An Investigation into the Presence of Seasonal Symptoms in a Sample Treated for Depression

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Abstract

The “winter blues” would appear to be a global concept. This thesis examined features of depression, seasonal change and meteorological data in relation to theories on the development of seasonal depression and Seasonal Affective Disorder (SAD). It reviewed the neurotransmitter based theories of causation where increased exposure to light is thought to stimulate normal neurotransmitter production. It also examined the dual vulnerability hypothesis (DVH) which postulated that vegetative symptoms arose from a different vulnerability than depressive symptoms. Levels of vegetative symptoms and depression were analysed in relation to the different climate experienced in Auckland, New Zealand. Three studies were undertaken. In the first study, the sample consisted of 195 individuals in New Zealand who self-referred to participate in a separate research project examining the effects of “homework” and cognitive behavioural therapy for first time depression. Meteorological data were investigated in order to explore any potential vulnerability to seasonal depression in this sample. Additionally, age and gender were explored in relation to season of presentation. The second study involved the subsample (n = 81) who were assessed for therapy and examined season and symptom profile in relation to when the person presented. The third study traced the progress through therapy of 28 adults who were selected from the second study for CBT. The Beck Depression Inventory (BDI-II) provided additional data to test the related hypotheses Rate of change in depression scores and symptom expression in relation to seasonality were analysed using multilevel modelling (MLM). Daily hours of bright sunlight was found to have an unusual relationship to temperature in New Zealand when compared with previous research. In this setting increased sunshine was associated with lower temperatures. Therefore, the variables were separated in order to ascertain whether one affected results more than others. Bright sunshine hours affected the expression of vegetative symptoms with a decrease observed over time in relation to increased photoperiod. Subtle relationships between temperature and vegetative symptoms were observed. However, there was an overall lack of correlation between vegetative and depressive symptoms observed in the CBT sample, and sunlight was not observed to have any effect on typical depressive symptoms. The investigation provided partial support for the neurotransmitter basis of vegetative symptoms and for the dual vulnerability hypothesis. Gender and age were correlated with vegetative symptom endorsement, although over time only gender was found to have any ongoing significance in the presentation of seasonal symptoms with women more likely to exhibit vegetative responses over time.

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