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**The Independent Newspapers Limited  
Study: An Investigation into  
Occupational Overuse Syndrome  
Within the Newspaper Industry.**

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

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1993

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Dedicated to my father  
John George Pirie.

## ABSTRACT

An investigation was undertaken into occupational overuse injuries. Overuse injuries are commonly associated with repetitive movements, sustained or constrained postures, and forceful movements. Other factors, such as work environment, amount of keyboard use, and the ergonomic status of the work area, have been identified as elements in the development of overuse injuries. These perspectives were used to provide research objectives in studying a sample of subjects working in the newspaper industry.

Five hundred and seventy five respondents completed a questionnaire, which included a measure of the incidence and severity of overuse injuries, and questions aimed at discovering the effectiveness of different types of treatment and intervention strategies. Using a combination of descriptive and bivariate statistics, this data was analyzed.

The analysis revealed low levels of reported muscular aches and pains. Of those subjects who did report some form of ache or pain, the majority answered that the level of their aches and pains had remained the same. As well, the image of the aetiology of overuse injuries which emerged, was in contradiction to much of the proceeding research in this area. The analysis also demonstrated that the treatment and intervention strategies being employed were ineffective. This was despite the fact that subjects often reported that they considered a particular strategy to be productive in managing their overuse injury.

In the discussion section, the limitations of the questionnaire as a survey technique in this area of research was considered, and the possible effects these limitations have on the present study. This point has special relevance to the application of clinical models of overuse injury.

It was concluded that the results demonstrated a need for research into effectively manipulating working conditions to counter-act the development, incidence and severity of overuse injuries. Such strategies as job enlargement and job rotation were suggested.

## ACKNOWLEDGMENTS

I would like to express my deepest appreciation to my supervisor, Dr. Mike Smith, for his guidance and encouragement in the preparation of this thesis. I remain especially grateful for his willingness to fit me into a busy schedule, and the high standard of the feedback he gave me under his supervision.

I would also like to express my gratitude to the other members of the research team Bert, Jon 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 aid and assistance.

I must extend my thanks to the various academic and office staff in the Psychology Department, who in numerous ways have helped me throughout my two years of study.

I would also wish to express my gratitude to my mother, my brother and sister, and my friends for their continuous interest, support and encouragement.

Finally, I would like to especially thank my fiance Kiyō for putting up with me when I was 'unbearable', and for always being there when I needed her.

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## GLOSSARY

**Anthropometry:** the physical measurement of human beings both static and dynamic.

**Biomechanics:** the forces acting on the human musculoskeletal system through the combined effect of muscle action and gravity.

**Bursitis:** Bursae form over all areas where projecting parts of the body are in frictional contact with their surroundings, for example, the bunion. Bursitis at these sites leads to inflammation and swelling.

**Carpal Tunnel Syndrome (CTS):** a nerve entrapment syndrome, where pressure on the median nerve in the front of the wrists results in recurrent pain in the palm and on the volar aspect of the wrists, with a corresponding weakness of the wrists and weakness of grip.

**Epocondylitis:** pulling or tearing of the tendinous insertion on the outside of the elbow. It is here that wrist extensor muscles attach to the bone and it may be a point of weakness when strong or rapid extensions of the wrist are required.

**Ganglia:** usually from the tendon sheaths around the wrist. They should often be taken as a indication of overuse, and usually signify tenosynovitis by may also occur in rheumatoid arthritis.

**Reflex Sympathetic Dystrophy (RSD):** this is a rare form of OOS, and can be seen as an extreme extension of Raynauds disease. RSD presents itself typically as an intense burning sensation and swelling.

**Rotor Cuff Injuries (RCI):** characterized by a painful arc when the arm is raised. Is typically caused while reaching up above the head to carry out a job, or lifting with the arm abducted.

**Tendonitis:** inflammation of a tendon, may occur when a tendon has been repeatedly used.

**Tenosynovitis:** inflammation of a tendon within a sheath, leading to pain, restriction of movement and sometimes a loss of ability to apply force. It occurs most commonly on the back of the wrist and on the radial side of the wrist, as in the thumb tendons.

**Peritendinitis:** inflammation of the muscle-tendon junction above the sheath, commonly occurring on the back of the forearm.