

3.4 Health and Safety in Malta

– A snapshot as informed by the Long Essays of the Diploma in Social Studies (Occupational Health and Safety)



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The article presents a snapshot of some of the long essay findings which were carried out in part-fulfilment of the Centre for Labour Studies' undergraduate Diploma in Social Studies (Occupational Health and Safety). Despite their academic limitations, the presented findings provide an insight into the present health and safety situation within a number of sectors including: construction; manufacture; aviation; administrative and office work; and health care. In so doing, they provide direction for policy development and further research.

As part of the undergraduate Diploma in Social Studies (Occupational Health and Safety), students are required to complete a long essay on a topic which is both relevant to occupational health and safety (OHS) and of interest to them. These long essays, whilst primarily an academic exercise, shine a light on the state of occupational health and safety in diverse sectors and industries. The following article highlights the findings of a number of these long essays and thus informs the reader of the state of OHS in a number of sectors including, but not limited to: construction; manufacturing; aviation; administrative and office work; and healthcare. Studies were chosen on the basis of their quality (and thus their grades) as well as their level of relevance.

3.4.1 Ergonomics, Manual Handling and Musculoskeletal Disorders

Abdilla and Schiavone (2014) conducted a qualitative study by means of 18 interviews to explore the occupational hazards experienced by **airline cabin crew**, with a particular focus on ergonomics. The researchers found that, whilst cabin crew were provided with induction courses, health and safety issues were not directly addressed. Organisationally, cabin crew also expressed the need for risk assessment to be conducted, updated policy regarding stress and the ability to fly to be made available, and more importance to be given to safety oriented checks of catering equipment. Environmental concerns were also highlighted and included: the cold environment where cabin crew's seats were positioned on the aeroplane; cabin air quality; cosmic radiation exposure; and hygiene practices. Health related factors included a request for vaccinations offered by the company; provision of suitable footwear and oven gloves. Finally concerns also related to manual handling were outlined, including: the weight of bar trolleys; handling of persons with reduced mobility; and the amount and weight of hand luggage allowed on board the aircraft.

Delia and Fiorini (2014) analysed the factors that influenced the health, in particular musculoskeletal health, of 55 computer workers within an **office environment**. With regards to environmental factors, 66% of workers complained about the offices' noise levels, 43% of these complaining that the office was too quiet, whilst 45% of workers felt that the office temperature had a negative effect on them, this despite standards being met. In terms of participant workstations, the office chair was found to have the greatest negative influence on workers (81%): in particular, back pain was found to be more prevalent in those workers utilising chairs that did not provide any lumbar support. The study also found that repetitive clicking of a mouse was linked to finger discomfort, whilst long term usage of a laptop was associated with neck discomfort. Those workers who reported taking short breaks or conducted other activities away from the computer, including exercise, reported suffering from less musculoskeletal symptoms.

One hundred quantitative structured interviews were conducted by Grima and Attard (2014) to study the prevalent postures adopted by **fishermen** during their normal working day that contributed to lower back pain. The study found

that awkward positions, restricted space, a continuously moving platform, the marine environment, fatigue, sleep deprivation, long-duration fishing trips, heavy manual handling, and commercial pressures were all common occurrences for fishermen and had the potential to contribute to the aetiology of musculoskeletal problems. In fact, 96% of fishermen were found to have experienced back pain in the last six months. The authors concluded that control measures should be implemented, including: shortening the length of fishing trips; extending sleeping breaks; the introduction of mechanisation to reduce manual handling; encouraging job rotation; workstations should be improved; fish boxes should not be overloaded; training on manual handling procedures should be introduced; and personal protective equipment should be used where necessary.

The awareness of 100 **computer workers** from various organisations regarding work related upper extremity (WRUE) disorders were evaluated by Montebello and Fiorini (2014). Findings suggested that a substantial number of respondents (81%) had experienced WRUE symptoms, whilst their awareness of both this topic and ergonomics was low. Training on OHS and ergonomics was found to be lacking, whilst most respondents were unhappy with some ergonomic elements of their computer set-up, including: the suitability of their chair; their overall sitting posture; the position of their forearm; the position of their keyboard; and glare on their computer screen.

