STRESS AND COPING AMONG PSYCHIATRIC NURSES

Asem Ahmed Abdalrahim

Correspondence:
Asem Ahmed Abdalrahim, MSN, RN
Lecturer- Faculty of Nursing
Hashemite University
Phone:+962796328487
Email: asemalhmoud@yahoo.com

Abstract

Objective: This paper reviews current literature of stress and coping among psychiatric nurses to gain more information about psychiatric nursing job stress, coping strategies, and the relationship between job stress and coping strategies.

Method: Published research was systemically retrieved, interrogated, and analyzed.

Result: Twenty studies met the inclusion criteria. The present review of nursing literature has highlighted a dearth of studies addressing stress and coping in psychiatric nurses. This limits the ability to compare and synthesize findings. However, the published studies paint a picture of psychiatric nurses' experiences related to workplace stress and interpersonal relationships, particularly with patients and colleagues. These stressors can lead to poor health and daily functioning. Nurses also experience job dissatisfaction and report their intention to change profession as a result of work-related stress. Psychiatric nurses use mainly problem-focused strategies to deal with work stress. Commonly used problem-focused strategies include problem orientation and social support. Overall, psychiatric nurses perceive social support, particularly family support, as an essential component in their coping with stress. It is recommended that health organizations recognize the need to provide appropriate support to nurses, perhaps in line with western initiatives.

Discussion: There is no study that has been conducted on the topic in Jordan. Therefore, the research about this topic is a national and international priority. We hope, however, that the next few years will witness conducting some researches about this topic in Jordan in the light of current development in our national competencies that are qualified to conduct such research.

Key words: stress, coping, psychiatric, nurses, Jordan.

Introduction

Stress is a term often used by individuals in a variety of social, academic, and employment settings. However, nursing is a stressful profession that deals with intense human aspects of health and illness (Arafa et al., 2003). The presence of workplace stress among nurses is considered as a cost factor on the health care organization. According to the American Institute of Stress (AIS), stress is considered number one health problem in America. Recently it was estimated that the cost of stress is approximately $250 to $300 billion annually. This cost can involve absenteeism, diminished productivity, nursing turnover, short- and long term disabilities, workplace accidents, emotional problem, clinical incompetence, direct medical, legal, and insurance fees (ILO, 2000). Carson et al. (1995) concluded that the levels of work stress experienced by psychiatric nurses are unusually and especially high. While psychiatry nursing has similarities to other nursing specialties, it differs as staff have more intense relationships with their patients, engage in preventing self-harm, and often face higher levels of challenging behaviors in the environment (Dallender et al, 1999; Jenkins and Elliott, 2004). Many sources of stress in psychiatric nurses work have been identified, such as heavy workload, organizational structure, difficulties with patients, home/work conflict, and inter professional conflict , which lead to feelings of depression, helplessness and hopelessness. The link between work stress and somatic complaints, coronary heart disease, alcoholism and attempted suicide has also been well documented (McVicar, 2003 & Tully, 2004).

Although the stress in the psychiatric nurses' environment can affect the care provided and contribute to burnout (Currid, 2008), it is still

very prevalent. According to the Royal College of Nursing (2005), forty percent of nurses in acute mental health care show signs of psychological ill health, and fourteen percent of them are classified as in distress. Despite these significant and dangerous outcomes, studies into stress in mental health nursing are few, and studies specifically looking at acute mental health nurses are even fewer (Currid, 2008). So, the fact that there is little known about stress in acute mental health inpatient nurses, and its dangerous effects on the nurses' health and their profession, made it a very significant topic.

Few studies have been conducted in Jordan about stress and coping among Jordanian nurses. For example, Hamaideh, Mrayyan, Mudallal, Faouri and Khasawneh (2008) conducted a study about Jordanian nurse's job stressors and social support. However, there is not any study conducted in Jordan to explore psychiatric nurse's stressors and their coping methods to deal with the every day life difficulties present in their job.

