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Abstract
The focus of this article is to review the literature relating to health and safety in UK Higher Education libraries. This will include an overview of the literature on accident theories and also the human element. Various key findings emerge from this analysis. Personal safety is achieved through self-responsibility, following guidelines and having a working knowledge of reporting procedures. A safety culture in the work environment is developed through a proactive approach on the part of management, the provision of information, training, and carrying out safety inspections. These inspections are aimed at preventing the environment from creating a situation where an accident could occur. There can never be a work environment in which no accidents will occur and best practice can only minimize the risk of accidents.

Keywords: university libraries, health and safety, literature review

Introduction
Higher Education (HE) libraries are departments of high footfall; it is hoped that most if not all customers and many members of staff will make use of library services. Although there is a shift toward the digital library, there are still books on shelves, books that may fall from the shelves, shelves that may become dislodged, books that need to be transported by trolley and reshelved, trolleys that may become faulty, and floor surfaces that may become uneven and disrupt the smooth transit of the trolley. Library staff can expect to be able to come into work and be safe and to return home uninjured. However, while at work there are many contributory factors at play that affect the outcome of each action taken and each decision made. The following questions can be posed by library staff to themselves:

- Are we giving the task our full attention?
- Have we received training in what to do and did we listen carefully to instructions? Are we wearing the correct clothing and footwear for the task?
- Are we taking full responsibility for what we are doing and taking all the precautions that we know we ought to?

Safety is not something that can be imposed; the responsibility has to be owned by individuals who play their part in creating as safe a working environment as possible for themselves and others. If there is a safety culture, less preventable accidents may still occur. Institutional safety culture has been evolving over the years, due to a number of factors including legislation, training and awareness, and responsibility.

A search through the literature and professional bodies’ websites shows an abundance of general safety advice, research, and data but a dearth of library specific advice and data (especially in the higher education field). The purpose of this review is to establish the lessons, concerns, and ideas impacting upon health and safety in UK Higher Education (HE) libraries.

When carrying out the literature searches, the following procedures were followed: keywords or search terms were entered into the “Topic Guide” option and the resulting suggested topics sorted by relevance were then pursued. Literature searches in databases are a non static process. The same search tomorrow may not result in the same outcome as today. New articles are appearing every day, so replication of a particular detailed search with an identical outcome could be difficult.
to achieve over time. The dynamic of research is that new sources are always becoming available and the challenge is to discover and access them.

When searching in the "Basic Search" the option was chosen to limit results to full text documents only or scholarly journals, including peer-reviewed documents. In all the searches, in deciding which articles to access, date of publication, availability, and perceived relevance were all considered. There can be many duplicates in the results of searches, with the same articles appearing as a result of different search terms. By systematic trial and error, and using various combinations and forms of key words, documents are located. Details of a few of the searches follow:

- A search for “safety libraries” resulted in 26 documents, 2 of which were of immediate relevance to this research.
- In the “suggested topics about” box “libraries and safety” was a suggested term. This subsequent search resulted in 7 documents, 4 of which were of immediate relevance.
- “Libraries and safety and higher education” resulted in 5 documents, none of which were of immediate relevance.
- “Workplace and safety and libraries and higher education” resulted in no documents.
- “Workplace and safety and libraries” resulted in 41 documents, 1 of which was relevant.
- “Occupational safety and occupational accidents” resulted in 845 documents, none of which were of immediate relevance.
- “Occupational health and safety” resulted in 12,563 documents, none of which were immediately relevant.
- “Occupational health and safety and libraries” resulted in 39 documents, 1 of which was of immediate relevance.
- “Occupational health and safety and libraries and higher education” resulted in no documents.

**Accident Theories**

A wide range of theorists have approached accidents from a range of perspectives, including Strahlendorf (1995), and Paterson (1999). Paterson (1999) writes that a library is an investment in humanity. Library directors need a vision of the future, for example, an effective training program. The alternative to this is the hidden costs of inadequate training which leads to dwindling competence, dismal morale, high staff turnover, absenteeism, avoidable accidents, complaints, and poor quality of work. Library staff are the key resource of the library.

Strahlendorf (1995) discusses the causes of accidents. The psychological model focuses on factors such as stress or conscious decisions to “take a risk.” Strahlendorf includes “accident proneness: theories that show that people with certain personality traits are more likely to have accidents. He shows clumsiness has been identified as having a potential genetic basis. Clumsiness may also indicate poor depth perception or be a sign of other underlying medical conditions. These factors do lead to the “blame the worker” or “blame the management” responses (Strahlendorf 1995).

