**Background**

**BRAC University Center for Wellness in the Workplace**

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**Background**

Bangladesh is a rapidly developing country with a GDP growth of approximately 8% pa. The country’s main industries are agriculture, textiles (Ready Made Garment manufacturing), construction and shipbuilding plus a broad spectrum of service and support industries. These industries, coupled with the rapid growth, are associated with a significant level of occupational injuries and worker turnover:

<https://www.ilo.org/dhaka/Areasofwork/safety-and-health-at-work/lang--en/index.htm>

It is recognized that the country also faces other major (public health) challenges such as road accidents, environmental pollution and infectious diseases. Occupational safety and health issues are sometimes less visible problems that hamper the nation’s aspirations to grow in international standing. Furthermore, employment, albeit with minimal compensation, is usually preferable to unemployment as has been demonstrated extensively throughout South East and East Asia over the past half century:

Nihei, Y, Kao S.R.K, Levin, D.A., Morkle, M.E. Ohtsu, M. and Peacock, J.B. “Technology, Employment Practices and Workers – A comparative study of ten cotton spinning plants in five Asian countries.” (Hong Kong, Taiwan, Malaysia, Thailand and The Philippines), Center for Asian Studies, University of Hong Kong, 1979.

More recently (2018) Marjorie van Elven writing in “Fashion United” presented the following article regarding the minimum wage issue in Bangladesh:

<https://fashionunited.uk/news/business/bangladesh-raises-minimum-wage-for-garment-workers/2018091438912>

*“The minimum wage for Bangladeshi garment workers will rise by 51 percent from December, the country’s Ministry for Labor and Employment is quoted by Reuters as saying. According to the news agency, the new minimum wage has been set at 8,000 taka (approximately 95 dollars) a month, up from 5,300 taka (63 US dollars).*

*The last time garment workers’ salaries were raised was in 2013, right after the Rana Plaza disaster, when an industrial building housing several garment factories collapsed, killing more than 1,130 workers.*

*The pay increase is the result of a long negotiation between the Bangladeshi government, garment workers and factory owners. Workers had*[*initially proposed a minimum wage of 16,000 taka*](https://fashionunited.com/news/business/clean-clothes-campaign-supports-bangladesh-garment-wage-increases/2018070622185) *(189 US dollars) at a national minimum wage board meeting in July.”*

**It is estimated that over 11,000 workers suffer fatal accidents and a further 24,500 die from work related diseases across all sectors each year in Bangladesh. It is also estimated that a further 8 million workers suffer injuries at work – many of which result in permanent disability. Although little research has taken place in Bangladesh, it is internationally recognized that most occupational deaths and injuries are entirely preventable, and could be avoided if employers and workers took simple initiatives to reduce hazards and risks at the workplace.**

The ILO is working in cooperation with the [Ministry of Labour and Employment](http://www.mole.gov.bd/), Bangladesh Employers’ Federation (BEF), National Coordination Committee for Workers Education (NCCWE), Industriall Bangladesh Council (IBC) and social partners such as the Occupational Safety and Health and Environment (OSHE) Foundation and the Bangladesh Institute of Labour Studies (BILS), work to foster a preventative safety and health culture by strengthening national occupational safety and health (OSH) systems. This includes support in the following areas:

* Updating the National OSH Profile and developing a National Plan of Action on OSH
* Working with employers organizations to cascade basic OSH training to 750,000 – 800,000 workers in 400 RMG factories
* Providing OSH capacity building to master trainers from NCCWE and IBC who will pass on these skills to some 3,000 workers
* Developing an OSH KIT for initiating and functioning Safety Committees at factory level
* Preparing advocacy and outreach campaign on OSH to help foster a culture of OSH in the country
* Supporting the establishment of OSH committees in Better Work factories

<https://www.ilo.org/dhaka/Areasofwork/safety-and-health-at-work/facet/lang--en/nextRow--10/index.htm?facetcriteria=TYP=Publication>

<https://www.cbs.dk/en/research/departments-and-centres/department-of-management-society-and-communication/research/research-projects>

**BRAC University is highly motivated to support the growth of the Bangladesh economy while at the same time contributing to the increase in gainful employment and reduction of occupational safety and health issues.**

**Proposa**l

It is proposed that an interdisciplinary Center for Wellness in the Workplace be developed at BRAC University with a mission to provide consulting services to industry and education and training of government and industry managers, health and safety professionals, grass roots safety and health practitioners and individual employees. Initially the education and training initiative would be accomplished through literature and guideline development and distribution, short course programs ranging from three hours to three days to three weeks. Later, it would explore the possibility of expansion into graduate and undergraduate courses, and applied research activity. The communication initiative would be implemented initially by targeted literature on specific hazards.