When implementing strategies to improve acute wards, it is important that we also look at wellbeing of staff who deliver the care to the vulnerable patients in this specific area of nursing (Currid, 2008). Psychiatric nurses need to manage their stress and keep themselves well before they can provide care for the clients. To reduce nurse's job stress, first we need to recognize the impacts of job-related stress and make use of the most effective coping methods to manage it (Wang, Kong, & Chair, 2009).

The purpose of this literature review is to gain more information about psychiatric nursing job stress, coping strategies, and the relationship between job stress and coping strategies through identifying factors contributing to stress in psychiatric nurses, the effects of stressors on nurses' health and the various coping strategies employed by them.

Methods

The analysis was conducted in two parts. The first part focused on stressors and stress outcomes, whereas the second component reviewed research examining coping strategies.

Search strategies

Most popular were multiple databases searches, followed by individual database searches and online search engines. Multiple databases searches were conducted by searching EBSCOhost Web: Academic Search Complete, CINAHL, MEDLINE, Education Research Complete, Psychological and Behavioral Sciences Collection, Professional Development Collection, ERIC, Research Starters-Education. The individual database searches were conducted using each of the following databases alone, SpringerLink, Oxford University Press Journals, Pubmed database, BMJ, CMA, BMC, and Scopus using the following keywords in various combinations: "nurse", "stress", "coping", "ways of coping", "ways of coping with stress for psychiatric nurses", and "occupational stress".

Inclusion and exclusion criteria

The literature search was based on a theoretical rather than on a systematic review format. This search strategy resulted in 25 articles of potential relevance to this review and all were obtained in hard copy. Each article was read in full and assessed for relevance to the review with reference to the following inclusion criteria: English language publication; primary research paper; research that measured stress and/ or coping as outcomes; and psychiatric nurses. Seven studies were excluded from the final review. These included non-nursing participants and/or outcomes other than stress and/or coping.

Nursing Job Stress

Lazarus and Folkman (1984) defined stress as "any situation in which internal demands, external demands, or both, are appraised as taxing or exceeding the adaptive or coping resources of an individual or group".

In nursing, stress of working nurses is a worldwide issue and its prevalence is high. Gray-Toft (1981) investigated the causes and effects of nursing stress in the nursing workplace setting. It was hypothesized that the sources and frequency of stress experienced by nursing staff were functions of the type of unit on which they worked, levels of training, trait anxiety, and socio-demographic characteristics. It was also hypothesized that high level of stress would result in decreased job satisfaction and increased turnover among nursing staff.

Most studies on stress in nursing have focused on general nursing specialties, and relatively little awareness has been paid to psychiatric nurses. Psychiatry nursing has similarities to other nursing specialties, however, its difference is that psychiatric nurses have more deep relationships with their patients, engage in preventing self-harm and often face higher levels of challenging behaviors in the environment (Jenkins and Elliott, 2004), which cause excessive level of workplace stress to psychiatric nurses (Edwards & Burnard 2003). In addition mental health work is, in itself, inherently stressful and this has been documented; many studies provided a great deal of evidence to support the conclusion that the levels of work stress experienced by psychiatric nurses are unusually and especially high (Tully, 2004; Carson et al., 1995).

Research studies in psychiatry nursing identified several sources of stress; Sullivan (1993) found that violent incidents, potential suicide and observational practices are main sources in acute care staff. In contrast, Nolan (1995) identified heavy workload, organizational structure, difficulties with patients, home/work conflict, inter-professional conflict and professional self-doubt to be the most frequent. In addition Yada, Abe, Omori, Ishida, and Katoh (2009) identified

stressors for psychiatric department nurses, and compared the differing stress variables and levels of stress encountered in the acute ward and the recuperation ward. The results of this analysis found according to the correlations between demographics and nurses' stressors; that Nurses' stressors correlate significantly and positively with shift worked, level of education and model of nursing care provision.

