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Employment and Mental Illness

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1. Introduction

It is a surprising in some ways that the interaction between employment and mental health or illness has not been subject to greater scrutiny, considering the amount of time the average person spends at work in his lifetime and the risks to mental health that the working environment provides. Probably the stigma of mental illness from the point of view of the employee, and the financial concerns about liability from the point of view of the employer, link together to hinder the exploration of the topic. Nevertheless, contemporary views of health promotion (WHO, 1986) and the Social Determinants of Health (CSDH, 2011)) recognise the impact of employment on health and mental health and various strategies like Health Promoting Workplaces suggest ways of ameliorating the risks and improving employee health overall. It is however necessary to consider a wide definition of employee health to encompass (a) the health of individuals who perform work for a living, (b) the average forty year period of the life span in which employees are in the work environment, (c) the traditional concerns of work related injury but is not restricted to this, and (d) the health promotion aims of quality of life or state of optimum health and striving to reach one's potential. This chapter explores employment and mental illness with this definition of employee health in mind. The main discussion areas are: employment and its link to the burden of mental illness, risks within contemporary employment, and social relationships in the workplace. The key points that will be made are that employment must be considered in the genesis and treatment strategies of mental illness, and that dialogue about mental illness will need to play a greater part in the employer-employee master narrative.

2. Employee health

Employee health is important for the social and economic benefits that add materially to individual and national well being. Health is bound closely, but in a complex way, to work because there is a clear relationship between income derived from work and incidence and prevalence of specific diseases and injuries (Ziglio 2000:34).

The public health policies concerning employee health are developed from collaboration between governments and business and many disciplines are involved in investigating employee health. From the *Research Fields, Courses, and Disciplines Classifications Codes* of the Australian Research Council (2004), some of the disciplines involved researching employee health and the subjects that flow from them include:

- Public health and health services
  - Health Promotion
  - Environmental and Occupational Health and Safety
- Business and Management
  - Organisational Planning and Management
- Psychology
  - Industrial and Organisational Psychology
- Engineering and Technology
  - Safety and Quality

These disciplines have different but legitimate, perspectives on employee health which influence public health policies concerning employee health and also influence the theories about occupational illness (Bohle & Quinlan 2000:66). Nevertheless, none of these individual disciplines has solved the difficulties that give rise to these policies (Quinlan 1993b:18). Taking a new approach, therefore, this research is interdisciplinary. The *immediate discipline* of this research is Health Promotion in the Workplace. Work and health, according to Schabracq, Winnubst and Cooper (1996:xiv) exist in an interdisciplinary arena, therefore the research problem is related to the parent disciplines of Public Health and Health Services, Business and Management, Psychology and Engineering and Technology. Although interdisciplinary work usually involves argument with established disciplines, this work provides productive tension to supplement and complement existing knowledge.

Over the last hundred years, theories of the causes of occupational illness have relied heavily on the evolving viewpoints of particular disciplines, for example engineering, psychology and sociology (Bohle & Quinlan 2000:66). Hale and Hovden (1998:129–131) describe a progression in the theories of occupational illness causation, extending from the early industrial period before World War I with its engineering and technical focus, through a human factors approach, to the current preoccupation with management systems. Although a comprehensive approach to employee health has developed, the complex system dynamics existing in the real workplace often mean that implementation of that approach is less than ideal (Bohle & Quinlan 2000:115–119). Hopkins (2000), in his book, *Lessons from Longford – The Esso Gas Plant Explosion* illustrates this point well. Hopkins investigates the 1999 disaster which killed two workers and cut the gas supply of the state of Victoria for two weeks. Hopkins (2000:120–124) locates the network of causes of the disaster in five levels: physical; organisational; company; government/regulation; and social, in decreasing order of proximity from the accident. In this chain of causation there was an 'absence of mindfulness' (2000:139–151) about interpreting weak signals of malfunction that existed in each of these levels. The implementation of a comprehensive approach to safety and therefore employee health is shown to be ineffective.

The two major workplace health policy responses in Australia are the Workers' Compensation system and the Occupational Health and Safety system. The Australian compensation model is workplace based and provides part of the 'the wage earner's welfare state' (Castles 1989:21). Other public and organisational policies in Australia also influence employee health, for example, Anti-discrimination and Equity legislation, Enterprise Bargaining Agreements, and Wellness programs.

Some countries have a national scheme that covers all accidents and is integrated into the social security system (Aarts & De Jong 1992; Industry Commission 1994). The performance of these approaches, whether workplace-based or integrated, is influenced more by the

social control operating in institutions, organisations and groups, rather than simply in the structure of these systems (Industry Commission 1994, 1995).

The complexities and conflict that arise between multiple stakeholders with their divergent needs of workplace health policies are succinctly summarised by Johnstone (1997:544) when he wrote about Workers' Compensation policy:

> Compensation policy assumes the characteristics of a kind of morality play in a capitalist industrial society such as Australia. Interest lies not simply in the financial costs and benefits of the compensation scheme, but also in the impact of the scheme on a variety of fragile and subtle concerns such as the maintenance of work incentives, the authority of employment relations, the allocation of blame for disablement, the promotion of accident deterrence, the preservation of professional autonomy, and the acknowledgment of worker rights.

Many authors report that these workplace health policy structures fail because the benefits are too few and the costs are too high. Foley, Gale and Gavenlock (1995:171), in reviewing the costs of work-related injury and disease, found that 'there was ample scope for improvement'. Until the Kerr Report in 1996, occupationally-related mortality was seriously underreported because occupational exposures to hazardous substances and subsequent deaths were not previously regarded as work-related (Kerr et al. 1996). Pearse and Refshauge (1987:635) refer to the 'unacceptably high levels of fatalities, occupational injuries and ill health'. Mayhew and Peterson (1999b:1) support their opinion that 'prevention efforts of recent years have failed' by referring to the 2900 work-related deaths each year and the costs to Australia of work-related injury of around 5% of the Gross Domestic Product (GDP) or at least twenty billion dollars. By comparison, in 1998 there were 2030 road fatalities in Australia (WorkCover 2002a). The schemes must meet their financial obligations to supply medical treatment and lost wages to employees and are constantly under review in an attempt to fulfill these requirements. The sheer size of the financial costs involved in managing work-related injury and illness means that Workers' Compensation insurance is the second largest area of private insurance after motor vehicle insurance (Bohle & Quinlan 2000:342).

The Australian workplace has undergone changes in the last twenty years. There are increased demands from globalisation of the economy and the rapid development of communication technology. Under the pressures of economic rationalism, the workforce has been and is affected by the decentralisation of industrial relations and an almost complete reliance on enterprise bargaining for wage increases (Crittall 1995:587–593; Horstman 1999:325–341). Economic rationalism allows the free market and its competitive forces to decide economic and social priorities. Although enterprise bargaining affects critical issues like hours of work, patterns of labour, new technology, multi-skilling and piece-rate payment, Crittal's (1995:587) research found that occupational health and safety issues are largely ignored in the enterprise bargaining process. These changes have moved employee health even further from industrial negotiations (Creighton & Gunningham 1985; Quinlan 1993a:140–169).

These workplace changes have meant the decline in full-time employment and a corresponding expansion of 'precarious' employment (Quinlan & Mayhew 1999:491), that is, an increase in the use of shiftwork/nightwork, telecommuting, home-based work, part-time, multiple job holding, temporary employment and contract employment. Fragmentation of internal labour markets is an international trend according to Rubery (1999:116–137). Quinlan and Mayhew (1999:491–493) state the expansion of 'precarious' employment and

the changing nature of work affect the patterns of workplace injury and disease and threaten to undermine existing regulatory regimes. As a result, workers' inputs into workplace health policy have been further reduced. Workers and their unions do not participate in the numerous inquiries into these schemes to the same degree that government officials, technical experts, lawyers and medical practitioners do (Industry Commission 1994, 1995) and at the workplace the formal requirements for employee participation through risk management 'overstate worker influence' (Per Oystein Saksvik & Quinlan 2003:37).

Although the concept of work environment was previously well-defined by its physicality (Allvin & Aronsson 2003:109), changes in work practices have expanded the concept to take account of the psychosocial environment. Problems in the psychosocial environment, for example, personnel problems, *stress*, *burnout*, difficulties in co-operating and harassment, involve the individual worker's ability to cope with work and his/her fellow workers. The expansion of the concept is associated increased recognition that the workplaces are politicised and there is increased complexity regarding employers' responsibilities (Allvin & Aronsson 2003:99–111).

There are changing views about health in contemporary society (Grbich 1996, George & Davis 1998) and these views do not rely only on the biomedical model of orthodox Western medicine in which health is viewed as the individual's responsibility; is defined as the absence of illness (Holmes, Hughes & Julian 2003:250); and is driven by the interests of corporations (Lax 2002:519). The main challenge to the biomedical view of health is its ineffectiveness in the context of escalating costs of health care (Nettleton 1995:5-8). Changing views of health incorporate the following: the consumers' perspective of health; epidemiological studies of health inequalities that show the rich enjoy better health than the poor (Holmes, Hughes & Julian 2003:278); and sociological studies about health and illness as socially constructed phenomena (Dembe 1996, 1999; Illich 1977; Marmot 1996; Navarro 1978). This has contributed to a broader and more ecological view of health than the biomedical model alone envisions (Murray 2001:220).

A multi-dimensional view of health is now considered to have social, mental, spiritual, emotional and physical elements (Cribbs & Dines 1993). This view of health is reflected in documents like the Ottawa Charter for Health Promotion (WHO 1986). Health promotion according to the Charter is:

> the process of enabling people to increase control over, and improve their health. To reach a state of complete physical, mental and social well being, an individual or group must be able to identify and realise aspirations, to satisfy needs and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasising social and personal resources, as well as physical capacities.

The Charter also recognises that the organisation of work should help create a healthy society. In creating supportive environments at work, workplace health promotion changes from a singular focus on individual behaviour to 'recognition of the broader social, environmental and economic determinants of health' (O'Connor-Fleming & Parker 2001:231).

The multi-dimensional view of health has not yet penetrated far into the regulatory regimes that influence employee health. In Australia, as in the United Kingdom, there is an historical and legislative separation of health services and prevention strategies in the general

community as well as for employees. Wilkinson (2001:152) describes this process in the workplace with health promotion and occupational health and safety operating in isolation from each other and having different intervention targets, personnel and methods.

There has been a clear line of development with the notion of workplace impacting on health since the WHO strategy of *Health for All* in 1980 and the 1986 Ottawa Charter for Health Promotion. Subsequent milestone health promotion documents, for example, Sundsvall Statement 1992, Jakarta Declaration 1997 ratified and refined the idea of 'settings' for health. A setting is a 'place or social context in which people engage in daily activities in which environmental, organizational, and personal factors interact to affect health and wellbeing' (Health Promotion Glossary, 1988). However, the workplace as a setting for health campaigns infringes on the free enterprise philosophy of neoliberalism, marketplace practices, and the business owners' prerogatives. Business and governments control workplace policy with employees being subordinate to other stakeholders. This is a problem and I will discuss why it is a problem now. The 'settings' approach in the Ottawa Charter recognises that the social, psychological and physical contexts in which people live and work shape their opportunities and choices in relation to health. This approach has been applied to employee health in a variety of workplaces settings including universities (Dooris 2001:58).

