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Rehabilitation for workers with noise-induced hearing loss: a community health approach

Anthony G. Hogan
University of Wollongong

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Prof C. Ewan
Dean
Department of Public Health & Nutrition
University of Wollongong
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Dear Prof. Ewan,

Re: Thesis entitled *Rehabilitation for workers with noise-induced hearing loss- a community health approach*

Declaration

This thesis is submitted to the Department of Public Health and Nutrition, University of Wollongong, in fulfilment of the requirements for the Honours Degree of Master of Science. It does not incorporate any material previously published or written by another person except where due reference is made in the text. The work described in this thesis is original work and had not been previously submitted for a degree or diploma in any university.

E.G. ~~Anthony~~ Hogan

May 22nd, 1992

**Rehabilitation for workers with Noise-Induced Hearing Loss -
A Community Health Approach**

**A thesis submitted in fulfilment of the requirements for the
award of the degree**

Master of Science (Honours)

University of Wollongong

by

E.G. Anthony Hogan, B.A. (Welfare Studies)

**Department of Public Health &
Nutrition**

1992

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Abstract

This study examines the feasibility of a community health worker offering a programme of rehabilitation for workers with noise-induced hearing loss in Australia. The programme was developed by Louise Getty and Raymond Hetu from the Acoustics Group, University of Montreal, Quebec Canada. Legal and psychological issues surrounding noise induced hearing loss are discussed. The Getty and Hetu process for rehabilitation is reviewed in the light of the community development in health literature. Barriers to the rehabilitation process such as workers' reluctance to acknowledge hearing difficulties or to understand the effects of hearing loss are discussed.

It is found that with minor cultural adaptations that it is feasible to use this programme in Australia. Upon completion of the process, workers were more able to acknowledge their hearing problems and took appropriate steps to improve their hearing and listening skills. However, following their participation in the programme, workers rated their hearing problems as being more serious. The feasibility of offering the Getty and Hetu process within the existing community health infrastructure is discussed and a collaborative intervention for the systematic provision of rehabilitation services for workers with noise induced hearing loss, involving health workers from a variety of professional backgrounds is presented.

Publications arising from this thesis

- Hogan, A. **Industrial Deafness - Issues Concerning the Rehabilitation of Noise Injured Workers.** Fairfield Community Resource Centre. Fairfield 1990
- Hogan, A. **Rehabilitation for workers suffering Noise Induced Hearing Loss** Australian & New Zealand Journal of Occupational Health & Safety 1991; 7(1):35-42
- Hogan, A. **Workers with Noise Induced Hearing Loss** Australian & New Zealand Journal of Occupational Health & Safety 1992; 8(2) - In press
- Hogan, A. **Rehabilitation for workers with Noise-Induced Hearing Loss** Conference Proceedings, Australian Society of Rehabilitation Counsellors - Annual Conference. Sydney; 1992
- Hogan, A; Munnerley, G;
- Framework for Managing Noise Induced Hearing Loss** Occupational Health Magazine; No 48, March 1992
- Hogan, A; Ewan, C; Noble, W; Munnerley, G;
- Coping with Occupational Hearing Loss: The University of Montreal Acoustics Group Rehabilitation Program: An evaluation study** In prep.

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The opportunity is taken to thank Dr Christine Ewan and Dr. William Noble for their support as supervisors of this project and Mr Glenn Munnerley for assisting me run the rehabilitation groups associated with this project. A special thanks goes to my wife Karen, for all her support and understanding throughout this project.

Thanks also to Mr Colin Slack (Metals and Engineering Workers Union) and Mr Martin Byrne (Institute of Marine and Power Engineers) for their help in recruiting workers for this project. And most of all, thanks goes to the workers and spouses who gave their time to participate in this project, in the sharing of their experiences and for teaching me so much about what it is like to live with a noise-induced hearing loss.

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A Guide to Reading this Thesis

This thesis is concerned with a community-based approach for providing rehabilitation to workers with noise-induced hearing loss. The first chapter of the thesis addresses noise-induced hearing loss in the Australian community with regard to what causes such a hearing loss and identifies which groups of workers are most at risk. The discussion then proceeds to review the legislative frameworks for rehabilitation, compensation and prevention in Australian. Finally, the discussion focuses on the impact noise-induced hearing loss has on the lives of the injured worker and their family.

In Chapter 2, a Canadian community-based model for providing rehabilitation for workers with noise-induced hearing loss, developed by Louise Getty and Raymond Hetu from the University of Montreal, is reviewed in the light of the current literature. It is concluded that the model provides a wholistic approach to aural rehabilitation. Based on this conclusion, the central concern of this study emerges:

"Is it feasible for a community health worker in Australia to reproduce Getty and Hetu's Model of rehabilitation for workers with noise-induced hearing loss and to achieve the same or similar results?"

Chapter 3 outlines methodological issues arising from the study while Chapter 4 gives a detailed description and evaluation of the rehabilitation process as it occurred.

In conclusion, Chapter 5 addresses the implications and broader applications of the programme with particular emphasis being given to injury prevention.

Format

To assist the reader, the document is formatted with major emphasis being given to each new section of a chapter. A new section or topic is presented with a section number (for example **1.2**) and a title such as **Hearing Loss in the Community**. The title and the section number are presented in bold and underlined. Thus the section addressing hearing loss in the community is presented as:

1.2 Hearing Loss in the Community

Sub-sections within a chapter (for example, the discussion on the nature of **Hearing** within the section on **Hearing Loss in the Community**) are simply presented in bold at the beginning of a new paragraph. Bold lettering is also used to give emphasis to a major conclusion or question as it arises within a chapter. As such, the central concern of this study as noted above is presented in bold. Occasionally the need arose to give particular emphasis to a word or a phrase that was not a major conclusion. In such cases *italics* are used to give the emphasis required.

Throughout this study, frequent reference is made to two papers, one written by Louise Getty and Raymond Hetu and the other by Raymond Hetu and Louise Getty. The reference to Getty and Hetu (1991) refers to the paper:

Getty, L; Hetu, R; Coping with Occupational Hearing Loss: The University of Montreal Acoustics Group Rehabilitation Programme in **Occupational Noise-induced Hearing Loss Prevention and Rehabilitation**. University of New England, Armidale, 1991.

while the paper referred to as Hetu and Getty (1991) refers to:

Hetu, R; Getty L; The Nature of the Handicaps Associated with Occupational Hearing Loss: Implications for Prevention in **Occupational Noise-induced Hearing Loss. Prevention and Rehabilitation** University of New England, Armidale, 1991.