Boey et al. (1997) examined work stress in 1043 nurses from three public hospitals and found that one-third of this population reported extreme work stress due to staff shortages and high demands from work resulting in work overload as the most stressful situation for nurses. In addition to these causes Lateef et al. (2001) in a sample of 80 emergency nurses reported more than half of their sample rated stress levels as "moderate to extreme" and almost one-fifth of nurses experienced stress daily resulting from aggressive patient behavior, which was the most stressful experience. Furthermore, work-family conflicts were ranked last as a stressful contributor to work-related situations (Chan et al., 2000). Staff in acute mental health care are frequently subjected to violent and aggressive behaviors from patients (Currid, 2009). In addition, psychiatric nurses who are working on locked units provide care for clients who require increased observation and complex treatment modalities. This exposes these psychiatric nurses to a variety of difficult work-related stressors (White, 2006). Moreover, Edwards and Burnard (2003) mentioned many sources of stress among psychiatric nurses as administration and organizational concerns, client-related issues, heavy workload, staffing levels, inter professional conflict, financial and resource issues, professional self-doubt, and home/work conflicts.

White (2006) classified occupational stressors among psychiatric nurses into two major sources, external and internal. He also divided external

stressors into major life events, hassles and uplifts, occupational stressors such as patient demands, organizational and managerial issues, staffing, future concerns, job satisfaction, and adverse physical conditions such as hot or cold temperatures and pain. In addition, he divided internal stressors into physical and psychological influences. Physical influences such as trauma, infections, and inflammation. Psychological influences such as fear, uncertainty, intense worry, and unfulfilled anticipation (White, 2006).

According to Currid (2008), the acute mental health wards are busy, challenging and much criticized environments. Stress experienced at work by the psychiatric nurse is related to many factors such as dealing with disturbed and unpredictable patients, having a lack of promotion prospects, having to deal with colleagues who do not do their share of the work, and having too little time to plan and evaluate treatment (White, 2006). Additional sources of stress for psychiatric nurses include feeling professionally isolated, particularly when required to respond to crises and suicidal clients, difficulties in communicating with one's colleagues and managers, lack of adequate communication and support from fellow professionals, and the lack of personal safety particularly when working with unpredictable and potentially violent clients (Leary et al., 1995).

White (2006) mentioned the most frequently reported stressors by psychiatric nurses include dealing with difficulties that occur when they try to take action against incompetent staff, inadequate staffing coverage in potentially dangerous situations, and having to deal with colleagues who do not do their share of the workload. He also mentioned some of the less frequently reported stressors include having to deal with potentially suicidal patients, feeling inadequately trained to deal with violent patients, having to deal with disturbed and unpredictable patients,

and having insufficient training to work with difficult patients.

In addition, Shen, Cheng, Tsai, Lee, and Guo (2005) reported that the occupational stress among psychiatric nurses in Taiwan was associated with young age, widowed, divorced, or separated marital status, high psychological demands, low work support, and threat assault at work. Moreover, Shen et al. (2005) stressed that the threat of being attacked has become the most important source of stress among psychiatric nurses.

Konstantinos and Christina (2008) identified the number of stressors for mental health nurses working in hospitals included the poor professional relationships as the lack of collaboration between doctors and mental health nurses, conflicts between nurses and doctors, and lack of doctors' respect for nurses' opinions and their participation in decision making about patients' care. Konstantinos and Christina (2008) also mentioned that mental health nurses are become stressed by difficulties in relationships and conflicts with other staff nurses they work with.

Happell (2004) proposed that the workload was the highest perceived stressor for psychiatric nurses, followed by inadequate preparation. In addition to organizational issues, lack of nursing staff was also found to be directly related to the mental health nurses' stress (Konstantinos & Christina, 2008).

As evidenced by the previous literature, the sources of stress for psychiatric nurses working in different settings are complex and not limited. However, most of the literature focused on the risk of violent and aggressive patients, the complex treatment modalities and therapies, organizational concerns, heavy workload, poor professional relationships, communication and collaboration, lack of staff, low work support, and inadequately trained staff.

