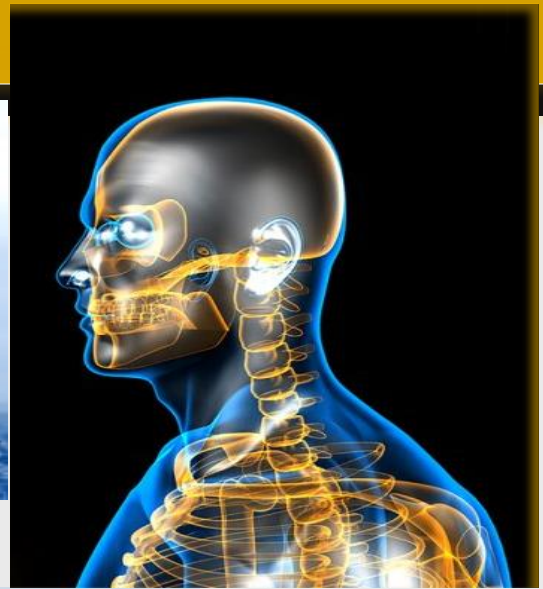


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OCCUPATIONAL AND PSYCHOSOCIAL RISK FACTORS AS PREDICTORS FOR SHOULDER PAIN AMONG ELECTRICITY LINEMEN- A CROSS SECTIONAL STUDY

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INTRODUCTION

INTRODUCTION

LINE MAN

PROBLEM IDENTIFIED

IMPLICATION

WHO IS LINEMAN..?

INTRODUCTION

LINE MAN

PROBLEM IDENTIFIED

IMPLICATION



INTRODUCTION

LINE MAN

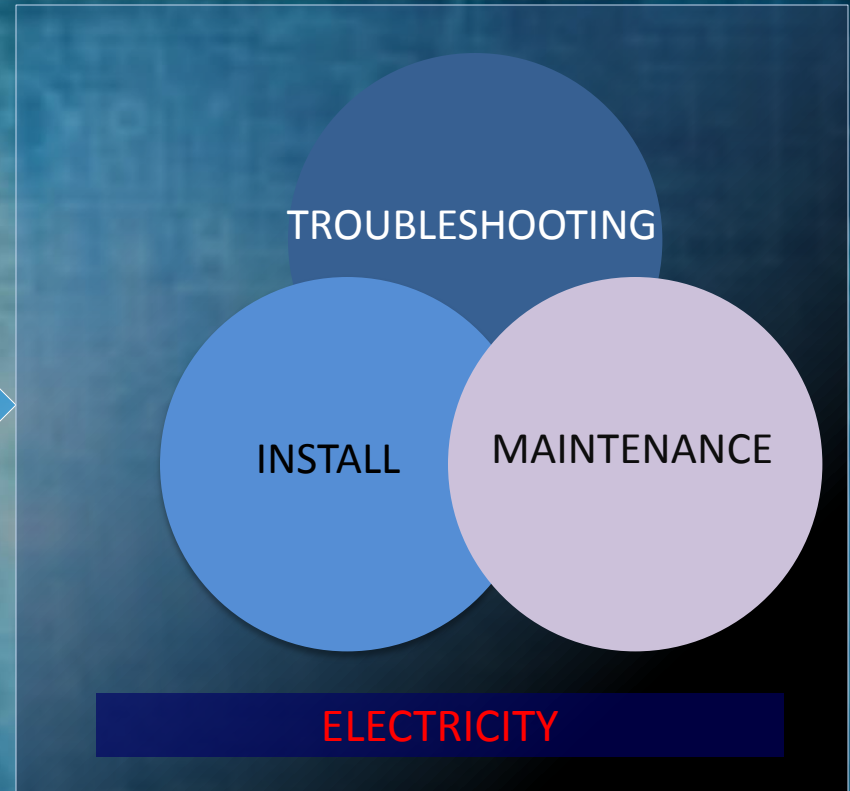
PROBLEM IDENTIFIED

IMPLICATION



LINEMAN

WORK RESPONSIBILITIES



PEOPLE WHO WORKS WITH ELECTRICITY IN DIFFERENT PHASES. (Burton at al. 2010)

INTRODUCTION

- The ... ble cutting ... nement



Fig 1a : ... g Task is a pr ... he de energized ... Manual Cutter

- The ... eased ... e exertio ... task



INTRODUCTION

LINE MAN

PROBLEM IDENTIFIED

IMPLICATION



UTILITY MEDICAL COMPENSATION

Type Of Injury	Total Medical Cost (US \$)	Annualized (US \$)	Annualized per employee (US \$)
Upper Extreme Injuries	179, 296	71, 718	194
Neck Injuries	160, 573	64, 229	174
Knee Injuries	46, 307	18, 522	
Back Injuries	92, 429	36, 971	99
Total	478, 605	191, 440	517

(Marklin et al . 2003).

