

LOMBARD RESEARCH PROJECT

Project Title

THE EFFECT OF SENSORY PROCESSING ON THE PERFORMANCE OF CALL CENTRE AGENTS IN THE SOUTH AFRICAN CONTEXT

Project Objective

- To expand the current knowledge and application base of sensory integration for occupational therapy into:
 - 1) adults
 - 2) sensory integration in the absence of pathology
 - 3) normal workplace settings
- To supply the call centre industry with the following:
 - 1) information on the prevalence of sensory overload in the call centre industry and its effect on performance
 - 2) establish a correlation between sensory processing and absenteeism and attrition

Literature Review

Sensory modulation, a sub-theory of sensory integration, has been an area of extensive research in the past decade. The focus of research has primarily been on children with sensory modulation dysfunction. However, the impact of this unique and important neurophysiological process has been underestimated and unexplored with adults, especially in a normal workplace setting where it is expected to impact on occupational performance. The research in the adult population with regards to sensory integration is limited, with some studies available in the field of adult psychiatry, specifically in populations with schizophrenia (Brown, Cromwell, Filion, Dunn & Tollefson, 2003). Sensory defensiveness was explored with a small group of adults with emphasis on identifying the defensive patterns and supplying the study participants with insight and knowledge (Kinnealy, Oliver & Wilbarger, 1995). Another study confirmed a significant correlation between sensory defensiveness and anxiety (Pfeiffer & Kinnealey, 2003). No studies with a sensory integration approach in a normal workplace setting were found locally or abroad.

During clinical practice the researcher became increasingly aware and interested in the sensory processing patterns of normal functioning adults. The decision to embark on research was taken due to the lack of research on sensory integration in normal functioning adults. A call centre environment

was selected due to the fact that it is known to be busy and stressful. Studies regarding stress and attrition were mostly done in the UK and India. However, the effect of sensory processing on performance within a call centre has never been investigated. This study will therefore introduce a new domain to substantiate performance within the call centre industry that has been overlooked and not explored thus far.

As part of the researcher's regular work, a group of 70 people, (aged between 18 and 63 with a median age of 36.44 years) completed the adult sensory profile (Brown & Dunn, 2002). Of this group, 29 were male, representing 41% of the group and 41 were female, representing 59% of the group. The score distribution of this group indicated similar cut score distributions than that of the standardisation sample of the Adult Sensory Profile of Brown and Dunn. Cluster distributions were formed based on this data and will be used for the sampling process of the proposed research. Apart from confirming the applicability, need and benefit of addressing sensory processing issues within the normal adult population, it also created an opportunity for the researcher to obtain valuable information from this data. Most clients reported valuable new insights regarding their sensory processing profiles, and how regarding their sensory processing profiles, and how these impact on daily life roles and performance, which further points to the need and potential value of research in this area.

Sensory processing refers to the way sensory stimuli from the environment are received, modulated and integrated, and individual's behavioural responses to sensory input (Lane, 2002).

Sensory processing is a neurological process that occurs on a daily basis for all individuals and affects function, behaviour and emotion.

The Adolescent Adult Sensory Profile (Brown & Dunn, 2002), is a standardized 60 item questionnaire that measures daily sensory processing patterns. This test scores individuals according to 4 quadrants: 1) Sensory sensitivity refers to individuals with heightened sensitivity and responses to environmental stimuli; 2) Sensation avoiding refers to individuals avoiding environmental stimuli because of sensitivity; 3) Low registration refers to individuals with reduced responses to environmental stimuli; and 4) Sensation seeking refers to individuals who seek out and enjoy environmental stimuli. The Sensory Profile is therefore a useful tool for self-awareness in that it identifies personal responses and behaviour to touch, movement, taste, smell, auditory and visual input from the environment.

Sensory overload and stress are factors relating to sensory processing and particularly evident in those individuals with sensory sensitive and sensation avoiding traits (Heller, 2002). The normal workplace environment is stressful and impacts on worker performance.

A call centre is a central place where businesses channel all service, telephone and multi-media communications through a number of trained agents. This approach has grown extensively abroad and locally as a preferred method for cost-saving business processes. A call centre is known to be a high impact, stress inducing and sensory overload environment, with a high turn over of staff (Bagnara, 2000).

The posed hypothesis is that persons with low registration will have an easier time managing their work in the call centres, and persons with sensation avoiding will have a significantly more difficult time managing the same work. Correlations will be drawn between level of performance and sensory processing of call centre agents.

Quantitative research methods will be applied to test the hypothesis and extend the knowledge base with regards to the impact of sensory processing on occupational performance in the call centre industry.

Deliverables - What are the expected outputs of this project? [Publications, new techniques]

- New application field for SI in the adult population
- Relationships evidence proven for SI sensitivity and stress related issues
- Expand sensory integration into normal work environments
- Publications in all prominent journals in occupational therapy as well as in the call centre industry are planned