

ABSTRACT –

YOGA THERAPY AND PCOS

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Objective:

The study aimed to determine if symptoms of Polycystic Ovarian Syndrome (PCOS) in women would improve with a yoga therapy intervention and have a positive effect on the underlying causes of PCOS such as insulin resistance and hormonal imbalance.

Methods: The research was based on a single-subject case study with an A-B-A design. The subject was recruited from a group of prior yoga students by way of a request sent to all students that had reported having PCOS. The subject, a 30 year old female, undertook a 12 week yoga therapy intervention program.

Medical tests were taken 2 weeks prior to the treatment beginning to ascertain glucose levels, insulin levels and androgenic hormone levels. The same tests were undertaken 2 weeks after the 12 week program finished. The subject was also asked to complete a 'personal well-being' questionnaire, 4 weeks before treatment commenced, each week during the treatment and also 4 weeks post treatment.

During the 12 week trial, the subject attended a one on one weekly yoga therapy session with the researcher, which involved a range of practices including asana, pranayama and relaxation techniques. The subject also undertook these practices at home between weekly sessions.

Results:

The subject's satisfaction with life as a whole over the treatment period, showed small but not statistically significant improvement. There was a marked improvement in the subject's satisfaction with her health. This improvement was statistically significant ($T=7.0$, $P=.01$) when comparing the first four test periods with the last four test periods.

There was a steady decrease in the subject's level of pelvic pain from the beginning to the end of treatment and although the intensity of the pain was largely unchanged, pains became less frequent. The data collected does indicate a statistical significance ($T=7.0$, $P=.01$) when comparing the first four test periods with the last four test periods.

The most significant change was the improvement in the subject's quality of sleep. There was a marked improvement which was statistically significant ($T=23$, $P=.001$) when comparing the first four test periods with the last four test periods.

There was some reduction in the subject's anxiety levels, towards the end of the trial period. The results were not significant ($P=.1$). There was a small but steady improvement in the subject's satisfaction with her weight over the trial. While under normal accepted significance parameters this improvement was not statistically significant ($T=3.0$, $P=.06$) when comparing the first four test periods with the last four test periods, the results can be regarded as meaningful. The subject lost approximately 3kg in 16 weeks.

The subject's glucose levels were within the acceptable range prior to the yoga therapy intervention at 4.4 mmol/L. The healthy range is from 4.0 to 6.0 mmol/L. Her glucose levels

stayed within the healthy range throughout the study until the post trial tests, when they were tested at 4.6 mmol/L.

Pre-trial fasting insulin levels were well within range of acceptable levels, which means she does not have insulin resistance. As these levels were acceptable to begin with, there was no need for further testing.

The acceptable level of male hormones for women is between 0.5 nmol/L and 2.6 nmol/L. The subject's androgenic hormone levels were below the acceptable range at 0.3 nmol/L at the pre-trial tests. These levels rose to 1.2 nmol/L post treatment, which moved the hormone level to within an acceptable range.

Conclusion:

The results of this study suggest a positive impact of a yoga therapy intervention for a 30 year old woman with PCOS, with a number of indicators of well-being showing a marked improvement during and after the intervention.

In particular, there was a significant improvement in the subject's sleep quality, which went from an average of 2-3 hours per night pre-trial and 6-7 hours per night post-trial, and a marked improvement with the subject's satisfaction of health. The subject's androgenic hormone levels were below the acceptable level prior to the treatment and within the normal range post treatment.

The research suggests that further multiple-subject; controlled studies on yoga therapy interventions for PCOS would be warranted.

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