Very few studies have been performed in Jordan addressing job stress. Hamaideh et al. (2008) in their study about Jordanian nurses' job stressors and social support examined the stressors that Jordanian nurses commonly face in their work setting, social support they received to decrease the influence of these stressors and the relationships between Jordanian nurses stressors and the sample's characteristics. The researchers used a descriptive co-relational research design; a convenience sample of 464 Jordanian nurses who were working in 13 Jordanian hospitals participated in this study. The analysis showed the workload, dealing with issues of death and dying, and conflict with physicians were the most prevalent stressors among Jordanian nurses. In a similar study, Mrayyan in 2009 explored differences between Intensive Care Units (ICUs) and wards in regard to Jordanian nurses' job stressors and social support behaviors as well as predictors of the two concepts. High job stressors and low social support behaviors were evidenced in Jordan. Job stressors were higher in ICUs than those in wards, thus more social support behaviors should be provided to nurses in ICUs. Nurses' stressors should be assessed and managed. In all settings in general and in ICUs in particular, nurse managers should use various social support behaviors to buffer the influence of job stressors on nurses. In contrast there is no study investigating job stress among psychiatric nurses.

Several studies showed that chronic stress might result in increased morbidity and mortality. As a result, nurses bear an increased risk of certain diseases (McNeely, 2005). In addition, the excessive and persistent stress result in deterioration in an employee's adequate adjustment with various dimensions of professional life and personal life (Kumari & Mishra, 2009). Signs and symptoms of stress, however, differ among individuals ("Help guide", 2007).

Help guide (2007) proposed the consequences of stress on psychiatric nurses' health. The negative symptoms consequent of workplace stress include cognitive, physical, emotional, and behavioral symptoms. The cognitive symptoms include memory problems, poor judgment, indecisiveness, inability to concentrate, seeing the negative side of an issues, loss of objectivity, anxiety, racing thoughts, constant worrying, trouble thinking clearly, and fearful anticipation that something will happen. The physical symptoms include headaches, muscle tension and stiffness, diarrhea or constipation, nausea, dizziness, insomnia, chest pain, rapid pulse, weight gain or loss, skin breakout, and frequent colds. Moreover, the emotional symptoms include moodiness, agitation, restlessness, short temper, irritability, impatience, inability to relax, feeling tense, feeling overwhelmed, sense of isolation, and depression. Finally, the behavioral symptoms include sleeping disturbance, eating pattern disturbance, neglecting responsibilities, procrastinating, overdoing activities, substance abuse, jaw clenching, and overreacting to unexpected problems, and picking fights with other.

In addition, Fagin, Brown, Bartlett, Leary, and Carson (1995) proposed the consequences of stress on psychiatric nurses' job performance through psychiatric nurses with high level of stress are more likely to have a higher number of days off sick, have lower self-esteem scores and feel unfulfilled in their work. This also affects their relationships with clients, especially in their ability to empathize with their problems. Furthermore, Kumari and Mishra (2009) cited that problems from stress are especially relevant to poor job performance, lowered level of self esteem resentment of supervision, inability to concentrate and make decisions, and job dissatisfaction. These outcomes of stress can have direct cost effects on the organization.

Coping

Coping is defined as the cognitive and behavioral efforts made to master, tolerate or reduce external and internal demands and conflicts (Folkman & Lazarus 1980). Studies on coping in nurses have revealed several significant findings.

Coping behaviors are generally classified as problem-oriented (long-term) or affective-oriented (short-term) methods. The problem-oriented strategies are those used to solve stress-producing problems, whereas the affective-oriented manage the emotional component involved. Short-term coping methods (eating, sleeping, and smoking) reduce tension temporarily but do not deal directly with the stressful situation. Drawing on past experience and talking it out with others are examples of long-term stress-reduction methods (White, 2006).

Most nurses engage in positive, problem-focused coping: the ability to develop a strategy that addresses the cause of the stress and is considered to be the most effective strategy to deal with stress (Bennett et al. 2001; Carson et al. 1999; Dallender et al. 1999). Folkman & Lazarus (1980) have also hypothesized that some people tend to use emotion-focused coping, a strategy considered to be less effective in reducing stressful demands. Emotion focused coping deals with the unpleasant emotional effects of stress rather than finding a way to upgrade its cause. Strategies include distancing from the problem, avoiding stressful situations and exercising self-control over feelings and behaviors (Lambert et al. 2004). However, focused coping strategies may have negative outcomes, some studies have indicated that using distancing and self-control may actually predict better mental health in nurses (Folkman et al. 1986; Lambert et al. 2004).

