CHAPTER 6: CONCLUSION, LIMITATIONS, AND FUTURE IMPLICATIONS

6.1 Conclusion

This study attempted to study the phenomenology of leg-shaking. Naturalistic exploratory observations studied the percentage of leg-shakers in different environments. The study also tried to place leg-shaking stereotypy in the broader context of personality and personality pathology. Family pedigree analysis was used to find the inheritance patterns for this movement stereotypy. Salivary Cortisol analysis was carried out on leg-shakers and non leg-shakers.

Being the first of its kind, these data contain several important implications. First, leg-shaking should not be considered simple nervous habits. Clearly leg-shakers experience more anxiety and clinicians need to be aware of the management of leg-shaking which is not just habit reversal, but also a change of an affective state.

Severe leg-shaking may be able to bring a hidden dysfunction to the foreground so that it can be worked through. This distinct movement stereotypy of leg-shaking, which is seemingly purposeless could be a theoretical addition impacting the field of fundamental psychology.

It is worth speculating how naturalistic and personality findings may be tied together. Perhaps people who leg-shake tend to be slightly more anxious than non leg-shakers. However, even if this is true, it may be the case that, only in conjunction with a proximal affective
trigger like boredom, does a person show leg-shaking. Another possible explanation that is more consistent with the current data is based on the environmental restriction theory. According to this theory, participants engage in self-stimulation behaviour when bored or alone, as a result, the behaviour is automatically reinforced (Iwata, et al, 1982).

6.1.1 Naturalistic Observations

This study observed leg-shaking in a total group of 22,265 individuals. Observations were carried out in different situational settings. The groups observed were largely the sighted and the visually impaired individuals, though 29 first episode psychosis patients were also studied at the OPD in one setting. The visually impaired and the sighted were observed in three settings of classroom, examination and canteen, both genderwise and gradewise. For the sighted, ten other settings were also observed. An in-depth hourly analysis was done for the three-hour examination setting, only for the sighted.

Overall, the results of this study showed marked significant differences in the incidence of leg-shaking between the visually impaired and the sighted. Incidence of leg-shaking was significantly different for the sighted as well as the visually impaired in different settings such as classroom, examination and canteens. No major differences were found between males and females. Significant differences were observed in the hourly examination observations. The eleven settings observed were classroom, examination, canteen, church, library, parks, foyers, airports, train compartments and restaurants. The first episode
psychoses (FEP) patients showed very high incidence though the number observed was just 29 patients.

6.1.2 Personality

This study made predictions on certain personality traits and leg-shaking. Results reveal that the leg-shakers showed all the predicted personality traits at significant levels. With reference to Obsessions and Compulsions, data is compatible with prevalent views that motor stereotypies accompany OCD (Kruger, 2000). Attention features, like amount of information processing and sustained and divided attention were studied. However, these two attention variables did not stand validated.

6.1.3 Pedigree analysis

Pedigree studies are a foundation of human genetic research. The five pedigree studies were analyzed for type of inheritance pattern and penetrance. Analysis showed an autosomal dominant pattern of genetic transmission in all the five pedigrees. This study clearly negated X-linked modes of genetic transmission. The pattern of expression indicates that the genetic transmission of leg-shaking is not sex-linked.

6.1.4 Cortisol Study

The hypothesis linking basal Cortisol levels with leg-shaking has not been validated. Salivary samples studied did not show this hormone-behaviour link.
6.2 Limitations

1. The personality traits studied relied solely on self-reported questionnaire data. Thus a shared method variance potentially influenced the pattern of correlation examined. This research should have attempted to use alternate methods such as structured interviewing and behavioral observation to assess personality, obsessions and compulsions. However, this goal might have proved to be a challenging step in this line of work, as the best value assessed instrument available for assessing a broad array of OC symptoms are all in self report questionnaire form. (The exception is the Y-BOC symptoms checklist that uses the interview format).

2. Cortisol study showed no agreement with previous findings (Bakke, et al, 2004). This study needs to be replicated with a larger group of subjects.

3. The generality of these findings are limited to typically developing college students, thus demonstrating the need for additional research on a broader spectrum of the population.

6.3 Future Implications

1. Recent years have seen an increasing rapprochement and reconvergence between the two fields of personality and psychopathology. Both fields are studying many closely related common processes including social styles, cognition and individual differences in affectivity and coping mechanisms. The goal of this study enhances this reentry of normal range personality and abnormal
behavior. The results of this study have shown a link between leg-shaking as a stereotypy and several personality traits.

2. It is well documented that youth is a critical period for the emergence of prodromal signs of certain psychiatric disorders. Future studies could examine personality traits right from late childhood and early adolescence by using a longitudinal approach that can offer greater insights into personality development.

3. Research could also further examine the relationship between negative moods and leg shaking by using an experimental design to determine whether stress would result in the display in leg-shaking. Also, a design using response prevention and then measuring anxiety levels could examine the hypothesis that the behavior may function to reduce anxiety.

4. It must be understood that this study does not intend to use leg-shaking as a diagnostic marker. To fulfill this, more detailed studies on a cross section of age groups having psychopathology using prospective and retrospective methods are desirable. This study only attempted to draw a relationship between seemingly purposeless repetitive motor functions and psychological traits.

5. This study throws up a framework that could be used to study other motor stereotypies.

6. Future research would benefit from using diverse samples to explore findings that emerged in this study. It will also be able to generate issues for future research. Another possibility is to use qualitative research to replicate these findings.