From the posttest score, we gather that there is a significant reduction in tension that was reported by the participants relative to their pretest survey. The results of this study highlight the potential of the Alexander Technique in aiding the relief of tension in piano playing. However, in future studies a higher number of participants should be recruited to give a more accurate quantifiable justification and stronger evidence in showing the effects of Alexander Technique. Further research could also be carried out in testing its long-term effect by performing a longitudinal study.

Acknowledgement

This research is supported by University of Malaya Research Grant (UMRG) under project RP008A-13HNE.

References