Stress outcomes can be either positive or negative depending on the effectiveness of coping. If the

individual copes effectively with the internal or external stressor, the individual will experience a positive outcome. If the individual is unable to cope with the stressor effectively, then a negative outcome will result (White, 2006).

Most people use a mixture of these coping styles and this is reflected in the literature. For example, Lateef et al. (2001) found that Singaporean nurses used a variety of coping strategies in stressful times. Five top coping strategies were identified: planning actions from past experiences; talking to friends and colleagues; going for a holiday; having adequate rest; and diversional therapy. Approximately three-quarters of nurses would approach a colleague or senior staff member for help if they needed someone to talk to, indicating that social support at work is an important strategy in dealing with work stress.

Problem orientation is similar to Folkman and Lazarus's (1988) Planful Problem Solving where efforts are aimed at resolving the problem situation. Problem-focused strategies among stress-resistant nurses mainly were used (Boey, 1998; 1999). These included scrutinizing the problem, managing time efficiently and adjusting workload. In addition, these resilient nurses were able to maintain good mental health by seeking and receiving greater support from family relationships than highly stressed nurses who did not have high levels of support from their families. In contrast, distressed nurses who exhibited more psychological symptoms used more negative strategies such as suppression of feelings and blaming others. Nurses who engaged in problem-focused strategies had a better mental health status as measured by the General Health Questionnaire (GHQ-30) and higher self-esteem and internal locus of control (Boey, 1999). These findings concur with Chan et al.'s (2000) study of work stress and family support in working professionals. They found nurses

who have above average scores for family support reported fewer negative health symptoms.

Tysona et al. (2002) described three types of coping strategies among hospital nurses. The first one is the problem-solving strategy, which includes defining goals, planning and searching for alternative solutions. The second strategy is the social support strategy, which is the tendency to turn to others for advice, communication, and comfort. The last one is the avoidance strategy, which involves physical or psychological withdrawal through distraction or fantasy.

Coping with Stress among Psychiatric Nurses

Addressing methods of coping among psychiatric nurses may help to increase an individual's ability to cope effectively and as a result, reduce experienced levels of stress and burnout (White, 2006). Therefore, how psychiatric nurses cope with job stress is an important concern. This concern is not only for the psychiatric nurses themselves but also for the organizations, since job stress leads to burnout, illness, absenteeism, poor morale of staff, and reduction in their efficacy and productivity (Coyle et al., 2000). In addition, psychiatric nurses utilizing effective coping methods frequently experienced less stress (White, 2006).

Wang et al. (2009) described three frequently used methods by nurses to cope with stress that are evasive (avoidant activities used in coping with a situation), confrontive (confront the situation, face up to the problem, constructive problem solving), and optimistic (positive thinking, positive outlook, positive comparisons).

White (2006) reported that psychiatric nurses favored informal approaches to coping with the occupational stress. These approaches include having pastimes and hobbies outside of work, knowing that life outside of work is

healthy, enjoyable and worthwhile, looking forward to going home at the end of the day, having a stable home life that is kept separate from their work life, and having confidence in one's abilities to do the job well.

White (2006) conducted a study on 46 psychiatric nurses, and reported that the most coping strategies often used by the psychiatric nurses working on locked units is having pastimes and hobbies outside work, and the second most often utilized coping strategy was knowing that life outside of work is healthy, enjoyable and worthwhile. On the other hand, the least utilized coping strategy was having confidential one-to-one supervision, and the second least utilized coping strategy was having team supervision.

Interestingly, Coyle et al. (2000) conducted a study on 640 community psychiatric nurses, and reported the same results. The study reported that most methods of coping with occupational related stress are knowing that life outside of work is healthy, enjoyable and worthwhile and having a stable home life that is kept separate from the work life. In addition, the least methods used are confidential one-to-one supervision, and the second least utilized coping strategy was having team supervision. The study stressed that there are some coping strategies built upon structures available within the psychiatric nurses' workplace such as supervision and staff support group.

