

UNIVERSITI TEKNOLOGI MARA

**HEARING PPE USAGE AND BLOOD
PRESSURE LEVEL AMONG GRASS
CUTTING WORKERS OF ALAM
FLORA SDN BHD, PUTRAJAYA**

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ABSTRACT

Introduction

Grass cutting activities is regularly carried out as one way to maintain the aesthetic of towns or cities. Workers carrying out the grass cutting are exposed to noise produced from the machines and from the contact of blades with grass. This continuous exposure of workers to the noise of grass cutting put them at risk of developing noise-related health effects. However, it is still arguable whether noise has any effect on BP.

Hearing PPE was designed mainly to prevent hearing impairment due to exposure to noise. Through proper usage of hearing PPE, it can be assumed that workers will have lesser noise exposure. In the present days, there is still lack of studies that provide evidence on the association between noise exposure and human BP level.

Therefore, this study was conducted in order to investigate the differences in SBP and DBP among grass cutters of Alam Flora Sdn. Bhd, Putrajaya. The specific objectives of this study were to measure the participants' SBD and DBP before and after grass cutting operation, to compare the participants' SBP and DBP between before and after working hours and to compare SBP and DBP level between participants using and without hearing PPE before and after grass cutting operation

Methods

A questionnaire was used to identify the usage of hearing PPE among grass cutters as well as the type of hearing PPE BP measurement was carried out according to the guidelines provided by the European Society of Cardiology (2007). For Objective 1, mean value and standard deviation of SBP and DBP was measured for both before and after grass cutting operation and recorded in term of mean value and standard deviation. For Objective 2 and Objective 3, normality tests and inferential tests was implemented to test the hypotheses.

CHAPTER 1

INTRODUCTION

1.1 Background

Sound is produced through the vibration of media whether it is air, solid or liquid. Some sounds are intentionally produced to serve its purpose such as alarm and other indicator sound. Wanted sound also includes honk and buzzer. However, there is also sounds that exist in occupational setting that is unwanted. An unwanted sound is termed as noise (Murphy & Eoin, 2014). Numerous studies have reported the effects of occupational noise on an auditory and non-auditory health effect (Azadboni et al., 2018; Basner et al., 2014; Otoghile et al., 2018). Noise is an important occupational hazard that may exist at workplace and is the most common occupational hazard which are responsible in causing noise induced hearing loss and other hearing impairment (Concha-Barrientos et al., 2004).

The grass cutting activities is an example of occupation in which the workers are exposed to noise. Workers carrying out the grass cutting are exposed to noise produced from the machines and from the contact of blades with grass. Many studies have reported the association between noise exposure with the degradation of auditory function.

Meanwhile, BP refers to the pressure exerted on the walls of blood vessels due to pumping of blood by the heart. It is normally expressed based on systolic blood pressure (SBP) and diastolic blood pressure (DBP). In which SBP refers to the maximum pressure during one heartbeat while DBP refer to the minimum in between two heartbeat. The unit of measurement is millimetres of mercury (mmHg).

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