Current workplace health policies develop out of a certain political economy. Considine (1991:7) defines this political economy as the landscape in which the principal actors move. This landscape is made up of policy environment that deals with economic and organisational relationships and government authority. Throughout the history of Workers Compensation and Occupational Health and Safety legislation there has been resistance to workers' claims and opinions. This echoes the adversarial approach to all other employer/employees affairs. This present research addresses an imbalance that has existed in who determines the shape of those policies. Giddens (1979:5) makes the point that people can influence the social structures in which they live.

3. Employment and ill health is a neglected reality

3.1 Legislation is not entirely adequate

Much of the more recent health promotion literature and public health literature has an awareness of collective rather than just individual responsibility for health, hence the notion in the Ottawa Charter of 'strengthening supportive environments'. Although it can be argued that there is legislation to protect employees, its collective contribution to individual health is not entirely adequate. For example, the pragmatic political process involving governments, business and professions ensures that workplace health policy is subjected to myths of crisis over compensation funding obligations, but in essence, harm to workers may not be reduced (Mayhew & Peterson, 1999a:2). The ability of individual workers to look after their health is compromised by their lack of power in a system that does not optimise the potential synergies between individual and collective action. Workplace governance prioritises organisational production over employee welfare and the workers do not have power and/or knowledge to control risks in the work environment (Ziglio, 1991:69).

3.2 Complex organisational experiences and dimensions of health and ill health

When taking a limited individualist's approach to health it follows that if the workplace is unsatisfactory them the employee should leave. In reality work is not that simple. Some

workers respond to negative organisational experiences by leaving, but according to Australian workforce statistics (ABS, 2000:1) about stability of workers, they are more likely to stay at work and respond with poor service, difficult working relationships, poor quality work, lack of innovation, poor decision making, and low productivity. Williams and Cooper (1999:9) refer to this sub optimal performance as the 'hidden health issue' for organisations, whereas, sickness absence and staff turnover are the 'visible' and more obvious signs of poor health and well being. These two factors, that is, the performance of workers, and the stability of the workforce, mean that the workers' responses to organisational experiences may be complex and attenuated, and impact on the organisation's functioning in diverse ways.

Terkel's view of work (1972:xi) captures the chronic nature of the work situation that is in stark contrast to the simplistic assumptions that suggest that a worker can move to another job if s/he is not happy at work:

> Work by its very nature is about violence to the spirit as well as the body. It is about ulcers as well as accidents, about shouting matches as well as fist fights, about nervous breakdowns as well as kicking the dog around. It is above all (or beneath all), about daily humiliations. To survive the day is triumph for the walking wounded among the great many of us.

Terkel's words bring home the chronicity of workplace stress, rather than the novelty and intensity of acute stress that disrupts goal directed behaviour and is of relatively short duration. Sometimes, no single source of chronic stress may seem to be of consequence but the combined or cumulative effects of these stressors can lead to poor performance over time, reduced well being, health problems and decreased ability to respond effectively to acute stress demands (Driskell & Salas, 1996:7).

The complex nature of workers' responses to organisational experiences and the dimensions of health and ill health over the usual forty-year period of the lifespan in employment are very important to employees and employers. The health effects and the productivity effects involved provide strong justification for researching this area.

3.3 The health of workers is a measure of how the benefits of society are shared

The consequences of workplace health policies challenge the moral stance in the market justice/social justice divide. It argues for the utilitarian view, as opposed to the Rawlsian view (Rawls 1978; Weimer & Vining, 1999:135–137). The utilitarian view is one approach to public policy in which the expected outcomes are distributed in democratic and egalitarian ways to all participants. The Rawlsian view on the other hand would distribute the greatest benefits to the least advantaged in the community. The utilitarian view of public policy does not guarantee minimal allocation to individuals and the Rawlsian view does not provide incentives for those who create wealth.

Governments must walk the line between developing and implementing policies that provide incentives to business yet at the same time meet the needs of their least advantaged and least powerful constituents, the workers. This work will document the opinions of workers and therefore assist governments in their decision making about the distributional rationale.

3.4 Sometimes experts' opinions do not acknowledge social reality

Although the state, employers, unions the professions and experts design and implement policy and structures for employees' wellbeing workplace health policies are not a contained

and successful program. Unfortunately, the numbers of deaths that occur in Australian workplaces indicate a different reality (Mayhew & Peterson, 1999:6). In the manner of Wildavsky (1979:3), who suggests speaking out clearly about social problems, this work aims to seek workers' 'truths' and to deliver the findings about those truths in a way that will influence the political economy of policies that bear on employee health.
It is the nature of truth, according to Lupton (1995:160–161), to be 'transitory and political, and the position of subjects to be inevitably fragmentary and contradictory' however, workers' truth is 'one of the varieties of truth' enmeshed in discursive practices of the workplace. Therefore, when this truth is presented it may redress the imbalance that currently exists in the conventional perspectives of employee health.

4. Employment and the burden of illness

Much of the literature on occupational health and safety has a technical edge that addresses the physical aspects of risks and the physical aspects of injury. Nevertheless, the rate of injury is impressive. Statistical data is used extensively by government authorities, like WorkCover (1997–1998), to provide a basis for the 'national scorecard' in managing employee health. Aggregate data do not give an adequate portrayal of any social problem when considered by themselves, because the reader is not drawn into the human story embedded within the quantitative data. Not only is the personal side of the scorecard lost, there are shortcomings in statistic data itself. Mandryk et al. (2001:359) point out that the data often underestimates the problem, and there is a lack of information on causes of injuries and a lack of information on the relationship between injuries and outcomes for the injured worker.
Nevertheless, the following statistics that deal with injuries and illnesses in the Australian workforce have been compiled from a number of authors who comment on the extent of workplace injury and disease. The sources for this data are: Industry Commission 1995:Vol 1, Pxix, Vol 11, P19–33; Driscoll & Mayhew 1999:28–51; Driscoll et al. 2001:45–66; Ellis 2001:xxiv-xxv; Emmett 1999; Foley, Gale & Gavenlock 1995; Foley 1997; Johnstone 1997:13–14; Kerr et al. 1996; Mandryk et al. 2001: 349–361; Mayhew & Peterson 1999b:1–13; Stiller, Sargaison & Mitchell 1998:25.
Mortality:

- there are 2900 deaths each year as a result of work-related injury and illness—
  a significant number of these deaths are due to occupational cancers from exposure to hazardous material (Mayhew & Peterson 1999:6)
- there are 603 work-related traumatic deaths per year (Driscoll et al. 2001:45).

Injury:

- up to 650,000 workers, that is, one in twelve workers, suffer injury or illness from work
- there is a trend towards an increase of serious injuries causing permanent disability (Stiller, Sargaison & Mitchell 1998:25)

Occupational disease:

- the incidence of occupational disease is likely to rise related to the recognition of several factors:
  - chronicity (which refers to the long length of exposure, e.g. noise-induced hearing loss and musculo-skeletal disorders)
  - latency (which refers to the length of time from exposure to appearance of the disease e.g. asbestosis occurs about twenty years after exposure)
  - the multifactorial nature of illness (Ellis 2001:xxiv-xxv)

    - the significant underestimation of the level of occupational injury and disease is addressed (Bohle & Quinlan 2000:35–40)
- work-related health problems affect people after retirement
    - up to 300,000 persons over the age of sixty-five are estimated to be suffering from work-related health problems

Costs:

- direct Workers' Compensation costs constitute 1.5% of GNP or 5% of GDP, at least twenty billion dollars (Industry Commission 1995:99)
- workers compensation costs are 20% of total health care costs
- of the total costs of workplace injury and disease:
    - 30% are borne by the injured worker and their families
    - 40% are borne by the employers in lost productivity
    - 30% are borne by the community in social security payments and health subsidies (Industry Commission 1995:102)

Equity:

- Workers' Compensation figures seriously understate the extent of occupational disease (Foley, Gale & Gavenlock 1995:171)
- some groups, (for example, the self-employed), are not entitled to make Workers' Compensation claims for work-related injury and disease
- some groups are reluctant to make claims, particularly workers from non-English speaking backgrounds, and those in precarious employment (Bohle & Quinlan 2000:35–46).

Dr. Yossi Berger (1999:52), Head of the Occupational Health and Safety unit of the Australian Workers Union, states that what matters at work is the workers 'expressed views about occupational reality'. He describes these expressed views as the 'mumbling environment' to emphasise that workers are living and experiencing this harm at work but no one is listening to them.

In the same vein, Wilkinson expands this view of the social reality of employee health when she speaks about employee sickness not being related just to technical exposures of harmful agents, but more related to how people treat each other in the work environment. She states that: '[Employee injury or ill health] is not simply a biological process triggered by chemicals, or the fabric of the organisation. It is stimulated and perpetuated by its people through group processes, action and behaviour at every level of the organisation' (Wilkinson 2001:24).

Bohle and Quinlan (1991:92) emphasise that harm to employees is usually not sudden and unexpected. On the contrary, there is a definite probability of harm. The reality for workers is that there is a probability of work-related injury and illness because the patterns of injuries between occupational and industry groups are consistent over time. In 2000, Bohle and Quinlan (2000:46) said that 'work-related injuries and illnesses constitute statistical probabilities' and this undermines any attempt to portray them and illnesses as 'unexpected or aberrant events'. The familiarity of workers with injury and work-related disease has contributed to their 'deep-seated cynicism and skepticism' at work about the workplace being safe for them (Berger 1999:58).

4.1 Employment and the burden of mental illness

The Employment Conditions Knowledge Network (EMCONET) delivered its final report to the Commission of Social Determinants of Health in 2007 on the neglected global reality of

employment conditions and health inequalities. The Report takes the view that health inequalities derive from social injustice that has its origins in the distribution of resources in society that, in turn is determined by political decisions. From an historical point of view the Medical professions link to business and free enterprise has been slow to relate specific work conditions to occupational illness and generally policy development is dominated by the interests of business and governments with the contribution of employees being subordinate to these other stakeholders (Per Oystein Saksvik & Quinlan 2003:37).

Employment relations refer to the relationship between the employer and the worker who is hired to sell or produce goods through his labour and he is paid wages. Employment relations in the formal economy of developed nations may be contractual, but in the informal economy of many developing countries employment relations are personal agreements in which the power differential between employer and employee has not protection under law or by employee unionisation. Employment conditions refer to the types of employment arrangements that exist between employer and employee. Some are, unemployment, precarious employment, informal employment and informal jobs, child labour, and slavery/bonded labour. Working conditions deal with the tasks performed by workers, the way work is organised, the physical and chemical work environment, ergonomics, the psychosocial work environment, and the technology used.

Table 1. Definitions of three interrelated concepts

This Report takes a broader view beyond individual hazards involved in working conditions to consider the 'political, cultural and economic context to provide a comprehensive account of the current international situation of labour markets and types of employment conditions' (EMCONET, 2007 p. 14).

The three interconnected concepts of employment relations, employment conditions and work conditions are taken together in this report because the first two concepts are key social determinants in shaping health inequalities. The three provide a much better understanding of burden of illness that employment causes due to inequalities.