Muscat and Goggi (2014) conducted a cross-sectional study employing quantitative research methods to explore the prevalence of musculoskeletal disorders and the moving and handling techniques employed by **nurses** working within a geriatric setting. Seventy six questionnaires were collected and the researchers found that, whilst manual handling equipment was available, few respondents made use of it. Rather antiquated manual handling techniques were employed. The prevalence of musculoskeletal pain and disorders was found to be high: 87% of female participants and 64% of male participants reporting lower back pain, followed by neck, shoulder, lower limbs, upper back and upper limb disorders.

3.4.2 Noise Pollution

Making use of an online survey, Armani and Fiorini (2014) aimed to identify where individuals are exposed to hazardous noise, and thus identify the prevalence and causes of Noise Induced Hearing Loss (NIHL). Two hundred and fifty responses were gathered from **university students**, with results suggesting that hazardous noise levels are not limited to the workplace but are also present during leisure activities. Twenty five percent of the studied sample reported being exposed to excessive noise levels at work, whilst 80% of the sample reported experiencing some hearing related problems at some point during their lives – the most common symptom was tinnitus (ringing in ears – 58%). The most common location where symptoms were experienced was whilst attending a discothèque, club or concert. Results also indicated that, whilst individuals may be aware of the hazards involved, they still do not take precautionary steps to protect their hearing. Younger individuals were also found to be more prone to hazardous exposure than older generations.

Borg and Callus (2014) conducted an occupational noise study of Malta's primary **power station** with the intent of determining the level of exposure of the organisation's employees. Noise monitoring was conducted at 28 different locations over a 24 hour period of time; 13 of these monitored stations were outdoor areas, whereas 15 were indoors. Noise temporal graphs for the monitored areas were analysed to identify the different sources of noise for each case. Additionally, the minimum, maximum and average values of each station were determined. Finally, a noise map was drawn allowing for the visualisation of the distribution of noise across the entire area. The authors reported that employees who worked in the plant for an entire shift were most exposed to noise pollution; these were followed by those that worked both in an office environment and the plant. Unsurprisingly, plant machinery including turbines and boilers, diesel engines and compressors were identified by workers as the most frequent source of noise pollution. Temporal data revealed that the area between the boilers and the fuel oil treatment area had the highest outdoor mean noise value. Noise levels were found to be higher indoors with mean temporal scores highest inside the diesel engine enclosure, within the new centrifuge room, and within the area of the condensers.

Pulis and Vella (2014) studied the perception of noise pollution by **aviation workers** whilst also exploring their health and safety awareness. Via a cross-sectional quantitative study, the researchers found that of the 134 participating labourers, 27% reported a hearing impairment. Of these, 72% had been working in the industry for more than 10 years. The authors also established that these workers needed to be more aware of health and safety matters. It was thus concluded that management needed to do more to: enforce supervision; review risk assessments and procedures; provide more information and training to employees; and ensure that employees undertake health surveillance.

3.4.3 Pulmonary Health

Fuel station attendants are exposed to volatile fuel compounds and roadway motor vehicle exhaust. In view of this and by means of spirometry, Borg and Rosso (2014) conducted a comparative study to explore whether 30 fuel station attendants manifested a deterioration in lung function when compared to a control group of 30 full-time workers also working outdoors. All participants were males and half of each group were smokers. Results demonstrated a significant decrease in lung function in the fuel station attendant group when compared to the control group. A further significant drop in lung function was discovered between attendants who smoked and those who did not.

Quantitative questionnaires, spirometry and dust monitoring testing was conducted within two powder producing **food manufacturing** sites to investigate if any health effects due to dust exposure were present (Borg & Apap, 2014). Findings demonstrated that, while respiratory health effects and eye symptoms were not considered an issue amongst the population under study, nasal symptoms and skin symptoms were both attributed to dust exposure. Dust monitor results varied between the tested areas as did reported symptoms; the majority of spirometry results however were found to be normal.