Bennett et al. (2000) carried out a small scale study with health and safety professionals on the subject of whether all accidents are preventable. The emerging perspective was that not all accidents are preventable and that staff and employers should proceed on the basis that they are. All accidents have material causes that can be discovered, predicted, and controlled. If it is true that armies are always equipped to fight the previous war, it may also be said that Health and Safety reforms always attempt to prevent the last accident.

The concept of zero risk in the work place is very unrealistic. There can be zero accidents for increasing periods of time but the probability of never having an
accident over the next 100 years in an organization is negligible. With care, an individual employee or an organization can elevate the probability that there will not be an accident in the next hour to a far more acceptable level. In order to create an optimally safe and effective workplace no single element such as people, equipment, tasks, or environment can be considered in isolation as each affects the others. If a “zero tolerance” of hazards is applied (however minor they appear), it may be possible to eliminate a number of potential accidents or incidence from occurring. Playing out “what-if” scenarios can provide a “proactive hazard identification technique.” To say that all accidents are preventable is to ask people to be perfect and without error and is to ignore the role that random variation plays in peoples’ lives.

Bennett et al. (2000) note that the word “accident” can be used to mean one of two things. Either the event is unpredictable, in which case it cannot be prevented, or the term implies that the injured person alone is “author of their own misfortune.” The first case implies that there is a whole range of incidents that are beyond the control of health and safety practitioners so that they can safely be ignored. The second case implies that workers alone are the focus of health and safety programs, not the physical conditions in the workplace, management, equipment, or other factors. In the modern workplace, neither of these prejudiced assumptions can be afforded.

Cliff (1984) defines the word “accident” as an “unpredetermined event resulting in a recognisable injury.” Bennett et al. (2000) have shown that the prejudiced notions of an accident exclude the bulk of physical injuries in the workplace. In most organizations, these are the very constituents of “health and safety” as a discipline of management. Both in law and in theory, the individual workers’ responsibilities are central to good health and safety practice: a partnership with management in the creation of a safe environment in which employees can achieve their daily goals.

J. Davies et al. (2003), in discussing safety and trust in organizations, state that people offering a service knowing that there are certain risks attendant on the offering of that service have a moral obligation to manage those risks and to make the risks known to those who avail themselves of the service. The word here is to manage and that is not the same as to eliminate. Elimination of all risks is not feasible. Management of risk demands resources. They also suggest that improving safety and safety culture requires “a detailed focus on the acts that people perform and an equally detailed focus on what people say” (J. Davies et al.). Wilde (1994) explored where risk is situated and concluded that:

the prospect for greater public safety is unlikely to be found in a technical fix because of the way people respond to such fixes. Instead, the prospect for safety is inside the human being, not in the human-made machine or human-made physical environment.

As a result, management cannot totally ensure safety; therefore, it is imperative that the individual worker owns responsibility for their own safety and the safety of others at work.

The People Factor

Bad things sometimes occur for no particular reason. Psychologists at the University of Tennessee researched the concept of randomness and the search for meaning even where none exists (Anonymous, 1995). A “lucky streak” may be due to prior preparation and an opportunity arising or just chance; “bad luck” may be due to disregarding sound advice or just chance. Sometimes things just happen. Fryman (2004) reported that accidents are rarely a single event but rather an accumulating or chain of events that finally result in an accident. These events are usually foreseeable, or at least the indicators are present. It is observed that people do not intentionally act in an unsafe manner, but they will attempt to perform their assigned
jobs as they see necessary. They will also expect installed safeguards to be adequate. This leads to the problem of attitude and personal actions.

Research into workplace boredom and how people cope was completed by Game (2007). High “boredom copers” reported better well-being and greater compliance with organizational safety rules compared with low “boredom copers.” The implications of this finding are that the negative effects of boredom have to be managed through training or job redesign to provide a challenge and so reduce the boredom. Hersey (1978) writes that there is something in human nature that rebels at the idea of continually being safe. Accidents result largely from a lessening of the power of integration, which may come from either unhappy emotions such as worry and fear or from too high emotions such as elation and undue exhilaration. These emotions may result from very pleasant events, periodic emotional fluctuations, home difficulties, and/or lack of sleep leading to fatigue.

Closely connected to the more general emotional factors that apply to most workers are the personality factors that are a part of the emotional make-up and that cause the largest percentage of accidents to happen to those workers referred to as “repeaters” who repeatedly have accidents. A balanced positive state leads to the reduced propensity to have accidents. There are two approaches to overcome emotional factors: the individual approach, one-to-one; and the collective approach, that is, all the workforce.