Fair employment is a concept that incorporates factors of employment relations, employment conditions and working conditions that promote workers' good health and well being. These factors would be:

- Freedom from coercion
- Job security
- Fair income
- Job protection that includes social security
- Respect and dignity at work
- Workplace participation
- Enrichment and lack of alienation

The Report's macro-theoretical framework of employment relations and health inequalities relies heavily on the framework for explaining social and economic disease patterns developed by Dahlgren and Whitehead in 1991 and reproduced by Marmot (1996:66). This framework emphasises the primacy of age, sex and hereditary factors. The clinical approach

to disease focuses on these factors and individual behaviour. Research into prevention has generally been concerned with individual risk factors for disease, for example smoking and drinking. Living and working, social and community influences, and general socio-economic, cultural and environmental conditions have attracted less research. Figure 1 shows the relationships that exist through power differentials in employment relations, through labour market and social welfare policies that are played out in employment conditions and work conditions causing health inequalities.

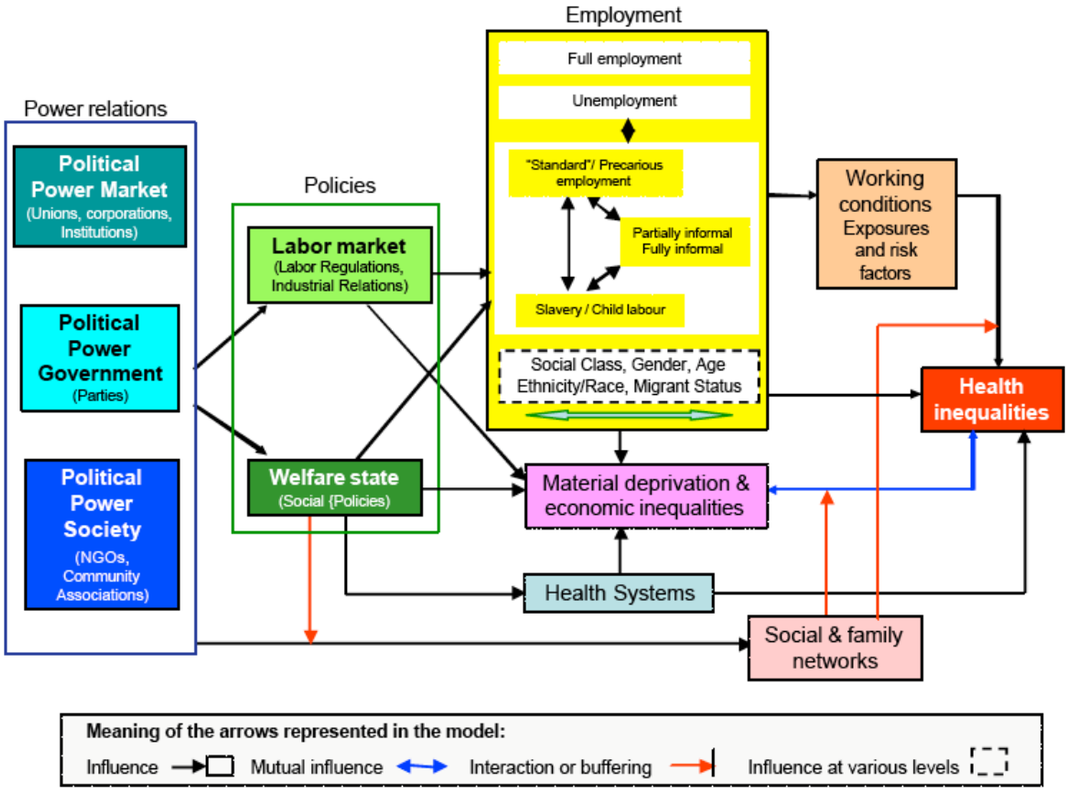


Fig. 1. Macro-theoretical framework of employment relations and health inequalities
Source: EMCONET (2007, p. 31).

This macro-theoretical framework shows the interconnected nature of the political processes that influence employee health.

At the micro-theoretical level the Report provides a framework of employment conditions and health inequalities. At this micro level the resulting working conditions shape health behaviours, provoke physio-pathological changes and determine psychsocial factors that influence mental wellbeing.

The effects of many of these factors in Figure 1 and 2 and compounded in real world situation. For example material deprivation and economic inequalities is characterised by poor nutrition, poverty, poor housing and low income, and they develop from lack of welfare policies in many developing countries and employment conditions where there is little social justice, for example those in the informal economy. Material deprivation and economic inequalities have an 'effect on chronic diseases and mental health via severe psychological factors life-style behaviours ad physio-pathological changes' EMCONET 2007, p. 33).

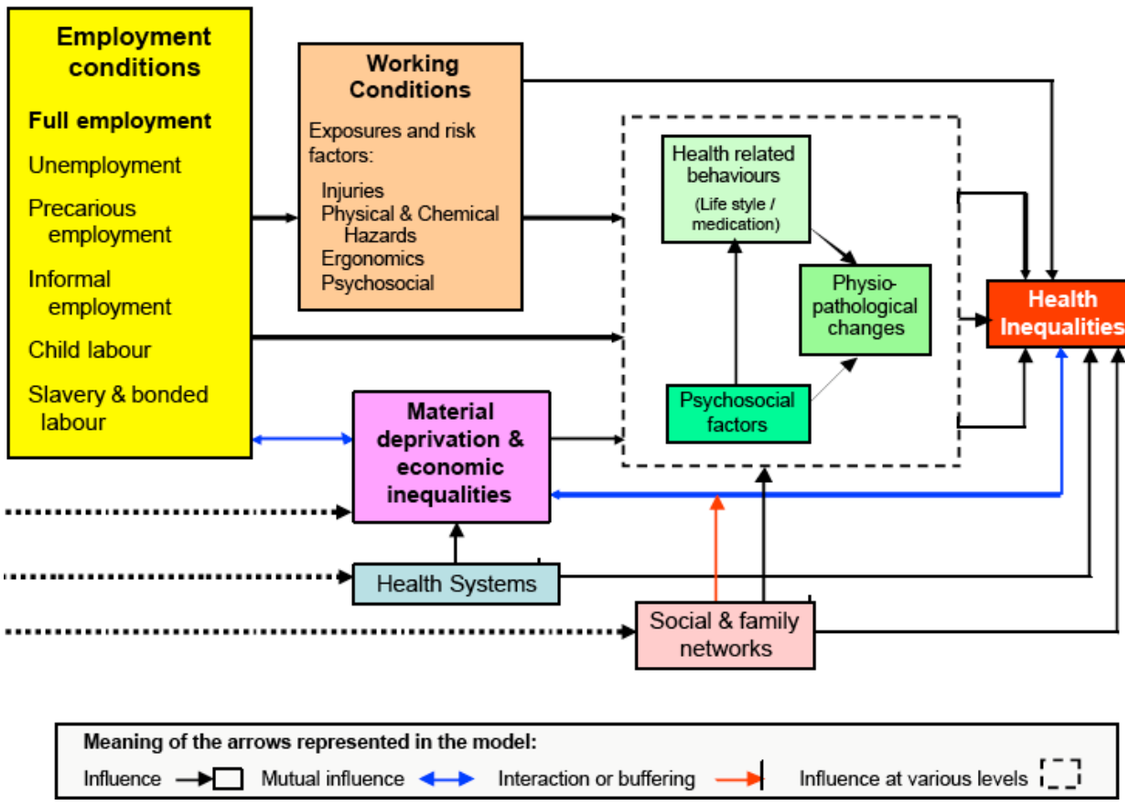


Fig. 2. Micro-theoretical framework of employment conditions and health inequalities
Source: EMCONET (2007, p. 32).

There is much in the literature on psychosocial theories about the importance of social stratification or where one stands in relation to others, and its effect on health and mental wellbeing. Marmot (1996:63) uses Dahlgren and Whitehead's framework to describe his significant findings about the social patterns of disease. Marmot and a group of researchers known as the Whitehall team have advanced understanding in this area, particularly in relation to the patterning of disease in the social hierarchy at work. The Whitehall research involves a longitudinal study of 10,308 male and female British civil servants and was started in 1985. Marmot and Theorell (1988:659–673) report there is a steep inverse association between grade of employment and mortality from coronary heart disease and a range of other causes. In Whitehall II, Stansfield, Head and Marmot (2000) use the General Health Questionnaire and the SF-36, as well as other measures, and sickness absence of both short spells (1–7 days) and long spells (8 days or more). Stansfield, Head and Marmot's findings show that low decision latitude, high job demands, low social support, and the combination of high effort and low rewards are associated with poor mental health and poor health functioning. Their results suggest that intervention at the level of work design, organisation and management might reduce morbidity in working populations.

Marmot's work in the Whitehall I and Whitehall II studies show a social gradient in mortality and morbidity. Morbidity and mortality rates are higher for those at the bottom of the social hierarchy than at the top. Van Rossum et al. (2000:178) also report from the Whitehall II study to show that the mortality differentials persist at older ages for almost all causes of death in this 'white collar' cohort. The mortality rates are higher in the lowest

grades of employment. More specifically, the workers at each point in the hierarchy have worse health than those above them and better health than those of lower rank. In effect, this indicates that social, cultural, working and economic factors, have a strong influence on biology. This work emphasises the social and biological pathways that underlie the social patterning of disease (Marmot 1996, 1998:403; Marmot Shipley & Rose 1984).

In the United Kingdom, the Acheson Report (1998:33) into Inequalities in Health is adamant that policy emphasis should be made 'upstream' from the individual (i.e. targeting the factors in the outer boxes of the Dahlgren and Whitehead framework) to the social and economic structures if any worthwhile changes in health inequalities are to be made, because comparatively little is accomplished by addressing 'downstream' influences of individual lifestyle, age, sex, and hereditary factors (i.e. the inner boxes of the framework).

Results from the Australian Health Promotion Survey of 1994 reported by Harris Sainsbury and Nutbeam (1999) support the differentials in health status and exposure to risk that are found in the Whitehall studies. Lower education levels, unemployment rather than employment status, areas of residence of socio-economic disadvantage, living alone, and rural compared to urban residence are associated with poorer health status. On the other hand belonging to a particular immigrant group was not associated with a difference of health status (Harris Sainsbury & Nutbeam 1999:19–31). These researchers find that structural factors, that is, poor quality of social and economic environments account for most of the health status differentials observed. In Australia it is a problem of relative disadvantage rather than absolute lack of resources for these groups that experience health inequities. This type of research is the background for Petersen and Lupton's (1996) opinions about the diverse causal pathways that influence disease patterns in society rather than the simplistic interpretation of Dahlgren and Whitehead's framework that implies genetics, age and sex are the sole or primary determinants of health status.

In the literature on work and health three theories are so frequently mentioned that they are referred to here: • Demand-Control-Support (Karasek 1979) • Person–Environment Fit (Caplan 1983) • Effort-Reward (Siegrist 1998:190–204, Siegrist & Theorell 2006). Wilkinson's list of social determinants of health in the workplace include: • Demand-control (Karasek 1979)1 • Support with work processes (Cohen & Syme 1985; Winnubst & Schabracq 1996:87–104) • Stimulation (Edwards, Caplan & Van Harrison 1998:28–67) • Effort –reward (Siegrist's 1998:190–204) • Ability to unwind (Gutek, Repetti & Silver 1988:141–174). • Participation (Holbeche 1998:30–35)

Table 2. Psychosocial theories of work and health

These three theories help to explain the action of the psychosocial factors that affect the individual worker's health in the work environment. Briefly, the Demand-Control-Support theory relates the demands placed on workers with the degree of control that they have over those demands and the support that they perceive is offered to them in doing the work. The Person-Environment Fit describes the satisfaction that is derived from the worker being

appropriately skilled and adjusted to the work situation. The Effort-Reward theory links the inducements or rewards that the organisation offers to the effort that the worker has to put into work.

