The effect of stress on health and its implications for nursing.

British Journal of Nursing, 22(16), 969-973.

Abstract
Stress is an important issue within nursing and it is difficult to find agreement among those who are expert in the area regarding a concise definition of stress. Nevertheless stress is seen as a negative feeling affecting people’s health either physically and/or psychologically. However, stress is a normal part of life and considered necessary to increase functional capacity, whereas stress over a prolonged period or when extreme can cause distress which may have debilitating effects that reduce work output, increase absenteeism and reduce one’s ability to cope with situations. The most important resource in any organisation is the employee; therefore maintaining and supporting their health is vital to ensure their ability to work, maintain standards and continuously improve standards of care. Leadership styles within organisations must facilitate staff to be involved in decision making; thereby staff feel more valued and work in an autonomous way. This article identifies and discusses the effect of stress on health and its relationship to nursing.

Key words: Health, Nursing, Psychological, Physical, Stress.

Introduction
There are various definitions of stress offered in literature and these highlight that everybody perceives stress differently and may react to the demands of stress in their own individual way. Some examples within the literature consider stress as: an association between individuals and the work place which may be perceived as damaging and destructive (Lazarus and Folkman, 1984); a pattern of psychological, behavioural, emotional and cognitive responses to real or imagined stimuli that are perceived as preventing a goal, endangering or otherwise threatening wellbeing (Carlson et al, 2006); a state accompanied by physical, psychological or social complaints or dysfunctions and results from individuals feeling unable to bridge a gap with the requirements or expectations placed on them (Labour Relations Commission, 2007). Seyle (1976) differentiates between two types of stress - eustress and distress. Eustress is seen as a positive response to the environment that facilitates growth, which Nuikka et al (2001) suggest can enhance and promote an individual’s ability to work and increases their functional capacity. When the leadership style within an organisation allows staff to be involved in the decision making process of the organisation, staff feel more valued and work in an autonomous way, which is conducive to eustress. Doody and Doody (2012) identify transformational leadership as been effective in enabling staff to become more involved and valued within their work. A certain amount of stress can motivate, empower and enthuse staff, thereby enhancing the caring process. However, if this stress is persistent, intense or repeated, and the individual becomes unable to cope, it may become distress (Dowell et al, 2000) which is a negative response to the environment resulting
in physical and psychological maladaption (Seyle, 1976). As stress is a factor or set of
conditions that the individual must cope with (Keil, 2004), it is typically ascribed with
negative connotations and is generally seen as a negative, harmful and undesirable
phenomenon (Helman, 2001). Stress that occurs in an individual’s place of work is seen
as occupational stress and is closely associated with absenteeism, illness and staff
turnover (Edwards et al, 2003). When the demands placed on the individual exceed their
ability to cope, a stress response may be triggered (Clancy and McVicar, 2002). As a
result, the person moves along a continuum from feelings of eustress to moderate or
severe distress (Bartlett, 1998). However, it must be recognised that stress does not
always trigger psychological distress, which arises only when imposed demands are
perceived to exceed ability to cope.

It is important to recognise that stress is a state and not an illness. Stress may be
experienced as a result of an exposure to a wide range of work demands and which can
contribute to an equally wide range of outcomes, which may concern the employee’s
health and be an illness or an injury, or changes in their behaviour and lifestyle
(Moustaka and Constantinidis, 2010). As an occupation, nursing has a collection of
circumstances leading to stress, including a highly demanding job with poor support,
rapidly changing circumstances, shortage of resources and staff, and dealing with death
and dying (Chang et al, 2005). These factors are inherent in nursing and are compounded
by environmental factors such as difficult patients and their families, relationships with
physicians, low institutional commitment to nursing and the delivery of poor quality care
(Chang et al, 2005). In addition, responsibilities, such as the need to undertake continuing
professional development and part-time education (Timmins and Nicholl, 2005; Watson
et al, 2009) and the emotional nature of the job (Mann and Cowburn, 2005), contribute to
interactive stress and to the daily stress of nurses’ work. However, in reality, too few
nurses describe their work as heavy, overwhelming, busy and exhausting (Geiger-Brown
et al, 2004), so current stress figures may be under representative of the actual daily
reality of nurses.

**Effects of stress on health**

Stress affects people in different ways and is recognised as a cause of physical and
psychological ill health (Ortqvist and Wincent, 2008). Occupational stress can cause
unusual and dysfunctional behaviour at work and contribute to poor physical and mental
health. In the short-term, it may lead to a variety of disorders and illnesses from chronic
fatigue to depression (Kivimäki et al, 2002). In extreme cases, long-term stress or
traumatic events at work may lead to psychological problems and be conducive to
psychiatric disorders resulting in absence from work and preventing the worker from
being able to work again (McFarlane, 2010). Some people who experience stress may
engage in unhealthy practices such as; smoking, excessive drinking, poor diet and little
exercise (Ortqvist and Wincent, 2008). They may become distressed, irritable, enjoy their
work less, feel less committed to work, have difficulty thinking logically or making
decisions (Kivimäki et al, 2002; Marine and Serra, 2006). Generally we view stress as
having either psychological and/or physiological reactions that affect health.

