STUDY OF OCCUPATIONAL HEALTH ISSUES: FACED BY BUS DRIVERS

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Abstract: Health has always been closely linked with occupation. The working conditions of bus drivers have remained virtually unchanged for over a century in Kolhapur. They exposed to certain health problems by virtue of their occupation. The present study is undertaken about occupational health related problems of bus drivers. The objectives of this cross sectional study to assess the effect of work environment on driving condition using structured interview, structured questionnaires. The most common health symptoms experienced by the bus drivers were fatigue, back pain, and cough and colds. This study underlines the need for an occupational health and safety program for bus drivers in the Kolhapur city.

Index Terms - Occupational health and safety, Bus drivers, Diseases, Ergonomics

I. INTRODUCTION

Occupational health is a multidisciplinary field concerned with the safety, health, and welfare of people at work. The goals of occupational safety and health programs include fostering a safe and healthy work environment. As defined by the World Health Organization (WHO) "occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards." Health has always been closely linked with occupation. The working conditions of bus drivers have remained virtually unchanged for over a century in Kolhapur. They exposed to certain health problems by virtue of their occupation. The present study is undertaken about occupational health related problems of bus drivers. The objectives of this cross sectional study to assess the effect of work environment on driving condition using structured interview, structured questionnaires. The most common health symptoms experienced by the bus drivers were fatigue, back pain, and cough and colds. This study underlines the need for an occupational health and safety program for bus drivers in the Kolhapur city.

II. RESEARCH METHODOLOGY

A total of 150 respondents (All are male respondents), were randomly selected for the study of effects of work environment on municipal transportation. The present study mainly based on primary data. Primary data are collecting from the bus drivers by
taking interviews, structured questionnaires. It examines health problems on a five-point scale in the areas back, neck, shoulder, hand/arm and feet/leg/thigh. Also, it studies the systemic problems with the following: Respiratory system, cardio-vascular system, central nervous system, gastro-intestinal system, eyes, ears, nose and throat (ENT).

2.1 Data Analysis

The study is based on the primary findings. Collected data was analyzed by using Microsoft excel. All this information has been translated into the form of frequency distribution tables.

III. RESULTS AND DISCUSSION

This is also an important aspect of the study as a part of their working condition demands long hours of stay away from home; food and rest are required for health. Therefore, their food as well as other habits (pan masala, smoking, tobacco consumption) and their hours for rest after their working hours were also studied.

<table>
<thead>
<tr>
<th>Health Problems</th>
<th>Suffering (%)</th>
</tr>
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<tbody>
<tr>
<td>Aggression</td>
<td>51</td>
</tr>
<tr>
<td>Arthritis</td>
<td>17</td>
</tr>
<tr>
<td>Fatigue</td>
<td>56</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>14</td>
</tr>
<tr>
<td>Hearing loss</td>
<td>23</td>
</tr>
<tr>
<td>Appetite</td>
<td>20</td>
</tr>
<tr>
<td>Anxiety</td>
<td>19</td>
</tr>
<tr>
<td>Headache</td>
<td>34</td>
</tr>
<tr>
<td>Back pain</td>
<td>72</td>
</tr>
<tr>
<td>Pain in Hands</td>
<td>63</td>
</tr>
<tr>
<td>Pain in lower limbs</td>
<td>89</td>
</tr>
<tr>
<td>Sleeping problem</td>
<td>78</td>
</tr>
</tbody>
</table>

Table 1: Health Problems and Sufferings

Graph 1: Aggression among respondents

Graph 2: Arthritis among respondents

Graph 3: Fatigue among respondents

Graph 4: Eye Irritation among respondents
Graph 5: Hearing Loss Irritation among respondents

Hearing Loss

Yes 23%
No 77%

Graph 6: Appetite among respondents

Appetite

Yes 20%
No 80%

Graph 7: Anxiety among respondents

Anxiety

Yes 19%
No 81%

Graph 8: Headache among respondents

Headache

Yes 34%
No 66%

Graph 9: Back Pain among respondents

Back Pain

Yes 72%
No 28%

Graph 10: Pain in Hand among respondents

Pain in hands

No 37%
Yes 63%
Above graphical representation shows the variations between passed histories of illnesses. There are 2% people have Blood Pressure while about 1% people have Piles that indicates the physical internal problem. 3% people have high Sugar problem.
Very less nearby 1% people have Sugar as well as Blood Pressure. Remaining 93% people don’t have any kind of physical problem.