Wilkinson (2001) in the preface to her book, Fundamentals of Health at Work refers to the 'neglected social context of workplaces', and within the text provides a list of the social determinants of health in the workplace and the theories behind some of those concepts (2001:9–10). The sources of these social determinants vary in the work environment. Some relate to the job itself, to the worker's role in the organisation, to the worker's aspirations and career development, to relationships at work, and/or to the organisational structure or culture of the workplace (Sutherland & Cooper 1988:3–31). A modified form of Wilkinson's list includes the following concepts:

- Demand-Control: The Demand-Control-Support model was first developed by Karasek. (Karasek 1979; Karasek & Theorell 1990; Theorell 1998). Demand incorporates the concept of quantitative work overload or underload, that is, too many or too few tasks, whereas qualitative work overload or underload refers to tasks that the worker does not feel capable of doing. In essence, constraints on decision making or decision latitude, rather than decision making itself are a major problem. Decision latitude or control, or the degree of autonomy that a worker has in performing work tasks, is a central component of this model and has been found to be closely related to job satisfaction. This affects not only executives but also workers in lower status jobs with little freedom to make decisions. The most adverse reactions of physical strain, anxiety and depression can occur when the psychological demands of the job are high and the workers decisions latitude in the task is low (Karasek 1989; Karasek & Theorell 1990). Lack of control over working systems has been found to lead to stress and predisposes to cardio-vascular disease (Marmot et al. 1998). The ability to plan work tasks involves several aspects of control in the work environment. Role conflict, ambiguity, overplanning and work methods, all of which mean that the employee has a lack of control, predispose the individual to stress (Sutherland & Cooper 1988:3–31). Role conflict occurs when compliance with one set of role pressures makes compliance with another set of role pressures impossible. Role ambiguity refers to inadequate or misleading information about how a person is supposed to do the job (Ross & Altmanier 1994).
- Support with work processes: The support component of Karasek's model of Demand–Control–Support refers to optimal matching of the amount and type of support appropriate to a work situation with its particular demands, and the amount of decision latitude available to the worker in that situation. There are different types of supports provided in the workplace through relationships with peers and supervisors. These human ties are important in mental and physical health (Cohen & Syme 1985; Winnubst & Schabracq 1996:87–104).
- Stimulation: De-skilling and fragmentation of tasks has been linked to stress. The person must 'fit' into the work environment (Edwards, Caplan & Van Harrison 1998:28–67). This fit in the Person–Environment Fit model refers to the match between what the worker expects and what the job actually requires. As well as expectations, the skill of the worker fuses with what the job requires (Cox 1978). The person-in-environment psychology has been extended by Wapner and Demick (2000:27) to be holistic, developmental and systems orientated.

- Effort–Reward: Siegrist's Effort–Reward model (1998:190–204) proposes that there is an appropriate balance between the rewards that the worker expects and the efforts needed to obtain those rewards. Workers act formally and informally to change their work environment so that inequities between what they offer and what they get, and what they perceive other workers receive in relation to what they contribute, are removed. Using different terminology but dealing with similar concepts as the Person–Environment fit and Effort–Reward, Williams (1993) refers to the congruent person and organisation. Congruency is achieved by merging belief systems, values, plans and strategies so 'so that we can gracefully move through life being congruent and functional' (1993:165). Although Williams is casting his argument in terms of the ideal, there is no doubt some validity in the optimisation of enhancing employee personal strength and enhancing the creative potential of the organisation.
- Ability to unwind: To recover vitality through interpersonal relationships at work and through relationships and interests in the home domain is necessary because of the persistent requirements of work. The circular and reciprocal relationships between work and non-work or work and home domain are important because the balance in these linkages affects quality of life for the worker and his/her significant others (Gutek, Repetti & Silver 1988:141–174).
- Participation: Participation of employees in the work effort varies from optimal performance producing maximum productivity, to hostility that sabotages productivity. Holbeche (1998:30–35) found the more common response from employees experiencing poor work conditions was non-participation which meant holding back on human resources. The most extreme problem of this kind is called 'presenteeism', which occurs when employees come to work but contribute little to the work effort because they are distressed by their jobs or some aspect of the work environment (Schabracq, Winnubst & Cooper 2003:xv). Aronsson, Gustafsson and Dallner's study (2000:502) into 'sickness presenteeism' shows that members of occupational groups whose everyday tasks are to provide care, welfare services, teach or instruct have an increased risk of being at work when sick, which is itself a form of presenteeism.
- Emotional work: Performance of emotional work in the long-term, particularly in the caring professions and service industries, like teaching, can produce a 'burnout syndrome' that is characterised by mental exhaustion, cynicism and loss of commitment (Maslach 1982, 1998:68-85; Maslach & Jackson 1986:253–266).

5. Contemporary employment issues in developed and developing countries

The culture of a group is very influential for health. Culture is defined as:

a complex integrated system that includes knowledge, beliefs, skills, art, morals, law, customs, and other acquired habits and capabilities of the human being. (Murray, Zentner & Samiezade-Yard 2001:4).

A culture is both ideal, in that it aspires to certain values and health beliefs, and it is also manifest. The manifest culture is the expression of the way people think and behave. Within the dominant culture there are subcultures—groups of people within a larger culture, of the same age, socioeconomic level, occupation, or with the same goals, who have an identity of their own but are related to the total culture in certain ways. For example, regional culture refers to the local or regional manifestations of a larger culture (Murray & Zentner, 2001:5). In the same way, workgroups and organisations form subcultures of the larger societal

culture. Workgroups share industry and professional allegiances, and organisations develop cultures related to their founder, origins and evolutionary experiences. The health status of a workgroup derives much from the organisational culture and wider community culture to which the workers and organisation belong.

Cultures, however, are not static entities. They are subject to changes. For example, in Western modern society some of the cultural problem areas and trends that Murray, Zentner and Samiezade-Yard (2001:9) note include:

- need for more professional knowledge
- greater expectation of the public for services and quality of services
- more goods considered to be public goods
- lack of measurement to show what is actually needed, and thus where the money and resources should be directed
- short-term rather than long-term considerations in the business economy, health services and social service
- changing demography and more urban concentration
- increased life expectancy
- changing values with little understanding of the historical roots of the culture
- power struggles between groups.

From this list two unifying themes in contemporary cultural changes are individualism and economic rationalism and it is necessary to understand their impact on health and work (Murray, Zentner and Samiezade-Yard 2001:9). These themes are significant in the tertiary education industry because of their effect on the nature of educational services offered and the means of delivery of those services. Technology also shapes the educational workplace and other service industries through its impact services and service delivery.

5.1 Individualism

According to Naisbitt and Aburdene (1990:299) the doctrine of individual responsibility was a major cultural trend in the last decades of the 20th century. Individualism fosters a climate of 'independence', with freely choosing individuals who do not need to care about others individually or collectively. Notwithstanding the self reliance that individualism ostensibly creates, Naisbitt and Aburdene acknowledge that society as a whole gains by the action of individuals when they achieve in any area of human endeavour.

Cultures also vary in the degree to which they balance the interplay of collectivism and individualism. Strongly collective cultures are tightly bound and cohesive and expect unswerving loyalty, whereas individual cultures are those in which connections between people are loose and individuals are expected to look after themselves. Cultures that are collectively bound usually have power distance dimensions within them. Power distance is defined as 'the extent to which less powerful members of organisations expect and accept that power is distributed unequally' (Erez & Earley 1993:104). Culture influences both systems and individual behaviour and is influenced by them (Anthony 1994:2). The tension between individualism and collectivism, which is a cultural characteristic of the wider society and organisations and workplaces, is translated in the workplace through the concepts of personal social capital, social capital and community capacity. The development of organisations and workplaces and the health of individuals at work are interactional and the level of trust between employees, who are usually not related by family ties, impacts on their health.

5.2 Personal social capital, social capital and community capacity

At the personal level, social capital refers to strength of personal support networks and ability to access such support, as well as trust, mutual responsibility and effective collaboration (Putnam 2000:19–26). Social capital also operates at the level of society, in a set of complex interactions between community level characteristics, such as trust, participation and cooperation evident in values, norms and connections that allow people to work together for the common good. Trust operates at the micro level of the interaction between people and is regarded as the 'most valuable factor' in social capital (Berry & Rickwood 2000:36). Trust is most valuable to the social capital of an organisation because it allows people to support each other. Through trust employees are free to be open and to achieve their potential in life (Bruhn 2001:38).

Putnam (2000:19) clarified the differences between physical capital, human capital and social capital thus: physical capital refers to physical objects; human capital refers to properties of individuals; and social capital refers to connections among individuals, social networks and norms of reciprocity and trustworthiness that arise from them. This is not a romantic view of social capital (Baum 1999:195) or a costless way of making society and the economy work better (Wilkinson 2000:411), or a preference for psychosocial conditions over material conditions (Lynch et al. 2000:404). Navarro (2002:427) does not accept the use of the term 'social capital' because, he states, Putnam does not consider power and politics as factors that affect an individual's ability to compete for resources but considers only participation and togetherness. A more balanced view however, sees social capital as strongly influenced by political, legal and corporate action rather than simply being individually determined (Lynch et al. 2002:407). Social capital can be fostered or not through the way social networks and supports are developed and encouraged by governments and organisations. Collective action to increase social capital can be a public strategy to overcome some socio-economic inequalities and improve health.

Social capital operates at two levels—bonds and bridges. Bonds refer to the strength of internal relationships in the group and bridges refer to the capacity of the group to connect to other societies (Kreuter & Lezin 2002: 239), whereas the concept 'community capacity' relates to the ability of the community to change constructively in relation to social and public health problems (Norton et al. 2002:194–227).

The dimension of individualism—collectivism existing in a particular workplace—is demonstrated by the social capital and community capacity that work teams and the organisation have at their disposal to cope with change. The social relationships involved determine health status and productivity. Therefore, the dimension of individualism—collectivism and the corresponding social capital and community capacity—are the group level constructs that operate in the work subculture and influence employee health.

5.3 Economic rationalism

A second unifying theme in the cultural changes effecting post-industrial society is economic rationalism. Economic rationalism is a form of ideological reasoning which took hold in the 1980s in Australia and is based on the notion that the free market is a much better arbiter of economic and other matters than are governments (Pusey 1991). Economic rationalism sees itself as a science largely devoid of social goals, and the language and logic of economics begins to dominate social policy. A corollary of such reasoning is a reduction in spending by the state on such things as education, health and social welfare, and a shift in providing these services to the private sector (Holmes, Hughes & Julian 2003:231).

Economic rationalism and capitalism sit more easily with profit making businesses. However, the provision of public goods by public institutions such as hospitals, universities and schools, is achieved nowadays by producing these public goods in a cost-conscious competitive environment with the same awareness of the 'tyranny of the bottom line' that profit driven organisations experience (Estes 1996).