Reininghaus, Craig, Gournay, Hopkinson, and Carson (2007) explored specific stress resistance resources utilized by psychiatric nurses subjected to physical assault and other related stressors. They found that self-esteem, self-con?dence, and coping met the criteria of general stress resistance resources. They also concluded that assaulted psychiatric nurses who have a supportive manager scored lower on psychological distress than non-assaulted nurses who have an unsupportive manager. This study indicates that psychiatric nurses can

cope with work stressors effectively using the supportive system in the area that they work with.

Edwards and Burnard (2003) conducted a systematic review to determine the effectiveness of stress management methods that mental health nurses utilize. They reported that the most frequently reported coping strategies utilized by mental health nurses were social support, having stable relationships, recognizing limitations, dealing with problems immediately they occur, fitness levels, peer support, personal strategies, supervision, good home life with family and partner and interests outside of work. The researchers also reported that the factors associated with increased use of coping skills are being female, particularly for social support and emotional comfort, more experience in the field, being older, jobs security and work setting.

One inadequate way of coping strategy utilized by psychiatric nurses to cope with stress is to consciously or unconsciously distance themselves from the source of stress. This coping mechanism has negative effects on the therapeutic relationship between the psychiatric nurse and the client if psychiatric nurses are still distant or indifferent to their patients (Fagin et al., 1995).

Fagin et al. (1995) explored the effects of six coping strategies utilized by psychiatric nurses to alleviate work stress, that are social support (help from peers), task strategies (ways of organizing work), logic (using a detached approach), time (awareness and management), involvement (identification with work aims), and home and work relationships (the balance between home and work). The study concluded that all of the six coping strategies were effective to alleviate work- related stress except the logic (using a detached approach).

Other study reported that the methods for coping with stress among psychiatric nurses include efficient management of time, planning for team meetings and the construction of support networks in addition to improvements in communications both within and between determent professional disciplines (Leary et al., 1995).

Tully (2004) focused his study on students of psychiatric nurses and mentioned that they experience stress as any other qualified nurses. In addition, he found that psychiatric nurse students owned limited coping skills such as: wishing things were different, comfort eating, drinking, smoking or taking medications, and by taking it out on others and/or trying to forget it.

Tully (2004) also reported that psychiatric nurse students who reported lower levels of distress on the General Health Questionnaire (GHQ-30) tended to use more appropriate problem-solving methods of coping such as; talking to others, getting help, seeking advice and following it, changing things so that the situations may improve and taking things one step at a time.

Fothergill, Edwards, & Burnard (2004) conducted a systematic review to find out the effectiveness of stress management interventions for those working in the psychiatric profession. They mentioned two coping strategies utilized by mental health staff that include support from colleagues and outside interests.

As evidenced by the literature about ways of coping with stress among psychiatric nurses, the mostly used methods of coping are informal methods such as pastimes and hobbies outside of work. This indicates that there is a gap in the health care organizations as they rarely help psychiatric nurses to cope with their stressors. On the other hand, the most formal coping strategy that is reported to be effective is the managerial and peer support although it is reported as one of the least frequently used coping methods.

Conclusion

Job stress and coping among psychiatric nurses are essential for both individuals and organizations. Although stress and coping are very significant topics, very little research about this topic is available throughout the world. The present review of nursing literature has highlighted a dearth of studies addressing stress and coping in psychiatric nurses. This limits the ability to compare and synthesize findings. However, the published studies paint a picture of psychiatric nurses' experiences related to workplace stress and interpersonal relationships, particularly with patients and colleagues. These stressors can lead to poor health and daily functioning. Nurses also experience job dissatisfaction and report their intention to change profession as a result of work-related stress. Psychiatric nurses use mainly problem-focused strategies to deal with work stress. Commonly used problem-focused strategies include problem orientation and social support. Problem orientation is directed at resolving work-related issues, whereas social support acts as a form of emotional coping for nurses. Overall, psychiatric nurses perceive social support, particularly family support, as an essential component in their coping with stress. It is recommended that health organizations recognize the need to provide appropriate support to nurses, perhaps in line with western initiatives.