The implication for all library staff is that each member of staff should run his or her own risk assessment when facing a situation. Various questions should be posed, such as:
• Should I risk carrying a heavy bundle of books or should I take two trips and carry a lesser load with which I am more comfortable?
• Should I risk trying to move a heavy load on a trolley or should I lighten the load and take two journeys?

Practical Guidance
A range of authors have identified a range of advice and guidelines that library staff should adopt and follow. M. Mason (1997) wrote specifically for library assistants regarding safer working practices in libraries, giving guidance on how to avoid the risk of injury or even long term illness:
• balance periods of frequent repetition with non-repetitive work;
• vary your work allowing one set of muscles to rest while another is used;
• relieve stress by using alternate hands where possible;
• if you perform an activity repeatedly or you hold yourself in a position for any length of time it is important to allow your muscles time to recover;
• be proactive not reactive;
• look critically at all the work that you do that involves lifting, carrying, pushing or pulling;
• think about how you perform these tasks and what stress and strains they may be causing;
• ask someone to look at the way you work with a view to making improvements;
• review your work habits at least every three months as we easily fall into bad habits;
• wear comfortable clothing; take things at a pace at which you feel comfortable;
• do not try to compete with other people who may be fitter than you;
• know yourself and your limits;
• never twist your spine but turn your whole body;
• the job must feel comfortable;
• no overextended hand span or over reaching;
• beware of moving/flying/falling objects.
Farris (2003) describes the proper way to shelve books, including the proper way to push and pull items, and shelving books in a back-healthy way. Various bad habits that can affect safety at work in the library includes over confidence, laziness, stubbornness, carelessness, impatience, and ignorance (M. Mason, 1997). Bad habits like these lead to bad working practices. Mason urges library assistants to seek medical advice at the first sign of muscular pain; letting the pain continue for too long can lead to permanent disability.

A chiropractor, Sokoloff (2003), presents a video entitled “Back Talk,” filled with healthy ways to perform basic library tasks in an effort to maintain back safety and reduce on-the-job back injuries. Bernal (1992) aims to help employers comply with health and safety regulations in the workplace through a multi-media interactive CD-Rom entitled Hazard Awareness Health and Safety Library. In the context of stress in the workplace, Foegen (1987) examines how, as quiet time has decreased, demand for it has grown. He states that it is the managers’ responsibility to provide quiet at work as it can further managements’ own productivity oriented goals. J. Eric Davies (1992) looks at how information technology, while bringing many benefits may also be perceived as the source of problems in the workplace. He concludes that designing a system around people and not expecting people to adjust to a system is sound advice.

It has been reported that slips and trips are the most common of workplace hazards (HSE 2009) and that almost a third of the total of workplace accidents in the UK are the result of slips and trips (SafeWorkers, 2009). In order to try to eliminate any hazards employers should ensure:

- Flooring is suitable and worn flooring is replaced;
- If ice is prevalent outdoors, it is cleared and the area is sanded or gritted;
- Trailing cables are hidden away;
- Flooring is cleaned regularly using appropriate cleaning materials;
- There are adequate hand rails, guard rails, and sufficient lighting in place;
- Areas that are temporarily wet or slippery are clearly marked.

Around a third of all workplace accidents arise from manual handling. This is the term used for any activity that includes lifting, lowering, pushing, pulling, carrying, moving, holding, or restraining an object, animal, or person. The majority of injuries are musculoskeletal disorders to backs, and also include strains to hands, arms, feet, tendons, and the heart (HSE 2009). Employers should take care to ensure any carrying:

- Should not be over long distances
- Should not require extensive twisting, stooping or reaching upwards
- Should not require any strenuous pushing or pulling
- Should not ask anyone to carry anything where load movements can be unpredictable, unstable or difficult to grasp
- Is done by heavy goods lifting equipment where possible
- Provides health and safety instruction on good lifting practice. (Safe Workers, 2009)

When using a trolley it should be pushed at all times, rather than pulled. The trolley will have a degree of inertia which will increase as the load upon it increases. The action of pulling flattens the lower spinal curve and weakens the spine. If the member of staff then twists their upper body to any degree, there is a good chance of injury occurring to the back.