The interplay between culture and economic theory has had an illustrious recorded history in the work of classical sociologists, as for example, in Marx's *The Economic and Philosophic Manuscripts of 1844* (Marx 1964; Tucker 1978) and continues in the work of Braverman (1974). In his book, *Economic Rationalism in Canberra*, Pusey (1991:10) points out that the priorities of economic rationalism are the economy, political order and then social order. Opposition to economic rationalism is seen as cultural resistance to a 'necessary condition' or as 'rancour against (post) modernity' (1991:21).

The challenge for the 21st century is the impact of these cultural trends and their underlying themes of individualism and economic rationalism on social capital. Economic life is pervaded by culture and depends on the moral bonds of trust (Bruhn 2001:5). In the business world trust is the unspoken, unwritten bond that is a prerequisite for the legal bond because it facilitates transactions.

5.4 Technology

Technology is part of modern life and shapes many cultural dimensions and operates as part of the socio-economic, cultural and environmental conditions (i.e. included within the outer layer of Dahlgren and Whitehead's framework of patterns of disease). Cairncross (2001) predicts a business and lifestyle revolution based on technological supremacy. In his book, *The Death of Distance* (2001), Cairncross discusses cultures and communication networks that will hold businesses together through technology rather than rigid management structures. Additionally, he believes the line between home and work will blur, with more work being performed at home. The social consequences of these changes and their impact on the health of employees have not been fully researched, according to Konradt, Schmook and Malecke (2000:90).

The view of culture as resistant and therefore 'bad' occurs frequently in writings on policy implementation at the national and organisational level of strategy development and implementation (Mintzberg & Quinn 1998). Nevertheless, culture is essentially the binding force that regiments those within the culture through its cohesive action. It defends the insiders by placing boundaries around them that distinguishes them from outsiders. Thus, rather than being resistant, culture is, according to Erez and Earley (1993:104), the moderator of change.

5.5 Socio-economic status

Several authors in Australia mention that social class not only determines values, attitudes and lifestyle, but also determines health (Bates & Linder-Pelz 1987:20–25; Harris, Sainsbury & Nutbeam 1999:16–35; Lupton & Najman 1995; Palmer & Short 1994:243; Russell & Schofield 1986:51–65; Short 1999: 90–95; Turrell 1995:113–135). For example, people with higher socio-economic levels, (i.e. those with good income, higher education, and full employment) experience better health and have medical insurance, use private medical facilities and often live longer. Graycar and Jamrozik, in their review of Australia's social policy, find that as far as employment benefits are concerned, men, higher income earners

and executives, administrators, professionals and sales personnel have considerable advantages over women, low income earners and lower grade occupations (1993:201). Using education as a marker for socio-economic status, Steenland, Henley and Thun (2002:11) report that life expectancy is shorter for the least versus the most educated in their 37-year follow up study of two million people in the American Cancer Society Cohort. Harris, Sainsbury and Nutbeam (1999:43) state that:

> It is generally accepted that the most powerful influence on differences in health across population groups is relative poverty and associated structural forces, which serve to increase and maintain the differences. One's position in society's economic hierarchy determines choices of health promoting activity directly through access to resources such as goods and services, and indirectly through social expectations and opportunities.

Those people who belong to lower socio-economic groups lack power in social and political relationships, and may be vulnerable to workplace bullying. Research on workplace bullying identify employees whose health is affected by that experience. The victims of bullying are often subordinated or discriminated against, marginalised or disenfranchised, and suffer mental health problems as a result of the bullying (Hoel, Rayner & Cooper 1999:195–231). Victims of bullying experience more illness and a lower quality of life overall, and there are more premature deaths among the group members than comparable groups. Individuals in the middle and upper socio-economic levels who lack power in workplace structures may also be vulnerable to workplace bullying.

5.6 Risk

Risk is a social construct that assumes great importance in health and work literature as a means of quantifying a potential health problem. Risk is defined as:

> the exposure to possible loss, injury or danger; the probability of occurrence of a particular event (Murray, Zentner & Samiezade-Yard 2001:53)
>
> a probability of an adverse outcome, or a factor that raises this probability (World Health Organization 2002:1).

Risk factors are characteristics associated with an increased probability of a particular event, usually an injury or illness occurring (Murray, Zentner & Samiezade-Yard 2001:53). Risk assessment is part of the process of weighing up health problems and trying to be effective and efficient with interventions to benefit the individual and community. The regulation of risk involves attempts to control risk by setting and enforcing behavioural and product standards.

Within the workplace in Australia, the assessment and control of health risks is the responsibility of management through Occupational Health and Safety legislation, but this self regulation is far from effective. In an effort to improve this, the Australian government has appointed Richard Johnstone and Neil Gunningham to the National Research Centre for OHS Regulation to initiate, encourage and support research into OHS regulation (Johnstone 2002:4).

According to the Australian Bureau of Statistics report on the *Social Trends for Health: Risk Factors among Adults* (2003), the risk factor responsible for the greatest disease burden in Australia is tobacco smoking. Another common risk is excessive alcohol consumption. Excess alcohol consumption is linked to some cancers, liver disease, pancreatitis, diabetes and epilepsy. Smoking and drinking together account for about 17% of all disease

(Australian Institute Health Welfare 2000:146–148). The risk factors of smoking and excessive alcohol intake have been studied extensively.

Beck's *Risk Society* (1992) offers fair warning about the deceptive simplicity of the concept of risk in modern society. According to Beck (1992:3) risk is an 'intellectual and political web' cast by modern industrial society, in terms of problems (or risks) for the individual. These risks for the individual are conveyed in scientific language that ignores social rationality. Risks seem to concentrate in society at the lower end of the socio-economic spectrum. For example, lower socio-economic groups or those who are less powerful consume more tobacco. Also in the workplace, the least well paid workers not only operate in more hazardous environments, their amenities (e.g. tea rooms, wash rooms, etc.) are usually more limited than workers who attract higher wages. Their opportunities to have a break from work and refresh themselves, as well as their opportunities to move to better work environments are also constrained. Beck (1992:35) makes the point that 'risks seem to strengthen, not abolish the class system', on the other hand [the] 'wealthy [i.e. those with high incomes, power and education] could purchase safety and freedom from risk'.

Lupton (1995:77–105), Nettleson (1996:37, 53) and Petersen and Lupton (1996:18–20) comment on the pervasiveness of risk in literature of health and lifestyles and the limited ability that people have to control the social circumstances of their lives. These authors agree with Beck that more advantaged people have more control over socio-economic, environmental, living and working conditions. Therefore concentrating on lifestyle factors only, rather than cultural and socio-economic factors, may contribute to increasing health inequalities because advantaged people will gain doubly—from their own power base to control external factors influencing their health, and societies renewed push to enhance better lifestyle choices.

5.7 Developing countries

Notwithstanding some relatively small dips, Western economies have achieved great prosperity since Industrialisation. However the developing countries have not been so fortunate. One of the difficulties has been the lack of rule of law upon which trade relies, and the lack of modernisation. It is wrong to say that there is global integration of trade but there is some regional integration. The high-income economies represent 11.5 per cent of the world's population and produces 74 per cent of total GDP, whereas East Asia and the Pacific produce less that 7 percent, and Latin America and the Caribbean only produce 5.4 per cent (EMCONET 2007, p. 35). This inequality means that workers in developing countries are generally poorer than they compatriots in developed countries.

In developing countries there are usually less social protection standards, and employment relations and employment conditions are informal and workers are not protected by International Labour Organisation standards (ILO) and unionisation. Although the agricultural sector is still important to many developing countries it is usually done in a low productivity manner. It is mainly a family concern producing enough for the annual needs of the family and very little extra if any, compared to high productivity and high technologically driven broad area productivity in the agricultural industry in North America. There is significant rural-urban migration in some developing countries as the young and the healthy go to urban areas to seek a better life. Rural depopulation occurs when numbers of working age people migrate from the countryside to earn more money in the city. They leave behind the old and the young. For the Less Economically Developed

Countries (LEDC) the problems that develop with the influx of these rural migrants into urban areas are shanty housing, lack of clean water, pollution, poverty, poor education, provision of health services and sewerage systems. If they get employment, the migrants usually work in the informal sector because of their lack of skills and education and are stuck with the 'dirty' jobs. Family relationships are under threat because of long-term separations for work, or overcrowding and poverty. Drugs, gangs and crime also flourish in the informal economy that survives with corruption at many levels.

In developing countries employment conditions in informal employment and informal jobs, child labour, and slavery/bonded labour are of major importance. Within informal employment there are few protections for workers such as regulations about minimal wages, hours of work, conditions of employment and occupational health and safety. Those who are least able to resist, children and women are heavily represented in those who are involved in forced labour. Throughout the world 317 million children aged between 5-17 years work and 218 are child labourers, and many, 126 million, are involved in hazardous work. The current estimate is that there are about 28 million salves and 5.7 million children in forced or bonded labour in the world (EMCONET 2007, 16). The children in forced labour suffer from the effects of the work environment, for example, cramped conditions, poor lighting, heavy lifting etc and also suffer from the lack of normal development process of childhood for example, family support, education, shelter and peer childhood relationships.

6. Recent research

6.1 Developing countries employment and health

There are two pieces of research that I have conducted recently that relate to the employment and health. The first was conducted with my colleague Dr Leigh Lehane in 2006. It was a small study in primary health care in rural Thailand: *Towards realising primary health care for the rural poor in Thailand: health policy in action,* and demonstrates the nature of health issues generally for the rural population but in particular it demonstrates the problems of employee health and the lack of awareness of the toxicity of pesticides in developing countries. Because of the small scale of this study the results can only be taken as indicative. This work was accepted for publication after having been peer reviewed but was withdrawn from publication by the editor because of its political nature.

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Introduction

In 2001 Thailand established Universal Health Coverage (UHC) to provide primary health care (PHC) through its network of 9,738 primary care units (PCUs) (sometimes also called health centres) to make health care accessible for uninsured Thais (including about 40 million rural people). UHC (known as the '30 Baht Scheme') meant that, for patients, the cost of medical and hospital treatment was 30 baht per episode of care (Wibulpolprasert 2002). In October 2006, General Surayud Chulanont, the current Prime Minister of Thailand and Head of the Interim Government, abolished the 30 baht fee and made the health care program free (The Nation, 2006).

PHC services in Thailand provide treatment for common illnesses and injuries, health promotion, disease prevention and control and rehabilitation. PHC refers to first contact,

continuous, comprehensive and coordinated care (Ministry of Public Health, 2001) (Starfield 1994).

PHC for Thailand's rural poor has been problematic because of a shortage of rural medical practitioners (Wibulpolprasert and Pengpaibon 2003) and challenges raised by recent epidemics, such as avian influenza, SARS and HIV/AIDS(Beaglehold 2004, World Health Organisation 2003).

The authors, comprising the research team, looked at what PHC was being done, and how well it was being done, by one rural PCU. The aim was to provide Thai stakeholders, among whom were executives, senior provincial health officers and academics, with a report that would help them implement strategies to improve PHC throughout rural Thailand.

Methods

The authors evaluated the delivery of PHC at one PCU in Nakhon Ratchasima ('Khorat') Province, Thailand. The research design is best described as a case study. During the course of the study we were immersed in the life of the PCU for one month and lived in Provincial Health Services accommodation for that period.