**Psychological reactions to stress**
Stress produces emotional reactions ranging from exhilaration, when an event is stressful but manageable, to anxiety, anger, discouragement and depression when an event appears to be unmanageable (McVicar, 2003). Continuous stressful situations may trigger a variety of emotional responses dependent on the success of the individual’s coping efforts. Portman (2009) characterises anxiety as: worry, apprehension, tension and fear, which may be manifested by the feeling of numbness, lack of interest in former activities and a sense of estrangement from others. Cognitive impairment may be an initial sign of stress; here the individual finds it hard to concentrate or organise thoughts logically or may be easily distracted, which may lead to deterioration in work quality (Gelsema et al, 2006). The symptoms of psychological stress include: reliving of the trauma repeatedly, either in memories or dreams, leading to sleep disturbance; displaced anger or aggression toward an innocent person or object rather than toward the object of their frustration. McFarlane (2010) suggests that if the stressful situation persists this apathy may deepen into depression. Stress may also affect the wellbeing of the nurse with a positive correlation between stress and mood disturbance (Healy and McKay, 2000) with common effects including: anxiety and irritability, depression and mood swings (Wiegand and Funk, 2012).

McGrath et al (2003) explored stress in nursing, the effects of stress, views on nursing and coping strategies. Their results demonstrated that nurses expressed dissatisfaction regarding lack of autonomy and practised an avoidance of the emotional demands of nursing, suggesting that this is a coping mechanism to reduce stress and termed ‘avoidance behaviours’. It also emerged that improved relationships with other professionals and greater support within the nursing arena have had a beneficial effect on alleviating and preventing stress for nurses. One method of coping, as indicated, was avoidance, which may result in a loss of the caring element of nursing by giving only a clinical response to those in their care. Stress can have a significant impact on individual nurses and their ability to accomplish tasks. More specifically, poor decision making, lack of concentration, apathy, decreased motivation and anxiety may impair job performance, creating uncharacteristic errors (Jones et al, 2003). All of which can directly contribute towards absenteeism, decreased work performance, and ultimately, burnout. This fact is also supported by Jenkins and Elliott (2004) who uncovered a correlation between emotional exhaustion, depersonalisation and avoidance. Respondents who scored highly on stress scores scales (Mental Health Professionals Stress Scale, Maslach Burnout Inventory and House and Wells Social Support Scale) were more likely to demonstrate higher levels of depersonalisation (Jenkins and Elliott, 2004). These results would have a negative effect within the relationship developed between the nurse and patient where the nurse has a role to advocate on behalf of the individual where necessary. Thereby as advocacy is considered to be an essential element in the professional nursing role, nurses should receive ongoing training to ensure it is used effectively to enhance the lives of people (Llewellyn and Northway, 2007).

Physiological reactions to stress
Physiological responses refer to the internal responses within the body that regulate physiological processes in an optimal way to adapt to the demands of the work environment (Gaillard and Kramer, 2000). While the capacity for performing a job is
determined primarily by cardiovascular, pulmonary, nervous, musculoskeletal, endocrinal and other regulating body systems, both individual intrinsic characteristics (e.g. age, sex, body fitness, health conditions) and work-related factors (e.g. workload intensity, shift duration, nature of the work) can modify physiological functions and work performance (Astrand et al, 2003). The effects of work-related stress detract from the quality of nurses’ working lives, and may contribute to some forms of physical illness (Cox et al, 1996). Stress causes the body to respond innately by initiating a complex sequence of events. The fight or flight response causes the body’s metabolism to increase in preparation for expending energy on physical action, thereby curtailing unessential activities such as digestion, saliva and mucous production which over a long period can be harmful. The short-term symptoms of stress include headaches, muscular tension, chest pains, indigestion, palpitations, disturbed sleep and increased susceptibility to respiratory infections (Blaug et al, 2007).

However, stress may also have beneficial effects as it can create an emotional toughness leading to greater stress tolerance causing the person to be less fearful and lead to a quicker return to normal levels of stress hormone (McEwan, 2009). Stress plays an important role in more than half of presenting medical problems as it may exacerbate existing medical issues (McFarlane, 2010) which are known as psychophysiological disorders, and are a result of altruistic overload, where life circumstances produce a chronic stress which over time leads to wear and tear on the body leading to illness (McEwan, 2009). The long-term over arousal of the sympathetic system and the adrenocortical system can cause damage to arteries and organs. Coronary heart disease is a leading cause of death and chronic illness. People in high-stress jobs are at increased risk of this disorder, particularly those who are in jobs that are highly demanding in terms of workload, responsibilities and role conflicts, but have little control over the speed, nature or conditions of work (Cohen et al, 2007; McEwan, 2009).