**Structure**

The Center will be housed in BRAC university facilities and staffed by a combination of University specialists and industry practitioners operating initially on a part time basis. Faculty with backgrounds in medicine, engineering, ergonomics, industrial hygiene, safety and statistics / epidemiology will be needed. Group activity friendly classroom facilities will be complemented by basic laboratory access and field visits. The interdisciplinary Center will be under the joint guidance of a steering committee from BRAC Engineering, Public Health and Business faculties, and invited industry representatives. Where local expertise is not readily available, efforts will be made to engage overseas experts on either visiting or full time bases.

**Special Focus**

The application of Ergonomics (Human Factors Engineering) as the technical underpinning of Occupational Safety and Health teaching and practice would address the physiological, psychological, medical, engineering design, operational, behavioral, statistical and financial bases of safety and health outcomes.

**Development Process**

Government and industry representatives will be solicited to collaborate with the Center staff to contribute to the development, implementation and monitoring of the Center’s activities and growth.

Initial development of the BRAC Center for Wellness in the Workplace would be by extensive research into international precedents and historical Bangladesh initiatives. Next the Center structure would be developed iteratively through the efforts of full and part time staff and through outreach to the University and Industry steering committee members.

It should be emphasized that successful developments will be dependent on a blend of academic and domain knowledge.

**Target audiences**

The Center and its activities would be marketed to industry managers through the medium of outreach communications comprising succinct flyers and short presentations both at BRAC University and industry locations. The purpose of this outreach would be to stimulate managers to recommend the Center’s programs and short courses to their employees.

Current BRAC students in Public Health, Engineering and Business would be encouraged to sign up for elective courses in Occupational Ergonomics, Safety and Health.

**Pedagogy**

The education and training initiative would follow contemporary delivery processes of student participation, group activity and objective analysis and reporting practices. Specifically the instructor will develop a theme, groups of between 3 and 5 students would analyze the problem and develop alternative solutions. Finally a “one page report” would be created to succinctly communicate the problem, analysis of available evidence and design of feasible alternative solutions, with due reference to published literature. Presentations of these one page reports to the larger class audience will contribute to the development of communication skills.

**Safety and Health**

Acute incidents comprise high mechanical (plus electrical or thermal) forces over short time periods. Such incidents include falls from a height, vehicle and moving machinery accidents, falling objects, cuts, trapped hands and fingers, scalds and burns etc. More insidious exposures to sustained and repetitive activities frequently result in cumulative trauma disorders / repetitive strain injuries. Whereas the former injuries result mainly from high forces, it is the temporal dimension that is the principal cause of the, also debilitating, latter injuries / illnesses. Individual / demographic susceptibilities such as age, experience and physical resilience also contribute to injury and illness incidence. The former acute injuries require some form of physical protection / guarding whereas the latter (cumulative) conditions are usually preventable by administrative interventions, such as job assignment, enlargement or rotation.

According to Herzberg, workers are (de)motivated by such things as low wages and hazardous working conditions but respond well to increased intrinsic work content. Thus methods to increase the variety of work not only motivate the individual and reduce turnover but also contribute to the resilience and flexibility of the workforce.

**Sequence of Activities**

Development of a Bangladesh Center for Wellness in the Workplace

* Create a working team
* Develop a preliminary plan
* Invite a steering committee
* Develop or adapt measurement tools
* Assess content and successes of similar programs
* Collect and analyze specific safety, health, job satisfaction and productivity data
* Implement evidence based pilot safety and health programs including training, job analysis and intervention
* Evaluate the effectiveness of pilot programs
* Carry out continuous improvement to the analysis tools and intervention methods
* Expand the Occupational Safety and Health programs throughout Bangladesh industry

**Supplementary Courses, Publications and Reports:**

* Safety, Risk and Resilience Engineering (Undergraduate course)
* Occupational Biomechanics (Undergraduate course)
* Aerospace Human Factors (Undergraduate course)
* Manufacturing Ergonomics (Graduate course)
* Medical Management of Work Related Musculo-Skeletal Disorders
* Book on the Laws and Rules of Ergonomics in Design
* Technology, Employment Practices and Workers (a comparative study of ten cotton spinning plants in five Asian Countries
* Ergonomics and Design for Elderly Singaporeans
* Ergonomics 2018 – A (Singapore) National Strategy for Managing Ergonomics in the Workplace
* The Ergonomics of Production Lines
* Employment Analysis and Design for Elderly Singaporeans
* Work Analysis Tools
* Setting Compliable and Enforceable Ergonomics Standards
* The Employment of Senior Citizens in Singapore
* The Yin and Yang of Ergonomics in Design