TOWARDS LEAN, SIX-SIGMA, AND LEAN SIX SIGMA MANAGEMENT OF STRESS IN UNIVERSITIES

Introduction Our universities must adapt to increasingly uncertain environments, face fierce international competition, manage budget cuts, increased auditing, rapid technological changes and increasing expectations of various increasingly demanding social partners, and personalise their academic programs. The 2000s brought interest in lean, six-sigma, and lean six sigma methods. This review of the literature summarises and analyses the documented experience of public and private universities around the world with these approaches.

Methods Scientific databases were queried to retrieve the relevant literature published from 2000 to 2016. The search was completed using the snowball effect. The results were sorted by geographical region, type of process and decisional level. The challenges addressed were also listed and sorted.

Result These approaches are innovative in the university setting. While few results are documented, experiments at American, British, Mexican, Finnish, South African, Indian and Saudi institutions are all on record. Activities in support of teaching and university community services were the principal targets. A single research-related case was retrieved, which dealt with supporting activities.

Discussion Lean, six sigma and lean six sigma methods are not deployed in any systematic way. The principal obstacles are system complexity and the difficulties of adapting the tools to institutional reality and of defining and applying the concepts of client and added value. The few documented measured results are isolated and do not support any generalisation. Impact studies are limited primarily to qualitative statements describing challenges and factors associated with success. No study of the impact of these approaches on the occupational health and safety of university staff was retrieved. Since the lean manufacturing literature mentions frequently both positive (task enrichment, autonomy) and negative (musculoskeletal injuries, stress, fatigue, professional burn-out and others) impacts, it cannot be ruled out that such impacts might be noted also in the university setting.

MANAGEMENT OF STRESS IN THE WORKPLACE: A NATIONAL RESPONSE TO IMPLEMENTING STRESS MANAGEMENT INTERVENTIONS

Introduction In 2012, the HSE launched the national ‘Policy on Prevention and Management of Stress in the Workplace’ which was developed by a cross-sectoral multi-disciplinary group. In line with this policy, the Organisational Psychology Unit, local HR (HSE West/North West/Mid West) and National HR designed resources and risk assessment tools to enable managers address workplace stress.

The 2015 European Safety Campaign ‘Healthy Workplaces Manage Stress’ afforded the HSE an opportunity to develop a national response to workplace stress as a psychosocial risk. The National Health and Safety Function (NHSF) recognised the need for a collaborative response and facilitated the development of a Workplace Stress Working Group (WSG). The WSG compiled of professionals from Organisational Psychology, Health and Safety, Occupational Health (OH), Employee Assistance and Counselling Services (EASC), Learning, Education and Development (LED), Health Promotion (HP) and I and HR.

Methods The WSG developed the HSE’s Cycle of Stress Management (Identification, Prevention, Support and Assistance and Monitoring and Review) and created supporting information material.

A seminar programme was developed to:

- provide support and disseminate tools to managers,
- implement workplace stress risk assessment,
- promote manager leadership in pro-actively managing and supporting staff health and wellbeing,
- assess personal health behaviours and
- create supportive positive work environments.

Key stakeholders from the WSG co-presented at these seminars.

Result To date, nineteen accredited seminars were held, with 842 attendees. 95% of evaluations received (75% response rate) were hugely positive.

Data from the NHSF, demonstrated one hospital increased its use of the stress management risk assessment tool by 62.5%, following two stress management seminars.

Discussion Anecdotal evidence suggests that managers are more confident in pro-actively addressing workplace stress and this is evident with the recent results of Health Sector Staff Survey Your Opinion Counts showing that almost 70% of staff are aware of the facilities to support stress in work.

STRESS, BURNOUT, PSYCHOSOMATIC SYMPTOMS AND THEIR ASSOCIATION WITH WORKING CONDITIONS IN DOCTORS OF HOSPITALS IN MEXICO CITY

Introduction The Burnout syndrome occurs frequently in health care workers. It is associated with stressors present in the medical work. These conditions are different between residents and doctors attached. The objective of this study was to identify the association between working conditions, stress burnout and psychosomatic symptoms in hospital physicians in Mexico.

Methods A cross-sectional study was carried out on a sample of 724 physicians in seven hospitals from Mexico City. An instrument was applied to determine socio-demographic characteristics and working conditions. To evaluate stress, burnout and psychosomatic manifestations, Wolfgang, Maslach and Kroenke inventories were used. They had a reliability of 0.91, 0.83 and 0.78 respectively.
Results 55% of the population were men; the median age was of 32 years. 51% were residents and 49% were doctors attached. There were significant differences in the working conditions of residents and doctors, p<0.001. There was higher prevalence of stress in residents than in doctors, p=0.006. The prevalence of emotional exhaustion was 44% for residents and 23% in doctors, p<0.001. The level of depersonalization was 51% and 46%, respectively, p=0.004, these had significant differences according to the working conditions. The risk of presenting severe psychosomatic manifestations was 3.5 times in those who had a high stress level (CI: 2.45 to 5.33). There were three times more risk for severity of symptoms in who perceived supervision (CI: 1.49 to 2.9) and excessive workload (CI: 2.06 to 4.11). The risk of burnout was twice for those who reported excessive workload and for those who performed guards and attend more than 20 patients per day. These differences were maintained by adjusting them by category on the job.

Discussion We found significant differences in the levels of stress, burnout and severity of symptoms according to the category and working conditions between residents and doctors attached.

Methods An extensive review and analysis of literature was conducted to design the protocols to intervene the PF and their effects. Based on this information and considering the country’s needs, the general protocols were designed and subsequently the specific protocols for intervention in different economic activities and their effects. Several sessions with experts and various stakeholders to discuss get feedback on the protocols were held.

Results In total, 13 protocols were designed:

- A general protocol with 34 intervention actions aimed at promoting protective PF and promotion of health.
- Specific protocols for psychosocial intervention by priority economic sectors (6).
- Specific intervention protocols (6) for the most important effects of psychosocial risk factors in the Colombian working population.
- General Technical Guide with complete procedures for the intervention.

Discussion Psychosocial intervention in the field of the workers’ health is a necessity and its development involves combining actions focused both on the individual and the organisation. Colombia has been acknowledged in the Latin American region for issuing and adopting public policies related to providing care to psychosocial factors at the workplace, and also for developing technical tools for assessing psychosocial risk factors, and to determine the origin of stress-related diseases.

Intervention protocols help employers and workers progress significantly in improving working conditions, and they also support issuing public policies to enforce their mandatory application.