In addition, no study has been conducted about it in Jordan. Therefore, research about this topic is a national and international priority. We hope, however, that the next few years will witness the conducting of some research about this topic in Jordan in the light of current development in our national competencies that are qualified to conduct such research.

References

Arafa MA et al. (2003). Predictors of psychological well-being of nurses in Alexandria, Egypt. International journal of nursing practice, 9:313-20.

Bennett, P., et al. (2001) Stress in nurses: coping, managerial support and work demand. Stress and Health, 17, 55-63.

Boey KW, Chan KB, Ko YC, Goh LG, Lim GC. (1997). Work stress and psychological well-being among the nursing profession. Singapore Med. J.; 38: 256-260.

Boey KW. (1998). Coping and family relationships in stress resistance: a study of job satisfaction of nurses in Singapore. Int. J. Nurs. Stud; 35: 353-361.

Boey KW. (1999). Distressed and stress resistant nurses. Issues Ment. Health Nurs. ; 19: 33-54.

Carson J., Fagin L. & Ritters S. (1995) Stress and Coping in Mental Health Nursing. Chapman & Hall, London.de

Carson, J., et al. (1999) Burnout in mental health nurses: much ado about nothing? Stress Medicine, 15, 127-134.

Chan EY, Morrison P.(2000). Factors influencing the retention and turnover intentions of registered nurses in a Singapore hospital. Nurs. Health Sci.; 2: 113-121.

Chan KB, Lai G, Ko YC, Boey KW. (2000). Work stress among six professional groups: the Singapore experience. Soc. Sci. Med.; 50: 1415-1432.

Coyle, D., Edwards, D., Hannigan, B., Burnard, P., & Fothergill, A. (2000). An explanation of the coping strategies used by community psychiatric nurses in Wales. Nursing and Health Sciences, 2, 59-67.

Currid, T. (2008). The lived experience and meaning of stress in acute mental health nurses. British Journal of Nursing, 17, 880-884.

Currid, T. (2009). Experiences of stress among nurses in acute mental health settings. Nursing Standard, 23 , 40-46.

Dallender J, Nolan P, Soares J, Thomsen S, Arnetz B (1999). A comparative study of the perceptions of British mental health nurses and psychiatrists of their work environment. J Adv Nurs 29(1): 36-43

Edwards D. & Burnard P. (2003). A systematic review of stress and stress management interventions for mental health nurses. Journal of Advanced Nursing 42, 169-200.

Fagin, L., Brown, D., Bartlett, H., Leary, J. & Carson, J. (1995). The Claybury community psychiatric nurse stress study: is it more stressful to work in hospital or the community? Journal of Advanced Nursing, 22, 347-358.

Folkman, S. & Lazarus, R.S. (1980) An analysis of coping in a middle-aged community sample. Journal of Health and Social Behavior, 21 (3), 219- 239.

Folkman, S., et al. (1986) Dynamics of a stressful encounter: cognitive appraisal, coping and encounter outcomes. Journal of Personality and Social Psychology, 50, 992-1003.

Folkman, S. & Lazarus, R.S. (1988) Ways of Coping Questionnaire: Sampler Set, Manual, Test Booklet, Scoring Key. Consulting Psychologists Press, Redwood City, CA.

Folkman, S. (n.d.). Ways of coping (revised). University Of California, San Francisco, USA. Retrieved 12 April 2011 from

http://www.caps.ucsf.edu/tools/surveys/pdf/Ways%20of%20coping.pdf

Fothergill, A., Edwards, D., & Burnard, P. (2004). Stress, burnout, coping and stress management in psychiatrists: Findings from a systematic review. International Journal of Social Psychiatry, 50, 54-65.

Gray-Toft, P., Anderson, J., (1981). The nursing stress scale: development of an instrument. Journal Behavioral Assessment 1, 11-23.

Hamaideh S, Mrayyan M, Mudallal R, Faouri I, & Khasawneh N. (2008). Jordanian nurses' job stressors and social support. International Nursing Review, 55, 40-47.