3.4.4 General Health and Safety

Having conducted interviews with 70 **fuel station** owners, Borg Pisha and Farrugia (2014) found that there is a low level of awareness among certain

employers in the fuel service sector on a number of OHS matters. The authors found that such employers could be divided into three categories, depending on their commitment to OHS matters. These included: (1) those employers who already have a risk assessment, OHS policy and other basic OHS measures in place; (2) employers who give the impression that they are in conformity with OHS legislation but in actual fact are far off from achieving compliance; and (3) employers who were doing little to comply. The findings highlighted that only 11% confirmed that they had conducted a risk assessment, whilst 65% did not have a first aider, a designated person for fire-fighting, or a designated person competent in OHS matters. All respondents however had first aid materials and 96% had relevant health and safety signs.

Galea and La Ferla (2014) studied hazards as perceived by 22 motorcyclists of the **Malta Police Force**. The study found that the majority had been involved in accidents at some point during their riding duties. Officers preferred to ride as a team rather than individually, 38% reported insufficient rest at the start of their morning shifts, whilst verbal insults, physical assaults and animal attacks were also issues. Concerns were raised regarding equipment including: inadequate protection from road pollution; police riding helmets were perceived to require improving; whilst all respondents highlighted the need for a waterproof jacket with shoulder, back and elbow protectors, protective gloves and motorcycle boots with shin, ankle, heel and toe protectors. Many respondents also lacked waterproof trousers made of special protective materials. The authors also noted that many of the respondents also lacked training on topics such as fire fighting and first aid.

By means of face-to-face interviews and questionnaires, Micallef and Sammut (2014) set out to evaluate the health and safety compliance by third party contractors in **petroleum installations** in Malta. Unexpectedly, it was established that the engagement of third party contractors was not common in Malta. Additionally, the authors found that the complexity of organisational control measures varied between organisations, with the relationship being linked to the frequency of engagement of the third party contractor services. It was concluded that incident statistics as being kept by the Maltese petroleum organisations concerning third party contractors were

incomplete, leaving room for improvement. The researchers also noted that attempts were made to establish a general level of legal compliance by the contracting clients and the third party contractors themselves. The results however were not entirely positive.

Pace and Micallef (2014) focused on the use of personal protective equipment (PPE) within the Maltese **construction industry**. Ninety questionnaires were distributed to labourers, stonemasons, tile layers, plasterers, heavy machine operators and electricians, finding that PPE usage was high, as was worker awareness about the utility of PPE in preventing injury and ill health. The researchers however also found that the respondents possessed poor knowledge of the legal regulations regulating PPE, whilst the major reasons attributed with non-compliance were that PPE limited workers' movement, had a poor fit, and caused heat stress.

Knowledge of evacuation and emergency response in a **residential home for the elderly** was studied by Spiteri and Azzopardi Lane (2014). The study concluded that, from the 98 questionnaires collected, employees both lacked training and knowledge on how to respond in such an eventuality. The negative finding was attributed to the high turnover of employees and the impact of the cost of training on the employer.

Treeby and Ebejer (2014) analysed the link between **construction workers'** attitude towards health and safety versus (a) their age; and (b) their fears. Eighty workers were interviewed with authors finding a clear relationship between age and attitude, with workers aged over 55 years exhibiting a far more careless attitude compared with other age groups. No link however was discovered between fear and attitude. The authors also noted that not all construction workers were receiving health and safety training equally and uniformly.

The dangers faced by 33 **National Statistics Office (NSO) survey interviewers** when conducting fieldwork, as well as how they coped with such perilous situations, was analysed by Vella Haber and Baldacchino (2014). Via this cross-sectional study, which utilised both quantitative and qualitative research methods, it was reported that the hazards interviewers encountered most commonly were: emotional distress in response to participants' disclosures;

accidents due to travel by personal transport; and personal injury or attack by pets. It was however noted that the level of exposure to these situations was relatively low. The majority of participants felt that little could be done to prevent such situations from occurring; however, a few suggested that preparatory training would be of benefit.