The case study PCU was located about 250 km north-east of Bangkok and was chosen by the Thai stakeholders in collaboration with the researchers because it was considered to be representative of most PCUs throughout rural Thailand. Thai stakeholders included the Provincial Chief Medical Officer; Dean of Public Health from a rural university in another province; Community Hospital Director of the District Hospital; other provincial health officers, including the Provincial Chief Development Officer in charge of Training and Research; and staff of the selected PCU and a Thai health professional/interpreter.

The population served by the case study PCU was comprised of 2800 villagers, most of whom were poor (Jitsanguan, 2001) earning a seasonal income of about 3000 baht (around A$100) a month as labourers and small-scale farmers (National Economic and Social Development Board 2004). The nearest private doctor's clinic was 14 km from the PCU, but it was economically beyond the reach of most villagers. PCUs throughout the district were supported by a 30-bed referral hospital which served a total population of 27,616 people from 46 villages. Selected characteristics of the case study PCU and the district hospital are shown in Table 3.

According to the Community Hospital Director of the District Hospital in which the research was conducted, the main causes of death for the population served by the case study PCU were:

- Heart/circulatory disease (151.96/100,000 persons)
- HIV/AIDS and other infections (81.3/100,000 persons)
- Cancer (63.6/100,000 persons)
- Accidents (42.4/100,000 persons).

The leading causes of morbidity were respiratory disease, digestive problems, musculo-skeletal problems, infections and circulatory diseases.

The questions used to guide the evaluation were:

- What PHC is provided by the PCU?
- How well is PHC delivered by the PCU?

During the process of data collection, we sought to elicit whether the care provided by the PCU was relevant and appropriate for the patient; done well; made available in a timely manner to patients who needed it; continuous with other care and care providers; performed in a safe, efficient caring manner; and respectful of the patient (Gilpatrick 1999).

	PCU	**District Hospital**
Nurses	3 nurses: 1 nurse manager 1 general nurse (4 years training) 1 public health nurse (2 years training)	23 nurses (training details not available)
Doctors	1 doctor, 5 hours a month	4 full-time doctors
Dentists	1 dental assistant, 3 hours a month	2 full-time dentists
Pharmacists	1 pharmacist, 3 hours a month	3 full-time pharmacists
Additional experts	None	15 (e.g., health promotion officer, radiologist)
Population served	2,800 people from5 villages rural poor small scale farmers serving geographical area of 30km2	27,616 people from 46 villages rural poor small scale farmers serving geographical area of 200km2
Capacity	No inpatients beds 6,000 outpatients consultation per year	30 inpatient beds 38,000 outpatients consultations per year
Facilities	Two story concrete building Motor cycle for nurses providing community work	Single –level building with dormitory for inpatient accommodation; outpatients; radiology; laboratory; administrative areas; conference facilities; cars and ambulances.

Table 3. Selected characteristics of the case study Primary Care Unit and the associated District Hospital

Starfield's approach to evaluating the quality of primary health care (Starfield 1998) informed the study variables and methods of data-gathering (Table 2). The latter were primarily qualitative, and included interviewing, focus groups, observations, and documentary and photographic analysis. Data were collected in field notes, and when focus groups and interviews were conducted they were then translated into English.

By accompanying the PCU staff on all their duties and using Kemmis and McTaggart's 'spiral of self-reflective cycles', (2000) we reflected daily with the PCU staff on the data gathered. Each afternoon the researchers (with their field notes) and the PCU staff would discuss the patients seen in the clinic that day. These discussions involved examination of patient records in family folders. The family folder is the primary health record file in the PCU and it contains brief health information of all family members, a genogram, family members' general characteristics, major health problems of each, and progress notes on treatment (Sennun, Suwannapong, Howteerakul, and Pacheun 2006). Questions arising from these discussions provoked subsequent investigations. Every evening the researchers reflected on the data gathered and prepared questions to be answered the following day with the help of the PCU staff.

Thai stakeholders participated in two reflective focus groups (Table 3), each of about three hours duration; one in the first week of the research and a second at the end, when an interim report was presented and discussed. Both focus groups were facilitated by the principal researcher, and a Thai interpreter, who was also a health professional, was used throughout the project.

Starfield's unique attributes and appropriate sources of evidence[1]		**Application to this study**
Unique attributes of PHC* and process elements/study variables* **	**Sources of evidence****	**Methods used in this study**
First contact care: Accessibility of the service and the extent of actual use of the service Process element of performance in regard to first contact care: utilisation.	Program design: hours of availability; accessibility to public transport; provision of care without requirements for payment in advance; facilities for handicapped; after-hours arrangements; ease of making appointments; and absence of language and other cultural barriers.	Program design was accessed by: interviews with staff and local health officials; taped focus groups with stakeholders; observations of daily activities of PCU over one month; observations of patient care; interviews with patients and villagers; review of charts of patients seen each day; home visits; attendance at governance meetings. Reviews of patients claims/costs under Universal Health Coverage (UHC); receipts; records (family folders); clinical and management documents of PCU. Attendance at presentations of 1) structure of health services in the District; and 2) Structure of health services at PCU. Documents reviewed: agenda of April meeting of the Contracting unit of the PHC Board; avian influenza simulation rapid response team exercise; after action review of above; checklist of yearly review of PCU activities; health education review document, which every household had to complete; health survey for diabetes and hypertension;
Longitudinality: Person focused contact over time (involves the extent of provider-consumer contact for all but referred care) Process elements of performance in regard to longitudinality: population eligibility; patient identification with a particular provider.	Review of patient lists and interviews with patients about the regularity of their contact for disease management; management of signs and symptoms; administration(need for certification of illness and health) test results; need for and return from consultation for secondary level care; and prescription of drugs and other therapies.	
Comprehensiveness: Primary health care services to meet the common needs of the consumer over time. Process elements of performance in regard to comprehensiveness: problem recognition; diagnosis; management and assessment; knowledge of patient's social profile; recognition of psychological problems; attitude towards and knowledge of preventive and psychological needs.	Recognition of the range of activities the system is designed to handle.	

Coordination: Health –related services and information brought to bear on patient care. Process elements of performance in regard to coordination; recognition of information from visits elsewhere; documentation of medication and compliance; problem lists/problem-orientated medical records; preventive care.	Patient records and interviews; seeking information about prior visits; the organized system of referral and retrieval of information about the results of referral	list of disabled people; antenatal record book; personal health record book. Review of clinical information system: methods, nature of, frequency of, and type of communication.

1. Starfield B. Primary care: balancing health needs, services and technology. New York: Oxford University Press; 1998 (*p. 29-30; **p. 282; ***p. 255-261)

Table 4. Conceptual framework used to guide study variables and data collection methods

The standards and protocols against which the process elements were evaluated were those of the Australian College of Rural and Remote Medicine (1997) and the Royal Australian College of General Practitioners, which were familiar to the Thai stakeholders and the researchers. The principal researcher was familiar with agricultural chemical management strategies as a member of the Safety Institute of Australia (SIA) and the Global Occupational Health Network (GOHNET).

The research proposal was approved by the Human Research Ethics Committee of the University of New England, Armidale, Australia. Nakhon Ratchasima Province Health Services accepted the Australian Ethics Committee approval to proceed. Information sheets for participants and consent forms were translated into Thai and the Thai interpreter ensured that the informants understood their part in the research process.

Results

First contact care

Accessibility and utilisation of the services provided by the PCU were influenced by the lack of public transport. Most patients walked to the clinic, others came on the back of trucks, or on motorcycles carrying up to four people (including children). Handicapped or elderly patients were sometimes wheeled along the side of the road in barrows. The District Hospital reimbursed a local villager for the use of his truck in emergencies, when it was used as an ambulance.

Thais are registered at the PCU nearest where they live for purposes of UHC, but people sometimes sought care elsewhere. This occurred for reasons of privacy (e.g. women seeking abortions), convenience (e.g. seasonal workers who became injured in the district), or lack of confidence in the staff of the PCU at which they were registered. Clinical reports were not sent back to the home PCUs of such patients.

When a person was referred to a hospital, or for specialist services in Bangkok, the contact between the patient and staff at the PCU was disrupted. This was because the PCU staff did not receive timely advice on the diagnosis, treatment or prognosis that was made elsewhere, nor were they consulted on what part they could take in the patient's treatment or rehabilitation.

FOCUS GROUP 1		FOCUS GROUP 2	
Participants	**Procedures**	**Participants**	**Procedures**
• PCU staff: nurse manager, general trained nurse, public health trained nurse • Provincial Chief Medical Officer • Community Hospital Director of District Hospital • Nurse Manager of PCU at District Hospital • District Chief Health Officer (Public Health) □ Health professional/interpreter	Topics discussed: • The nature of the research project, and what was required of the participants. All questions were answered and suggestions from participants recorded.	• PCU staff: nurse manager, general trained nurse, public health trained nurse • Provincial Chief Medical Officer • Dean of Public Health* • Community Hospital Director • Nurse Manager of PCU at District Hospital • District Chief Health Officer • Chief of Local Government • Head of Administration in Local Government • Assistant Provincial Chief Medical Officer • Provincial Chief Development Officer in charge of training and research and • Deputy Provincial Chief Development Officer (training and research) □ Health professional/interpreter	Topics discussed: • The research process • The research findings, conclusions and recommendations. Stakeholders' opinions and discussion points, including possible means of implementation of recommendations, were recorded.

*At the time of the focus group 2 this informant had resigned from this position temporarily and was elected Senator of the Thai legislature. After the coup of 2006, he returned to the position of Dean of Public Health.

Table 5. Focus group participants and procedures

Thais registered at other PCUs were welcomed at the PCU if they chose to come there. Elderly people attended for repeat prescriptions and minor illnesses. Patients with minor injuries came for dressings, because some of them could not afford to buy bandages or antiseptic.

The usual number of patients per day was between 10 and 20. On antenatal days, the PCU staff attended to between 20 and 30 women. When the doctor, pharmacist and dental assistant visited the unit, the number of patients swelled to between 60 and 80. Whereas the nurses sometimes spent up to an hour on a consultation, the doctor spent about five minutes with each person. The dental assistant bought a mobile dental chair to the PCU and treated about 15 people during each three hour session; extracting teeth and prescribing antibiotics for abscesses. The dentist at the District Hospital performed more difficult procedures (e.g., fillings).

Longitudinality

Measurement of 'longitudinality' relates to who in the population is eligible to receive PHC from this PCU, and how exclusive that eligibility is. This is linked to the concept of identification of the patient with the provider over time.

Thais are registered at the PCU nearest where they live for purposes of UHC, but people sometimes sought care elsewhere. This occurred for reasons of privacy (e.g. women seeking abortions), convenience (e.g. seasonal workers who became injured in the district), or lack of confidence in the staff of the PCU at which they were registered. Clinical reports were not sent back to the home PCUs of such patients.

When a person was referred to a hospital, or for specialist services in Bangkok, the contact between the patient and staff at the PCU was disrupted. This was because the PCU staff did not receive timely advice on the diagnosis, treatment or prognosis that was made elsewhere, nor were they consulted on what part they could take in the patient's treatment or rehabilitation.

