ABSTRACT

The aim of this investigation was to study the phenomenology of leg-shaking observed in some individuals and to identify and characterize leg-shaking in terms of descriptions, possible etiology, and links with personality traits, attentional features, cortisol and its genetic basis. Leg-shaking is a motor stereotypy which is rhythmic, repetitive, involuntary or involuntary, patterned and purposeless but seemingly purposeful movement.

The study consists of multiple parts. Exploratory naturalistic observations were done on 22265 individuals in 11 different settings. To study leg-shaking in a college population, a leg-shaking screening questionnaire was formulated and used to identify a matched group of 348 leg-shakers and non leg-shakers.

In an attempt to place leg-shaking in the broader context of personality and attention, the (NEO-PI-R) Neuroticism, Extroversion, Openness-Personality Inventory, the Padua Inventory (PI), the Stroop task and the Paced Auditory Serial Addition Task (PASAT) were used in a college population.

Pedigree analysis was done to study inheritance and gender transmission.

Salivary cortisol analysis was done to study the link if any, between this behavior and the hormone.
All findings in the naturalistic exploratory study were consistent with the hypotheses. Group comparisons revealed that leg-shakers showed all the predicted personality traits of neuroticism, anxiety, angry hostility, depression, impulsiveness, extroversion, positive emotion, excitement seeking, openness, agreeableness, order and dutifulness at significant levels. Predictions made for attentional features, ponderal index, and salivary cortisol were not validated. Pedigree analysis showed an autosomal dominant pattern of genetic transmission in all the five pedigrees.

The findings are discussed in light of their implications. Naturalistic and personality findings can be tied together. People who leg-shake tend to be more neurotic than Non leg-shakers. Leg-shaking is an activity overflow. In conjunction with a proximal affective trigger like boredom, being alone, and an environmental constraint, people engage in self-stimulation thereby, automatically reinforcing the behavior. Severe leg-shakers may be able to bring hidden dysfunction to the foreground so that it can be worked through.