According to only 5% respondents, the conditions of roads are best while an about 10% respondent implies roads are in better condition. Nearby 7% respondents said the roads are in good condition. 15% respondents replies the roads are in worst conditions. Maximum (63%) respondents said the roads are very bad for travelling.

3.1 Another Health Problems among the Respondents:
In the view of Mc Kernon, work-related health problems for bus drivers are typically stress-related psychological disorders and associated physical symptoms (especially elevated blood pressure), musculoskeletal problems, cardiovascular disease, stomach and related gastrointestinal problems, and chronic fatigue or burnout.

The main causes are psychosocial stressors. In particular, low control is inherent to the bus driver task, where goal achievement (e.g. arriving on time) is threatened by both competing demands and unpredictable events in the road environment. Physical stressors sleep pressure and work-home conflict also play a major part in health outcomes for the bus driver. Psychosocial, physical and sleep stressors are often present simultaneously, having confounding affects on health outcomes.

The results presented here support further investigation of the need to account for health as a potential factor in safety performance, as a precursor to longitudinal studies into the effects of work stressors on health, sleep, and safety behavior. Fatigue, stress and health have mostly been considered as separate factors in relation to both driver health and driver safety, despite the fact that these factors are strongly and dynamically interactive. Likewise, while psychosocial pressures are often cited in relation to health outcomes, sleep undoubtedly plays a role in the effects of these stressors.

It is important to prevent acute fatigue with the benefits of alert driving. It can be achieved thought communications campaigns to educate drivers, build social norms and billboards/signs to remind drivers to stay alert and proactively manage fatigue.

The drivers faced main problems on/ due to:

1) On Traffic Signals:
In Kolhapur there are 22 functional signals and 30 one-way routes in city, the majority of Kolhapur’s main roads seem to be witnessing heavy traffic jams in the rush hours, making it difficult for commuters to reach their destination on time. The intensity of traffic jams increases on Mondays, with a maximum number of commuters out on the roads on the first day of the week.
Commuters and traffic policemen deployed on the roads say that the traffic jams are not just due to the heavy rush and narrow city roads, but also due to haphazard parking and people flouting traffic rules.
Traffic signals are especially common at Tararani Chowk, Dabholkar Corner Chowk, Dassara Chowk and Uma Talkies Chowk. Station Road starting from Tararani Chowk to CPR Chowk and Bhausinghji Road from Bhawani Mandap to CPR Chowk are two main arterial roads in the city that witness heavy traffic jams during the rush hour.
Bhausingji road too, always remains crowded, with parking on both sides of the road resulting in a considerable reduction of the road width. Besides auto-rickshaw stops, haphazard parking of motorcycles and four-wheelers are a major problem on this stretch, resulting in traffic congestion.

2) Bad Road Condition:
A road is a thoroughfare, route, or way on land between two places that has been paved or otherwise improved to allow travel by foot or some form of conveyance, including a motor vehicle, cart, bicycle etc.

While driver errors such as speeding and distracted driving are among the leading causes of automobile accidents in Kolhapur, dangerous road conditions are also a significant contributor. Dangerous road conditions may be the result of natural events, such as tropical rains and flooding, that make driving unsafe.
IV. CONCLUSIONS

By considering above results, present study come to the end with following conclusions with respect to occupational health issues faced by bus drivers.

The present study based on perception of the health problems as encountered by the respondents (drivers) and medical inference may be needed. But however, that the problems suffered by the bus drivers may be attributed to the nature of work they are exposed to and the associated life-style which is an outcome of their occupation.

Research supports a number of actions to reduce work hazards, which include reduction of traffic congestion, reduction of fatigue and interference with personal life (improving work schedules) improving ergonomic design of buses (seat design, steering wheel design, etc.) and a little more comfortable space for movement for the conductors inside the bus.

1. Occupational stress has an aversive affect on individuals and organizations. Stress leads to physical and mental ill-health.
2. Bus driving is a classic example of high-strain occupation.
3. Stress in bus drivers leads to absenteeism, substance abuse, decreased productivity, and increased accident rates. Stress detection will help in taking measures for stress reduction.

4. As per the graph 1 to 12 we are conclude that, Our study provides empirical evidence on key questions in the debates around whether or not such schemes are worth investment, and their effects on outcomes such as active travel, injury rates, social inclusion and sustainability.

5. The qualitative data suggested a number of benefits from increased access to transport for young people, including increased ability to be independently mobile, increased control over their travel, and fostering.

These are difficult to quantify, but confidence, independence and a sense of belonging make an important contribution to young people’s well-being.

REFERENCES