When stressed, one may engage in behaviours that undermine the body’s attempt to fight illness, such as frequent colds and headaches associated with stress, by taking a poor diet, cessation of normal exercise routines, becoming sedentary and having a poor sleeping routine. Malone (2004) demonstrated that stress can lead to drug and alcohol abuse, eating disorders, sleep disorders, which may result in absenteeism or job loss. High levels of work demands are congruent with fatigue and stress, which if not recognised, acknowledged and adequately dealt with, may result in burnout (Hardy et al, 1997). These studies serve to illustrate the individual causes and effects of stress within the nursing profession generally. While each nurse involved in the care of patients is an individual, he/she is also part of a social support network, which when combined has a direct and positive outcome on occupational stress. A strong negative relation between nurses’ occupational stress and job satisfaction has been found. This is a concern as growing occupational stress results in increased turnover, which causes more and more nurses to leave the nursing profession (Shader et al, 2001; Moustaka et al, 2009). Occupational stress and its consequences on nurses’ behaviour can create mental problems such as anxiety, depression, insomnia and feelings of inadequacy (Wong et al, 2001).
Conclusion
It must be acknowledged that it is difficult to find agreement among those who are expert in the area regarding a concise definition of stress. Nonetheless, most people regard stress as a negative feeling that affects people either physically and psychologically or both if undetected or untreated. However, stress is a part of life and is considered necessary to increase functional capacity, whereas distress may have a debilitating effect that reduces work output, may increase absenteeism and reduce the person’s ability to cope with situations. While tolerance levels and responses to stress vary from person to person, interventions introduced should reduce the stress source and then reduce the person-stressor interaction and finally give protection to the exposed person. Occupational stress is an important issue within nursing and while various researchers have attempted to determine the factors that impact on staff stress, it is also essential that nurses’ working conditions are evaluated and also that their perceptions of their working conditions are analysed.

The most important resource in any organisation is the employee; therefore maintaining and supporting employees’ health is vital to ensuring their ability to work, maintain standards and continuously improve standards of care (Holden et al, 2011). In the current economic climate, with a decreased staff-to-patient ratio, non-recruitment and staff embargo directives in place, there is a higher demand on nursing staff and a greater risk of stress. Given the effects on the individual and on health service delivery, such as absenteeism, there is a continual need to be aware of these issues and for organisations and managers to address these in a proactive manner. With this in mind National Institute of Health and Care Excellence (NICE) (2009) issued guidance for employers in supporting mental wellbeing as stress and stress-related conditions are the second most commonly reported issues of ill-health, with health professionals having among the highest reported levels of stress (D’mello, 2011). It is for these reasons that stress and its causative factors need to be taken seriously by employers as stress impacts adversely on an organisation in the form of low staff morale, absenteeism, human error and a negative image of the organization (Health and Safety Executive (HSE), 2007). The NICE (2009) guidelines promote employers to consider strategic and coordinated approach to promoting employees’ mental wellbeing; assessing opportunities for promoting employees’ mental wellbeing and managing risks; flexible working practices; and the role of line managers.

High levels of perceived social support reduce the sense of stress at work and enhance the sense of health as social support impact on both job stress perception and health status (Oginska-Bulik, 2005). The effects of stress are well documented, but while the physiological signs may be apparent the psychological ones may not be so obvious and by having an awareness of the possible signs one may begin to work toward alleviating potential problems (Cooper, 2004). The reality in today’s healthcare institutions is that they differ in size and nature, and nurses are confronted with different work tasks, working hours, work shifts, working conditions, understaffing, stress-related situations, suffering patients and the deaths of patients. The American Nurses Association (2005) advises healthcare providers that nurses work-health should be evaluated periodically for the consideration of staffing adequacy. However, little empirical data are available on the
physiological impact of current workload on nurses during daily shifts. Identifying whether workloads exceed the physiological limits is imperative to the determination of workload allocation and shift scheduling (Saha et al., 2008). Furthermore, there are increasing concerns regarding the negative effects of twelve hour shifts upon nurses’ wellbeing and work performance (Trinkoff et al., 2006; Keller, 2009; Geiger-Brown and Trinkoff, 2010). In addition, it is recognised that there is an ageing workforce and some studies state that high work pace, demanding physical workload and personal health conditions were the major work challenges for older nurses (Andrews et al., 2005; Chiu et al., 2007; Cameron et al., 2009) and older nurses favour working 8-hour rather than 12-hour shifts (Hoffman and Scott, 2003; Trinkoff et al., 2006).

Addressing these issues in nursing practice will involve employers acknowledging their responsibility and mandating work-rest schedules be instituted into healthcare facilities, as self-regulation fails to provide sufficient breaks to guard against physiological strain. Shift nurses who have family care-giving responsibilities at home should be encouraged to avoid working consecutive 12-hour shifts and a special focus is required to concentrate on limiting the physical and psychological workloads that may significantly increase physiological strain on ageing nurses. To promote wellbeing among older staff nurses, nurse managers may consider providing flexible shift hours, ergonomic modifications, wellness programmes, and transferring older nurses from bedside nursing to mentoring younger nurses (The Lewin Group, 2009).

Key points

• Occupational stress is an important issue in nursing as stress-related conditions are the second most commonly reported issues of ill-health.
• Stress increases functional capacity. However, prolonged or extreme stress reduces work output, ability to cope with situations and increases absenteeism.
• Employers need to promote and assess employees’ mental wellbeing to ensure their ability to work, maintain standards and continuously improve standards of care.

Conflict of interest: None

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