SUPPORTING THEORIES

- Nevertheless, an extensive knowledge is lacking to support the relationship between occupational and psychosocial risk factors on the development of shoulder pain among the linemen population

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- The objective of the current study was to determine the relationship between occupational and psychosocial risk factors on the development of shoulder pain among electricity linemen working in Malaysia

METHODOLOGY

STUDY DESIGN

CROSS SECTIONAL DESIGN

SAMPLING METHOD

CONVINIENT SAMPLING METHOD

STUDY POPULATION

88 ELECTRICITY LINEMEN

POPULATION RECRUIMENT

PRIVATE COMPANY

METHODOLOGY

INCLUSION CRITERIA

Lineman who has more than 1 year experience will be included



EXCLUSION CRITERIA

- Individual who had working experience less than year
- An individual who had undergone surgery less than 1 month period.
- An individual who had undergone traumatic conditions that need hospitalisation.
- An individual who had neuromuscular problems that requires hospitalisation.
- Individual who had recently had lost their loved ones.

METHODOLOGY

PSYCHOSOCIAL RISK FACTORS

- MALAY VERSION JOB CONTENT QUESTIONNAIRE (M-JCQ)
- SELF ADMINISTERED QUESTIONNAIRE
- MEASURES THREE DOMAINS
 - ❖ DECISION LATITUDE
 - ❖ JOB DEMAND
 - ❖ WORK RELATED SUPPORT
- HAVING EXCELLENT VALIDITY & RELIABILITY

PHYSICAL RISK FACTORS

- QUICK EXPOSURE CHECKLIST (QEC)
- MEASURES FOUR DIFFERENT OCCUPATIONAL RISK FACTORS
 - ❖ WORK PACE
 - ❖ POSTURE
 - ❖ VIBRATION
 - ❖ DRIVING
- OBSERVATIONAL METHOD & VIDEO RECORDING

RESULTS

Table 1: Sociodemographic Details of Electricity Linemen Population

Variables	Percentages
Age	
20-30	47.7%
30-40	29.5%
>40	22.7%
Gender	
Male	100%
Female	0
Marital Status	
Single	31.8 %
Married	68.2 %
Divorce	0
History of Smoking	
Yes	52.3%
No	47.7%

**68.2 % OF THE LINEMEN ARE HAVING
SHOULDER PAIN**

RESULTS

Table 2: The Association between Occupational and Psychosocial Risk Factors On the Development of Shoulder Pain Among Linemen

OCCUPATIONAL & PSYCHOSOCIAL RISK FACTORS	ODDS RATIO [EXP (B)]	B	95% CI
❖ Work Pace	2.87	0.060	1.17 – 4.33
Posture	0.98	-0.015	0.80 – 1.54
❖ Vibration	4.26	1.021	1.85 – 6.12
Driving	0.96	-0.036	0.65 – 1.12
❖ Decision Latitude	1.50	0.048	0.97 – 2.11
Psychological Job Demand	0.75	1.350	0.143 – 1.01
Work Related Support	1.12	0.657	1.001 – 2.76

MULTIPLE LOGISTIC REGRESSION ANALYSIS

DISCUSSION

- **Development of shoulder pain among linemen seems to be strongly associated with risk factors such as vibration, work pace and decision latitude due to their working job task.**
- **The current findings proves the co existing theories on the association between occupational and psychosocial risk factors on the development of the shoulder pain among linemen profession.**
- **Excessive vibration exposure increases the severity of developing shoulder pain in the present study among linemen population might be due to the use of the manual cutter (Buckle 1997).An excessive vibration frequency due to the tool usage might transmit the vibration from hand to shoulder which eventually will causes shoulder pain and shoulder discomfort among workers(Buckle 1997)**
- **The current study also identified decision latitude as risk factor for the development of shoulder pain among linemen. The increase in the psychosocial risk factors might change the pain perception which might result in the development of pain in shoulder region (Larsman, & Hanse 2009)**

CONCLUSION

- Overall, the current study identified a number of risk factors such as occupational and psychosocial that were associated with the development of shoulder pain among linemen profession.
- Hence, future intervention program for the prevention of shoulder pain among the linemen profession need to consider the following risk factors such as occupational and psychosocial risk factors.

THANK YOU