Safety Management
There are various health and safety issues that are apparent in libraries. Security concerns are present as libraries are used by a wide range of people. Ewing (1994) notes the verbal and physical abuse of library staff and users and Farrugia (2002) writes about violence in British public libraries. Contrary to popular perception,
libraries are not always quiet, pleasant workplaces. Hupp (1999) writes about threats to staff. Pease (1995) also notices that libraries are usually thought of as havens of quiet, whereas they have a long history of encounters with disturbed and potentially violent patrons leading to workplace violence. St. Lifer, McLaughlin, and Williams (1994) report on library crime and potential violence and Topper (2008) warns that libraries must be on the alert regarding security.

Some physical disorders are also present. S. Mason and Williams (2006) report on musculoskeletal disorders. Redfern, Rees, and Rowlands (2008) discuss occupational stress and Whyall (2006) discusses ongoing and reoccurring lower back pain problems. Responsibilities exist in all individuals for their own safety. No-one knowingly should attempt to lift a heavy table single handed; they ought to know that would result in back strain. Similarly, no-one should take a phone call cradling the receiver between shoulder and ear; it ought to be known that this could result in strain. These simple observations show the importance of workstation assessments to account for individual changing needs. Training must be continually kept up-to-date, to meet the changing demands of the workplace and accommodate a dynamic workforce. Risk assessments should also be current, and Protective Personal Equipment supplied whenever required or requested.

There is also an extensive legal framework for health and safety. The idea that employees should be safe at work is not a recent phenomenon (CIPD, 2008). Legislation was developed in the 1970s to streamline the many different statutes governing safety issues making management responsible for the provision and maintenance of adequate standards and policies. Although there are many different statutes governing safety issues, health and safety is not only governed by legislation. Under what is known as “common law” all employers have a duty of care imposed on them to protect their employees. Employees also have responsibilities and should work with their employer to develop a safe place of work.

One of the most important statutes is the Health and Safety at Work Act (HSWA) (1974). All work places are covered by this legislation which stated that under Duty of Care, an employer must do everything reasonably practicable to provide a safe and healthy workplace with adequate welfare facilities. HSWA has been supported and extended by various sets of regulations, codes of practice, and guidance, all of which deal with various aspects of health and safety. The intention is that no-one should come to harm while at work. However, the responsibility is not one-sided, it is shared by both the employer and the employee.

Effective health and safety in the library is enhanced by training for all staff. Potter and Potter (2008) state the importance of getting the safety message over to employees, telling them something that may save their lives. Collective knowledge leads to a safe workplace. Mandatory safety training sets the base line, and training ought to be for those with safety responsibilities as well as employees. Coupled with training, there has to be approaches to increase staff awareness. Various free information leaflets are available, for example, from the Health & Safety Executive (HSE Website 2011). On a more lighthearted note, there are numerous web sites offering quotations about safety and workplace safety, to be used as promotional or motivational material or to raise awareness.

In conjunction with training and raising awareness, a good management system would be in position to help individuals to identify problem areas, decide what to do, act on decisions made, and check that the steps taken have been effective. This will necessitate developing a health and safety policy and then ensuring it is organized, planned, and implemented. The performance of the policy then has to be measured.

Conclusions
The purpose of this article has been to explore what lessons, and so forth, can be learned from the literature on health and safety in UK Higher Education (HE)
libraries. The sensitivity of the subject of accidents in the workplace could account for the scarcity of published work on health and safety issues in libraries and in higher education. Nevertheless, there are some important themes and concerns emerging in the general health and safety literature. Around a third of all workplace accidents arise from manual handling and that slips and trips are the most common of workplace hazards. Libraries do not have their own unique accidents that do not occur anywhere else. The sort of accidents that occur in HE libraries can be predicted due to inherent operations. There are tasks in which there is potentially a risk of harm or injury, for example, those tasks requiring manual handling, and library staff should be aware of the dangers and take adequate precautions.

There are variables that are outside the control of managers including individual members of staff and their own attitude toward health and safety issues. Some library staff may be prepared to take a risk, fully informed of the possible consequences to themselves or others. It is the responsibility of management to do everything possible to minimize risk native to a work place or procedure and to react to risk in a sensible manner. It is the responsibility of those who work in a “safe environment” to conduct themselves safely. Managers have role in ensuring a safety culture and environment exists:
• promoting self–responsibility;
• raising awareness of guidelines, policies, and procedures;
• providing training;
• carrying out safety inspections acting on issues; and
• remaining vigilant and adopting a zero tolerance of hazards.

It is impossible to put in place adequate control measures for people who know what they ought to do and who still do what they ought not. The goal has to be to equip a workforce and library customer population to exercise informed common sense.

References
HSE. Health and Safety Executive Website. 8 Sept. 2011.


