An Investigation into the Psychological Factors Related to Occupational Overuse Syndrome.

A thesis presented in partial fulfilment of the requirements for the degree of Master of Arts in Psychology, at Massey University.

Jon Dannatt

1993
ABSTRACT

The present study investigated the psychological factors that relate to Occupational Overuse Syndrome (OOS). The specific focus of this study was the work related behaviours associated with OOS. OOS is a condition in which sufferers experience pain in the neck, shoulders and/or upper limbs, and is often work related. Previous research in this area has found a relationship between OOS symptoms and work related behaviours encompassed by the Type A Behaviour Pattern. The current study was designed to increase knowledge in this area.

A total of 575 respondents completed a questionnaire designed to measure OOS, Type A Behaviour, and Quality of Working Life. Correlations between the main variables of OOS and Type A Behaviours found a consistent relationship between the syndrome variables and the Speed and Impatience behaviour sub scale. Strong intercorrelations were also found within the OOS variables and the Type A variables. One way analysis of variances determined that there were a range of confounds between main and demographic variables. To control for the effects of the confounds multiple regression analysis was used. The percentage of OOS explained by the Type A variables was small but significant.

The implications of the above relationships were discussed. The Speed and Impatience behaviour type can be seen as a positive employee characteristic and therefore should be further investigated in order to control for its maladaptive aspects.
ACKNOWLEDGMENTS

I would like to express gratitude to my supervisor, Dr. Mike Smith, for his guidance and encouragement in the preparation of this thesis. Thanks also to Mr Kerry Chamberlain for his assistance with the data analysis.

Many thanks to the other members of the research team Bert, Ross, Christine, Frank Darby from Occupational Safety and Health Services, Department of Health, Jenny Beek, Penny Harding, Corinne Ambler and David Patton from Independent Newspapers Limited, for their assistance.

Thanks also to the various academic and office staff in the Psychology Department, who in numerous ways have helped in my endeavours.

I would also like to express appreciation to my family and friends for their encouragement and support.
TABLE OF CONTENTS

Chapter .............................................  Page

Abstract ............................................. i
Acknowledgements ..................................... ii
Table of Contents ................................... iii
List of Tables ....................................... v

1  INTRODUCTION ..................................... 1

Occupational Overuse Syndrome .................. 1
Psychological Aspects of OOS ..................... 2
Typical OOS Sufferer’s Profile .................... 7

2  THE TYPE A BEHAVIOUR PATTERN ............. 9

Psychological Foundations of Type A ............. 11
Alternative Views to Type A behaviour .......... 11

3  THE RELATIONSHIP BETWEEN THE TYPE A
BEHAVIOUR PATTERN AND THE
OCCUPATIONAL OVERUSE SYNDROME .......... 14

Type A and Physiological Reactivity ............. 13
Type A behaviour and physical stress/strain .... 15
Nature of the Relationship Between Type A Behaviour
and Coronary Heart Disease (CHD) .............. 16
Type A behaviour and the Reporting Pattern of Stress
and Strain ............................................ 17
Suppression of Symptom Reporting - Theory One

Type 'As' Positive Relationship with Symptom Reporting

Explanation of Symptom reporting Hypothesis

Conclusion of Chapter Three

4 MEASUREMENT OF THE TYPE A BEHAVIOUR PATTERN

Type A Measurements

The Structures Interview

The Jenkins Activity Survey

JAS Sub-scales

JAS Hard-Driving and Competitive scale

JAS Job Involvement scale

JAS Speed and Impatience scale

Potential Mediators of the Type A Behaviour Pattern - Chronic Heart Disease Relationship

Sex

Age

Socio-economic Status and Education

Employment Status

Comment : Self-Report Approaches to Type A Assessment

Divergence in research findings

New Directions in Type A research

Conclusions of Chapter Four

5 RESEARCH HYPOTHESIS AND METHOD

The Current Research

Current Research Hypothesis
Method ............................................................... 36
Subjects ................................................................... 36
Procedure ................................................................... 36
Occupational Overuse Syndrome Questionnaire ............... 37
The Questionnaire : Section One .................................. 37
OOS Measure ............................................................. 37
The Questionnaire : Section Two ................................... 37

6 RESULTS ................................................................. 39

Data Analysis Procedures .............................................. 39
Correlations Between OOS and Type A ........................... 39
OOS Intercorrelations ................................................. 41
Type A Intercorrelations .............................................. 41
Analysis of Variance for Sex and Age ............................. 43
Analysis of Variance for Type of Work ............................ 46
Analysis of Variance for Paper Location ......................... 46
Hierarchical Regression Analysis .................................... 48

7 DISCUSSION ............................................................ 50

Research Hypothesis .................................................... 50
Explanation of Analysis of Variance Results ...................... 53
  Sex ........................................................................ 54
  Age ........................................................................ 54
  Type of Work .......................................................... 55
  Paper Location .......................................................... 56
Explanation of Correlational Results ................................. 57
  OOS ....................................................................... 57
  Type A ..................................................................... 58
Summary and Conclusions ............................................... 59
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>41</td>
</tr>
<tr>
<td>3</td>
<td>42</td>
</tr>
<tr>
<td>4</td>
<td>44</td>
</tr>
<tr>
<td>5</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>47</td>
</tr>
<tr>
<td>7</td>
<td>49</td>
</tr>
</tbody>
</table>

- **Table 1**: Correlation Matrix for OOS by Type A Variables
- **Table 2**: Correlation Matrix for OOS Variables
- **Table 3**: Correlation Matrix for Type A Variables
- **Table 4**: Means and F Ratios between Sex and Age and Main Effect Variables
- **Table 5**: Means and F Ratios between Type of Work and Main Variables
- **Table 6**: Means and F Ratios between Location of Paper and Main Variables
- **Table 7**: Hierarchical Multiple Regression