Comprehensiveness

As indicated in Table 2, measures of the comprehensiveness of PHC services deal with: problem recognition; diagnosis, management and reassessment; knowledge of patients' social profile; recognition of psychological problems; and attitudes towards and knowledge of preventive and psychological needs. The following examples demonstrate the complex nature of the problems presenting to the PCU and the inadequacy of some diagnoses by PCU staff:

1. While waiting to see the doctor on his monthly visit to the PCU, middle-aged women chewed betel nuts as they talked together. When these women went to the dentist for extraction the first author noted what appeared to be palatal leucoplakia (precancerous slowly developing change in the mucous membrane) and gum disease. The same women complained to the doctor of longstanding insomnia and abdominal pain. They were diagnosed with 'insomnia' and 'dyspepsia', and given sedatives and antacids. It was neither considered nor recorded that the women were betel-nut chewers, although they openly enjoyed the habit as they waited to be seen.
2. A cluster of four people, one man and three women, presented over a period of 18 hours with fatigue, headaches, dizziness, itchy skin, blurred vision and sore eyes. On examination they all exhibited very low blood pressure. The diagnosis was 'weakness', and they were treated with vitamin B complex and analgesics without advice on the possible cause of the condition or means of preventing its recurrence. We found that these patients were all agricultural workers who did not use personal protective equipment when spraying chemicals in the hours before presentation at the PCU. The most severely affected woman had a blood pressure of 90/60. The researchers and PCU staff followed up this woman the next day at her second worksite and found that her blood pressure had returned to normal.
3. Six people, four men and two children, presented with cuts and deep lacerations to the feet and lower legs. These injuries, including those of the children, occurred at work, and were caused by knives, machinery or broken glass. The villagers either went without shoes entirely or wore rubber 'thongs' or 'flip-flops'. Although antibiotics were used, healing was delayed because the staff were not permitted to take swabs for microbiological diagnosis and sensitivity testing; dressings were cheap and not water-

proof; and the local water was not clean. Preventive strategies (e.g. encouragement to wear shoes) were not considered. Two of the men smelt of alcohol and their regular and excessive alcohol intake was known to the PCU staff. The latter did not comment or try to intervene about the alcohol abuse, explaining to us that it was a private matter for the patient.

We observed that many older patients presented regularly with the same complaints, and received the same combination of medications, without their clinical data being reviewed periodically for reassessment. One woman with diabetes, who had multiple PCU service contacts, several inpatient stays in the District Hospital and ten doctor consultations, had no reassessment or enquiry about her lack of compliance with control of blood sugar.

Coordination

Measures of coordination included: retrieval of health information about consultations conducted elsewhere; documentation of medication and compliance; problem lists/ problem-orientated medical records; and population and individual preventive care. Coordination was problematic at the PCU in many ways.

There were instances of children with congenital disorders and blindness who had been referred to specialists, but no information accompanied the family on return, or was sent back to the PCU. The PCU did not have a landline telephone. The staff relied for communication on mobile technology, erratic internet connections, and personal travel (mainly by motorcycle). They did not have ready access to supervision about problem cases.

There were several tools used in the PCU for documentation of patients' records: the family folder; a personal records book; and an antenatal care records book. Information on the social, occupational and economic history of the patient, together with the history of clinical or surgical contact, was not gathered together in one file. Primary data such as those contained in laboratory reports were transcribed by hand, with the possibility of introducing errors. The personal records book and the antenatal care records book were used to a variable extent by the community.

The PCU staff showed some natural reserve in talking of 'moral' or 'private' matters (e.g. alcoholism, drug addiction and HIV/AIDS) although, on enquiry from us, they were generally well aware of patients' problems. This was not just discretion in front of the researchers: such issues tended to be ignored, not being discussed in interviews with patients or recorded in family folders. The Thai interpreter would return at a later stage by himself without the 'farangs' (Thai word meaning foreigners) and discuss some of these culturally sensitive issues fully with the staff to gain a better understanding of their approach in these matters.

Statistics on HIV/AIDS were collated by local government officials. Testing was done confidentially at the District Hospital and provision for income support was available through local government. However, information that existed on the incidence of HIV/AIDS and its prevention was not freely disseminated. Condoms were available on request as part of the HIV/AIDS program of the Ministry of Public Health and we were told PCU staff advertised this in villages. However, although AIDS was the fifth most common cause of death in the district, only one man asked for condoms during the period of our research. In antenatal care, women were given the choice of an HIV test, but, as they had to pay themselves, only about half took up the offer.

Medicines were handed out liberally after each consultation. These included antibiotics, anti-inflammatories, antifungals, antihistamines, analgesics, antacids and sedatives. No

record of the medications received by the family was included in their folder. Some medications (e.g. digitalis) could not be dispensed by the nurses, even for repeat prescriptions, and writing out repeat prescriptions took up a large part of the time of the doctor's monthly visit to the PCU.

Discussion

Principal findings

The PCU can act as a 'gatekeeper' to specialist health services in the District Hospital, protecting the patient from unnecessary medical treatment and limiting access to high-cost medical services (Franks, Clancy, Nutting 1992) There is a trade-off between freedom of the patient to choose and operational efficiency of health services management. Both the transport arrangements and the lack of advanced-level medical functions (e.g. reassessments, clarifying differential diagnoses, supervision and training, and complex case management) at the PCU did not allow it to act in a gatekeeper role. The PCU could not provide comprehensive care for the patients over time because of a lack of diagnostic skills of the PCU staff; and lack of access to direct supervision by the PCU staff.

PHC differs from secondary and tertiary care because of the lack of differentiation of the problems that present in the primary care setting (Starfield 1998). The women with insomnia, decayed teeth and dyspepsia are examples of poor problem recognition and staff-selective attitudes towards preventive health because betel nut is the most widely used stimulant in the developing world and is associated commonly with dental decay, oral cancers, insomnia, stomach discomfort and intestinal cancers (International Agency for Research on Cancer Monographs 2004). Betel-nut chewing was considered by the PCU staff to be the private business of the patients and not part of their responsibility as health professionals. Similarly the presenting symptoms of the agricultural workers were not considered work-related. However, such symptoms are commonly attributed to agricultural chemical toxicity. Acute chemical toxicity is the major problem arising from the use of pesticides in the developing world (Jeyaratnam 1999). Community preventive strategies were not developed from an awareness of local need because preventive health programs were decided nationally. Despite the weakness of problem definition, the health data from the PCU went on to become statistics in district, provincial and national health databases.

PCU staff were not included in ongoing health interventions initiated by other services, with the result that patients could not go to the PCU for informed follow-up care. Because these patients were poor and not medically literate, this was a deficiency in the quality of health services available to them. While the family folder is important institutionally and traditionally because it conveys a family focus, it had shortcomings as a medical record as it was not adapted to the mobility and privacy of the rural people.

Strengths and weaknesses of the study

The strengths and weaknesses of this study are those associated with the case study design. A strength of the design is the intense focus on a single case (here it was the rural PCU). Such an approach has the potential to provide new insights into complex organisational issues that may be used to build theory (Bryman 2004). This research was further strengthened by the use of Starfield's conceptual framework (1998) and the involvement of PCU staff and Thai stakeholders in the final stages of data analysis and interpretation. The main weakness of the design is that the results are not able to be generalised to the relevant population; a problem of external validity. Despite these known limitations, Thai

stakeholders accepted the findings presented in an interim report as a true account of PHC at that case study PCU, and considered them to be applicable to other rural PHC settings in Thailand.

Policy and practice implications

As a result of our study, it was recommended that health professionals in rural PCUs in Thailand would benefit from:

- clinical supervision with specific, regular and close attention from experts;
- provision of timely/appropriate/accurate information to use for patient care;
- training programs for clinical, community, occupational and management skills-development at the PHC level; and
- authority to prioritise services for the disabled and aged through the development of a health advocacy role for the PCU Manager.

With a community approach in PHC as recommended by the World Health Organization (WHO) in 2003, PCU staff should be trained to recognise and institute control measures for occupational illnesses; conduct assessments of mental status, and provide supportive counselling for alcohol and drug abuse; teach children to floss and brush teeth regularly; and provide education on HIV/AIDS prevention. Thailand has one of the highest pharmaceutical drug consumption rates per capita in the world, (Cohen 1989, Filmer, Hammer, and Pritchett, 1997) a fact that indicates a strongly embedded bias towards curative rather than preventive medicine. Improving the efficiency of the supply and use of drugs is one management system change that would reduce costs substantially. Health initiatives to provide trained health professionals are needed where public health infrastructure and occupational and environmental health are poorly developed and the community lives in or near poverty. Research into methods and processes of collaboration and communication between primary and secondary care needs to be carried out in order to integrate community, PCU and hospital services.

Conclusion

This process evaluation of one PCU in rural Thailand five years after UHC was introduced in 2001 was undertaken to provide Thai stakeholders with recommendations to improve the quality of PHC within current resource constraints. The evaluation concluded that improvements in the performance of PHC in rural Thailand could be made so that resource use could be maximised.

Thai stakeholders contributed to the evaluation and accepted the interim report as a true account of PHC at the case study PCU. They considered the recommendations appropriate for application in this setting and possibly other rural PHC settings in Thailand and indicated that they intended to implement the recommendations in the study province

6.2 Developed countries, employment and mental illness

The second piece of research that I conducted has been published in the journal, Higher Education Research and Development, and is titled: *How social relationships influence academic health in the 'enterprise university': an insight into productivity of knowledge workers.* This is an important article from my thesis research that is available in a book: *The health that workers want*.

This research highlights some important aspects of contemporary employment. The employment relations, employment conditions and working conditions in developed

countries impact on employees' mental health because of the social relationships in the work environment. When employees feel the psychological contract is not balanced they respond by withdrawing their efforts.

Social relations in the work place

Downsizing is the most common form of rationalising business operations by reducing salaries and expenses. Leigh and Mayhew (2002:344) report that 10% of workers suffer a stress-related or depressive illness each year and there are increased proportions of stressed workers in organisations undergoing large-scale restructuring, and that stress contributes to 30% of all work-related illnesses. Downsizing produces two types of problem that influence health according to the Demand–Control–Support theory. First, there is increased workload because of reduced staff and second, there is loss of support as staff networks are disrupted by redundancies or redeployment of staff. The combination of high expectations and low support is frequently associated with dissatisfaction and ill health according to Karasek's (1979) Demand–Control–Support theory. Employees are affected by the way work is constituted, constructed and managed, and in service industries, work is a socially determined activity and the social nature of work has positive and negative benefits for health and productivity. Putnam's 'social capital' (2000:326) is a group level construct and refers to social connectedness through these social relationships, and according to Putnam, is one of the most powerful determinants of well being. Social capital is a metaphor for performance advantage obtained by social network development as a function of social structure (Burt 2000:346).

The employee–employer relationship has been conceptualised in the psychological contract since Barnard in 1938 and refers to the exchange of implicit and explicit factors that bind the parties in the relationship. Rousseau (1995:7) comments on the difficulty of reestablishing balances between the contributions that employees make and the inducements that organisations offer to employees when those balances are disturbed. Employees actively change what they offer to the organisation if they perceive that the inducements (i.e. material and social rewards) are not appropriate, particularly in relation to their health and wellbeing. The nature of the employer–employee relationship is important in shaping the work culture and the dynamism of this relationship is demonstrated in relation to critical health events when employees change their behaviour.