Happell, B. (2004). Stress, burnout, and job satisfaction in rural psychiatric nurses: A Victorian study. Australian Journal of Rural Health, 12, 120-125

Help Guide. (2007). Understanding stress: Sign, symptoms, causes and effects. Available from: http://www.helpguide.org/ mental/ stress_ signs.htm.

Jenkins R, Elliott P (2004) Stressors, burnout and social support: nurses in acute mental health settings. J Adv Nurse 48(6): 622-31

Konstantinos, N., & Christina, O. (2008). Factors influencing stress and job satisfaction of nurses working in psychiatric units: a research review. Health Science Journal, 2, 183-195.

Kumari, P., & Mishra, R. (2009). Effect of job stress and personal life stress on mental health and job outcomes of medical professionals. Available at http://poseidon01.ssrn.com/delivery.php

Lateef, F., Ng, A., and Anantharaman, V. (2001). Stress among nurses in the emergency department. Singapore Nurs. J. ; 28: 22-26.

Lambert, V., Lambert, C., & Itob, M. (2004).Workplace stressors, ways of coping and demographic characteristics as predictors of physical and mental health of Japanese

Lazarus, R. S., & Folkman, S. (1984). Stress, Appraisal and coping; Springer publishing Co, New York. Retrieved 12 April 2011 from

http://paracite.eprints.org/cgibin/openurl.cgi?sid=paracite&date=1984&aufirst=RS&aulast=Lazarus&genre=book&atitle

Leary, J., Gallagher, T., Carson, J., Fagin, L., Bartlett, H., & Brown, D. (1995). Stress and coping strategies in community psychiatric nurses: A Q-methodological study. Journal of Advanced Nursing, 21, 230-237.

McNeely, E. (2005). The consequences of job stress for nurses' health: Time for a check up. Nursing Outlook, 53, 291- 299.

McVicar, A. (2003). Workplace stress in nursing: a literature review. Journal of Advanced Nursing 44(6), 633-642.

Mrayyan, M. (2009). Job stressors and social support behaviors: Comparing intensive care units to wards in Jordan. A journal for the Australian nursing profession, 31, 163-75

Nolan, B. (1995). Sleep disturbances in Parkinson's disease. The comprehensive management of Parkinson's disease. New York.

Reininghaus, U., Craig, T., Gournay, k., Hopkinson, P., & Carson, J. (2007). The high secure psychiatric hospitals' nursing staff stress survey 3: identifying stress resistance resources in the stress process of physical assault. Personality and Individual Differences, 42, 397-408.

Royal College of Nursing. (2005). At breaking point? A survey of the wellbeing and working lives of nurses in 2005. Retrieved 12 April 2011 from http://www.rcn.org.uk/__data/assets/pdf_file/0003/78690/003021.pdf

Shen, H., Cheng, Y., Tsai, P., Lee, S., & Guo, Y. (2005). Occupational stress in nurses in psychiatric institutions in Taiwan. Journal of Occupational Health, 47, 218-225.

Sullivan, P. (1993). Communication skills training for interactive sports, The Sport Psychologist, 7(1), 79 - 91.

Tully A. (2004) Stress, sources of stress and ways of coping among psychiatric nursing students. Journal of Psychiatric and Mental Health Nursing 11, 43-47.

Tysona, P., Pongruengphant, R., & Aggarwal, B. (2002). Coping with organizational stress among hospital nurses in Southern Ontario. International Journal of Nursing Studies, 39, 453-459.

Wang, W., Kong, A., & Chair, S. (2009). Relationship between job stress level and coping strategies used by Hong Kong nurses working in an acute surgical unit. Applied Nursing Research, 101, 176 - 193.

White, R. (2006). Perceived Stressors, Coping Strategies, and Burnout Pertaining to Psychiatric Nurses Working on Locked Psychiatric Units (Unpublished master's thesis). Eastern Michigan University. Ypsilanti, Michigan.

Yada H, Abe H, Omori H, Ishida Y, Katoh T.(2009). Stressor among nurses in a psychiatric department--comparison between acute and recuperation wards, J UOEH. ;31(3):293-303.