3.4.5 Biologic and Chemical Safety

Camilleri and Fiorini (2014) assessed the incidence of reported needle stick injury (NSI) in the Gozo General Hospital. From a sample of 100 **hospital workers**, it was found that 18% had experienced such an injury. Unsurprisingly, nurses were found to experience NSI most frequently (60%) followed by nursing aids (20%) and physicians (16.7%). This finding however was secondary to the greater number of nurses in the sample: in fact, half of the participating doctors and half of the participating nurses had each experienced NSI. Most NSI's were found to occur midway through one's shift. Findings suggested that some NSI's may be going unreported, in particular when respondents viewed the patient as not falling within a high risk group. The researchers discovered NSI training was not being held regularly enough, in particular for workers other than nurses, whilst NSI policy was not easily obtainable. Most of the devices used were also found to be lacking safety features which help prevent NSI; it was thus recommended that these are introduced.

Utilising the World Health Organisation (WHO) Alcohol Use Disorders Identification Test (AUDIT-C), Ciappara and Massa (2014) evaluated the consumption of alcohol in 183 members of the **police force**. Ninety two percent of officers reported that they consume at least one alcoholic drink within a range of: "once a month or less", or up to "four or more times a week". In fact, 37% reported that they drink once a month or less, whilst 34% stated that they consume alcohol twice to four times a month. 15% reported drinking alcohol twice to three times a week, whilst 6.1% reported that they consume alcohol four or more times a week. The authors concluded that, when compared to the NSO lifestyle survey (2007), police officers were consuming alcohol at a rate of 36% above the general population. It was thus concluded that alcohol consumption within the police force must be targeted via a number of interventions including: education; health promotion; stress management; and an inter-department alcohol use policy.

Zerafa, Conti, and La Ferla (2014) analysed the level of awareness of 52 **nail technicians** with respect to their exposure to chemicals and airborne particles. The authors found that only 7% knew what a risk assessment was, and none had completed one. Low awareness was reported of dangerous chemicals found in nail products, whilst a substantial number of technicians reported suffering from nasal symptoms (52%). Limited use of effective personal protective equipment was highlighted, whilst mixed results were obtained for the availability of first aid kits and fire extinguishers. The authors found that older generation nail technicians were more apprehensive about occupational health issues. Whilst the work of nail technicians can be done safely if safe systems of work are adopted, it was found that the ventilation system adopted by most salons was insufficient to reduce contaminants.

3.4.6 Psychosocial Factors

Vella Haber, Borg and Debono (2014) conducted a quantitative cross-sectional study with 118 participants in order to investigate psychological harassment among **public sector workers** in Malta. The author concluded that 25% of respondents considered themselves to have regularly been victims of psychological harassment in the six months that preceded the survey. Few respondents however viewed this as regular bullying, with only 2% of workers viewing this as such. The authors thus concluded that, despite being exposed to negative acts, many were hesitant to label themselves as being bullied. Bullies were found to be predominantly male, older than the victim, and occupying a higher social position than the victim.

3.4.7 The Role of Trade Unions in Health and Safety

A mixed method study was conducted by Micallef and Rizzo (2014) to investigate the perception of workers regarding the role of Maltese trade unions in health and safety. One hundred and twelve quantitative questionnaires were collected from **unionised workers** and supplemented by two qualitative interviews conducted with trade union representatives, and one interview with employer representatives. The authors found that workers are more likely to seek their employer's assistance and involvement when health and safety matters arise: unions were not seen as an entity to turn to regarding OHS matters. Trade unions cited a lack of resources to involve themselves fully in OHS matters whilst also noting a lack of interest

from workers themselves. The employers' representative on the other hand noted that trade unions were more likely to demonstrate their militancy to enhance their image, rather than tackle OHS matters. The authors thus concluded that OHS matters are peripheral to both union officials and to the workers themselves.

3.4.8 Conclusion

Whilst the rates of recorded occupational injuries as compiled by the NSO are generally dropping, the highlighted long essays demonstrate that further progress still needs to be made in most sectors and industries in Malta. The article only presents a snap shot of each long essay, with each containing further findings and interpretations. Findings however must be interpreted with a degree of caution as they originate from unpublished long essays which due to their academic level may have a number of shortcomings and limitations. Despite this, many of their results are both interesting and relevant, particularly in a country which produces limited relevant scientific research in this field.

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