

ABSTRACT

Background

In order to practice yoga sadhana, a yoga mat is often recommended to provide some level the characteristics such as grip, balance and comfort (the mat must allow the user to practice without feeling the ground). And often biomechanical investigations are conducted to assess grip, balance and comfort. However, yoga mats have never researched upon from the perspective of its add-on effects.

Aim

The aim is to study the influence of various yoga mats made of Cotton, Rubber and Kuça grass on the outcomes of yoga practice.

Materials and Methods

Sixteen self-declared healthy male volunteers, with six or more months of practice to undergo two experimental states i.e., *nadi-shudhi* pranayama and breath awareness on three different yoga mat types: Rubber, *Kuça* and Cotton on consecutive six days. The autonomic variables were assessed in the six sessions. Frequency domain and time domain analysis of HRV data was carried out.

Results and Discussion

The results indicate that, *Kuça* grass mat appear to offer better change across the HRV spectrum. Autonomic nervous system is more stable when one uses *Kuça* mat compared to cotton and rubber mat. The results indicate a significant increase in LF-HF ratio during and immediately after performing the pranayama while seated on cotton and rubber mat. Interestingly, no significant changes were noted in the *Kuça* grass mat.

Conclusion

There is definitely a positive change in the HRV spectrum after performing pranayama while seated on *Kuça* grass mat compared to rubber & cotton mat.

Keywords

Yoga Mat, Pranayama, Alternate Nostril Breathing, Nadi-shuddhi Pranayama, HRV, Eco-Friendly, *Kuça*/*Kusa*/*Kusha*/ Darbha, Cotton, Rubber