

Exploring the Psychological Impact of Hand-Arm Vibration Syndrome (HAVS)

Sophie Bezanson, Arlinda Ruco, Melissa Howse, Diandra Budd, Ron House, Mahasti Khakpour, D.Linn Holness

The Issue:

- HAVS is a common occupational disease associated with exposure to hand transmitted vibration.
- HAVS is common in mining, construction, forestry and manufacturing.
- Little is known about its psychological impact.

Study Objective:

The objective of this study was to explore the psychological impact of HAVS among a cross section of workers being assessed at the Occupational Medicine Clinic at St Michael's Hospital.

Methods:

- Study was approved by the REB.
- Participants completed a questionnaire that included validated health surveys and screening tools.
- Information collected included demographics, workplace characteristics and screening for anxiety and depression.
- Basic descriptive statistics and multivariate models were used to explore associations between anxiety and depression and clinical variables related to HAVS physical impairment.

Contact:

Dr. Linn Holness, Director, CREOD
HolnessL@smh.ca

Results:

- There were 94 participants, all male with a mean age of 48.2.
- The majority worked in mining (62%) and construction (32%).
- Older participants had a lower right hand grip strength and higher QuickDASH score indicating a greater level and severity of disability.
- Workers in construction and mining reported similar psychological outcomes and work characteristics except for a greater proportion of workers in construction working outdoor (83%) in comparison to mining (29%).
- 27% reported feeling depressed.
- 35% reported showing little interest in or pleasure doing things.
- Clinically significant anxiety symptoms were detected in 28% of participants.
- The multivariable modelling showed the QuickDASH score was the only significant predictor of psychological health outcomes.

Conclusions:

- Workers with HAVS have poorer mental health and physical functioning scores in comparison to the general population.
- These mental health outcomes should be considered in both the diagnostic process to ensure they are recognized and in the management phase to ensure they are addressed.