Employee behavioural responses, particularly to restructuring in organisational and industrial changes show two main forms. Individualistic employees try to cope by detaching intellectually and/or physically from the organisation and 'working to rule', while in the other response employees try to change the workplace from within. This detachment from the organisation is also a detachment from social networks at work. In its extreme form this detachment is called 'presenteeism' which means that the employees comes to work but actually does not contribute much to productivity. Not only does each response require a personal struggle on the part of the followers, the existence of the two responses in the one workplace creates division among the employees and there is a risk of disunity, dissent and multiple purposes within the work culture.

The rationale of employers supporting restructures and their proposed view of its implementation are not consistent with the reality that unfolds for employees. The rhetoric of employers is that employees will be listened to, workload will not change, and it will all be for the best, but in fact, employees find that their comments are ignored, or worse, regarded as divisive, and the workload increases.

The four issues that define and differentiate types of stress are: the sense of control the employee have over the work situation; the balance that exists between the work and home domains in the employees life; the perception of the effort put into work and the rewards received for that effort; and finally the relationships at work with fellow workers, supervisors and managers. The first three issues are more important to differentiate workplace stress as productive or counterproductive. Whereas the last issue, that is, relationships at work, is more significant for the pervasive and formless systemic stress that is felt at the level of the workgroup.

Productive workplace stress is associated with intellectual stimulation and accomplishment, and counterproductive workplace stress is associated with negative states such as limitation and burden. These individual perspectives of workplace stress are positivist representations of the 'reality' of the employer–employee relationship at work. Ways of thinking about workplace stress are culture bound in this relationship. However, recognising systemic stress challenges the limitations of this epistemiology and ontology. The third type of workplace stress is more diffuse and is associated with lower levels of trust in the organisation and is a social reality rather than and individual reality. With social or post-modern relativism this additional and systemic stress is cultural bound, socially conditioned, historically relative and contextual; it is as Scheurich's (1997: 34) states 'a political struggle'. The broad issues involved in coping with workplace stress relate to the active response of employees to workplace stress, the different categories of staff affected and their evolving experience of the workplace operated at the level of the individual, workgroup and the organisation. The health effects of workplace stress are described as minor and major physical and mental illnesses affecting the individual and a more generalised reduction in the quality of employees' lives. Stress in the workplace is summarised in below.

- Productive stress
  - stress is productive when there is the successful application of the individual employees abilities
  - work tasks are associated with intellectual stimulation and work is a challenge that is achievable
  - central issues for the individual are: a sense of control about how and when to do work; rewards are appropriate to efforts extended; the employee's skills are fit for the work duties
  - employment contract is mutually rewarding, characterised by trust
- Counterproductive stress
  - stress is counterproductive when work is a burden to endure because tasks constrain the employee and limit the sense of achievement
  - origin of counterproductive stress is quantitative and qualitative work overload
  - central issues for the individual are: decreased control and imbalance between effort extended and reward received
  - employment contract is not satisfactory to employees and they feel exploited
- Systemic stress
  - stress is systemic because it operates at the level of the workgroup and is associated with negativity in the social processes of the work environment
  - origins of systemic stress are competitive adjustments of organisations in market economies

  - employer–employee master narrative is positivist and acknowledges competition but does not acknowledge the impact of competition on social processes at work
  - work activities are made harder
  - central issues for the workgroup and organisation are the development of individualism and the fragmentation of social relationships
  - employment contract is strategically managed by both employers who want knowledge workers with flexibility, and employees who want continuous financial security though employment with one or a series of employers
- Broad issues in coping
  - employees are active in coping with workplace stress
  - different categories of staff react differently to stress
  - responses to workplace stress at different levels, that is, individuals, workgroups and organisations to workplace stress are dynamic, changing over time.
- Health effects
  - employees suffer minor and major physical and mental illness
  - reduced quality of life can occur

Bullying in the workplace is the failure management to shape workplace relationships in a constructive manner. The phenomena of bullying, in its obvious form is associated with persistent insults, offensive remarks, persistent criticism, personal and even physical abuse. In its subtle form bully consists of excluding or isolating the victim from his/her peer group or excluding them from information and/or appropriate interactions and opportunities in the workplace. The exact frequency of bullying is hard to determine but it is generally more common that employers like to state Einarsen et al (2003). In Australia the federal health and Safety regulator Comcare said that workplace bullying is on par with workplace stress as the main causes of serious mental stress claims (Griffiths, 2011).

Employees who suffer mental illness are disadvantaged compared to employees with physical illnesses for two reasons. Firstly the nature of mental illness is such that it rarely starts suddenly. There is a gradual deterioration in wellbeing particularly with depression, and with treatment there is a gradual recovery. The gradual nature of the onset and recovery means that the employee is likely to be at work and not performing at his/her best. This is usually hidden, and fellow workmates cover and do what is necessary to protect their colleague, or if it is obvious the lower performance is viewed critically. The burden of hiding the depression-illness is an additional problem for the employee as workplaces generally are not sympathetic or knowledge about the true nature of the cycle of depression and its impact on the persons' performance.

7. Future research

Employment and mental illness is an important area for future research. These include:

1. What are the optimal social networks and social supports for employees and employee groups in different situations and how are these matched?
   There is not a universal social network or support that is beneficial to all employees in every circumstance. For example, employees living alone and near retirement have different social needs from the workplace than young employees with children who are just entering the workplace. Tailoring support to the particular mix of employees would ensure the most beneficial effect for their health in the most efficient manner.

2. What are the mechanisms of action of social relationships on health?
   Rutter (1985:316) suggests that the protective processes of social relationships may act in several ways: (1) by reducing exposure to risk by groups being more cohesive; (2) by reducing negative consequences of exposure to risk; (3) by developing employees' resilience through increased self-esteem and self-worth; and (4) by developing enhanced adaptive behaviour through the opportunities for better outcomes at critical turning points in employees' lives. The mechanism of action of social relationships on health may also be determined by the nature of the risk that the individual within the group is exposed to. Greater knowledge of the buffering and transmitting effects of social relationships would increase our understanding of disease patterns.
3. How can the concept of stress be clarified to incorporate the reality of compounding factors, variable timeframes, vulnerability and resilience and assessment of outcomes?
   Research in the empirical world of work needs to consider compounding factors, variable timeframes and lengths of exposure and latency periods for illness onset. These issues represent the reality of risks at work in contrast to the injury model with its isolated exposure to a noxious environment causing an immediate illness. The injury model is applied inappropriately to illness and disease at work.
4. What are constructive human resource interventions with organisational change?
   With organisational change being common, human resource management needs to follow the process through so that employees who are retained in employment are better able to manage. Human resource interventions would be constructive if they prevented harm to employees and sustained productivity after the restructure.
5. What are the short-term and long-term influences of electronic communication systems and new technology on the socialisation process?
   Electronic communication and new technology are pervasive in everyday life and at work in particular. The speed of information transfer is obvious but the effect on accepted behavioural patterns and activities of employees is less obvious.
6. What are the effects of telework on employee health and organisational productivity?
   The various forms of telework are increasingly used by organisations to attract staff that they would otherwise not be able to employ. Telework also removes the need to provide office space and other facilities for staff. There is increased need however for communication and monitoring systems to ensure that outcomes are achieved. Additionally, for complex deliverables the coordination functions of a project manager are needed to bring together the outputs of employees with disparate skills connected by communication systems. With extensive use of telework as an organisational strategy for competitive advantage, the skills of the management and the well being of the employees need to be reviewed because telework is a significant departure from the familiar workplace where employers and employees are housed together.
7. What are the health effects of mobility and short-term contracts on executives, and what are their mechanisms of action?
   Nowadays the vulnerability of lower paid workers to changes in employment contracts is seen in the increasing use of part time staff, short-term contracts and other strategies to allow the organisation flexibility to hire staff with the skills that are needed at the time, and terminate those employees when they are not needed.
   At the other end of the spectrum, executives too are accepting short-term contracts. However, compensation would be made in the contract for the executive for the risk of unemployment between contracts. Nevertheless, the health effects of mobility and

short-term contracts are important considerations for this group of executive employees.

8. What are the health effects of quality employment on women? In dealing with workplace stress, how do women's coping styles differ from those of men, particularly when they are in the same industry?
   It is important to specify as carefully as possible what factors influence health. The notion of quality employment has merit because it implies some freedom over the work situation that is not there with low quality employment. When summarising the literature in the area of workplace stress, Langan-Fox (1998:273) recognised coping styles being influenced by gender. In the qualitative data this research shows some differences between married women and men in their adjustment to work, but that adjustment is hinged around the needs of children. Women without children and women who are single parents are not identified in the qualitative data. Further clarification of the issues that are involved here, (that is, responsibility for children, financial resources in the home and living as a single parent) would be helpful to identify the impact of gender on employee health.
9. What is the optimal mix of values for employee health and organisational outcomes and how can that mix be achieved?
   The values of the stakeholders embedded in the employer–employee relationships are vary. Some values, such as competitiveness, support profit over health, whereas other values, for example, sustainability, indicate a long-term view with profit being reconciled with social justice. The present employer–employee relationship is dominated by profit generating values and policies and practices that flow from these values are utilitarian and individualistic in nature. Being aware of this starting point and trying to change these values is more useful than trying to negotiate within the present employer–employee relationship. The optimum mix of the various stakeholders' values would ensure both organisational profit and employee health are achieved. This mix would produce greater flexibility with the utilitarian and ontological variation in individualism–collectivism dimension in the employer–employee relationship.

8. Conclusions

In this chapter employment and its link to the burden of mental illness, has been traced in its theoretical and practical aspects. Employment is a major factor in the genesis of ill health. In developing countries employment is on the whole agricultural and the major hazards are chemical poisoning and physical injury. Recent research in rural Thailand is presented to highlight these factors.

In developed countries where service industries are predominant the main health problems are those related to stress and bullying with the erosion of employment conditions. Recent research highlights the complex nature of stress at work and its impact on employees. The employer-employee master narrative dominates work and is responsible for social relationships at work that bear heavily on stress situations and create the environment for bullying.

Employment and mental illness is a rich area for future research and many factors that bear on employment conditions and work conditions need to be researched to find ways to improve work for the heath and well being of employees. The employer-employee master

narrative will be influenced by increasing awareness of the impact on productivity of many of the poor work arrangements that harm employee's mental health.

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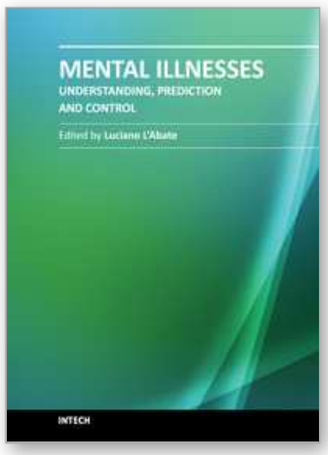
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In the book "Mental Illnesses - Understanding, Prediction and Control" attention is devoted to the many background factors that are present in understanding public attitudes, immigration, stigma, and competencies surrounding mental illness. Various etiological and pathogenic factors, starting with adhesion molecules at one level and ending with abuse and maltreatment in childhood and youth at another level that are related to mental illness, include personality disorders that sit between mental health and illness. If we really understand the nature of mental illness then we should be able to not only predict but perhaps even to control it irrespective of the type of mental illness in question but also the degree of severity of the illness in order to allow us to predict their long-term outcome and begin to reduce its influence and costs to society. How can we integrate theory, research evidence, and specific ways to deal with mental illness? An attempt will be made in the last conclusive chapter of this volume.

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