

The Significance of Sense of Coherence for the Perceptions of Task Characteristics and Stress During Interruptions Amongst a Sample of Public Health Nurses in Hong Kong: Implications for Nursing Management

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Abstract The study aimed to investigate the significance of sense of coherence (SOC) for the perceptions of task characteristics and for stress perceptions during interruptions of public health nurses (PHNs) with children in Hong Kong. The research design employed the experience sampling method. Convenience sampling was used to recruit 20 subjects. During stage one of the study a watch was worn that gave a signal at six random times each day for seven days to complete an experience sampling diary. PHNs on average responded to 34 signals (80%) to complete the diaries which collected data on work and family juggling, task characteristics, and their effects on mood states. At stage two respondents completed the SOC scale which measured confidence in life as comprehensible, manageable, and meaningful. Two major findings provide the focus for this paper. First, results indicate that there was positive correlation between SOC and perceived task characteristics. Second, results reveal that when interruptions occurred, PHNs with high SOC had higher positive affect and lower negative affect than PHNs with low SOC. These results suggest that SOC as a salutogenic model helps PHNs to cope with the family and work juggling as well as the occupa-

tional stress. Implications for nursing management on strengthening SOC of PHNs are discussed.

INTRODUCTION

Nursing management is faced with the challenge of identifying ways to curb the high turnover rates and low morale of nurses (Buchan, 1994; Royal College of Nursing, 1993). Despite considerable empiric evidence on nursing as a stressful and emotionally demanding job (Smith, 1992), there is minimal information available to help nurses identify the most appropriate coping strategies to meet the challenge of occupational stress and work-family juggling. Nurses who find it difficult to cope with the stress suffer from constant ill effects such as high turnover rate, increased absenteeism, and poor performance (Buchan, 1994; Seccombe & Buchan, 1993). Sense of coherence (SOC), as a salutogenic model that highlights factors contributing to health (Antonovsky, 1996), has provided an explanation for why some people facing stress select the most appropriate coping style and stress management strategy according to the demands of the situation. Although some initial research is available on the stressors arising from work as well as work-family juggling among female nurses with children (Ray & Miller, 1994), there is no research available on the role of SOC as a coping strategy for female nurses with children.

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BACKGROUND TO THE STUDY

Sense of Coherence: A Salutogenic Approach to Stress Management

Sense of coherence (SOC) is a relatively new construct proposed by Antonovsky (1987) to predict effective coping and good health. He defines SOC as not a particular personality trait or coping style but rather a dispositional orientation. It is composed of three components: comprehensibility, manageability, and meaningfulness. The construct explains that individuals with high SOC have the confidence that the world is understandable and makes sense to them (comprehensibility), have resources available for meeting the demands that they face (manageability), and are worthy of taking action on the demands, which have meaning in their lives (meaningfulness).

Unlike other coping models, which may vary from culture to culture and situation to situation, Antonovsky argues that strong SOC will allow one to "reach out, . . . apply the resources appropriate to that stressor" (1996). He uses the word "salutogenic" to highlight the main character of SOC as well as differentiate it from the "pathogenic" approaches to coping (1987). In other words SOC does not study what stressors will lead to what ill health but rather what salutary factors keep people physically and emotionally healthy in the face of stressful events.

To date, more than 80 research studies using SOC as one of the instruments have been identified in a literature review. The majority of these studies relate to clinical and applied psychology; results support that SOC predicts good health and positive adjustment (Rena, Moshe & Abraham, 1996). Due to the recent nature of the construct, only a few studies focused on work stress. Ryland & Greenfeld, (1991) undertook a correlated study of 302 faculty members to measure the relationship between perceived work stress measure and the general well-being measure using the SOC scale. The findings concluded that SOC enhanced well-being. Palsson, Hallberg, Norberg & Bjorvell (1996) studied 33 Swedish district nurses to examine the relationship between burnout, empathy, and SOC. The results showed that SOC was positively correlated with empathy and negatively correlated with burnout. Lewis, Campbell, Beckett, Cooper, Bonner & Hunt (1992) studied 238 dialysis nurses in the United States to examine the relationship among work stressors, burnout, and SOC. Results indicated that work overload was the major contribution to overall stress and burnout and supported SOC as salutogenic. Lewis, with other colleagues (1994), studied another sample of 49 dialysis nurses. Results indicated that there was a positive correlation between personal and work-related stress, especially with work load. The findings of both studies demonstrated SOC as a powerful predictor of coping and a mediating factor in stressful events at work.

Indeed the findings supported the notion that the higher the SOC scores, the lower the perceptions of work stress and the better utilization of coping resources.

Public Health Nurses: Occupational Stress and Work and Family Conflicts

Nursing has been well documented as a high stress occupation in the literature (Chung, 1996; Farrington, 1995; Walcott-McQuigg & Ervin, 1992). The relationship between stress and disease has been empirically demonstrated in nursing as well as in other occupations (Lazarus, 1971; Norrie, 1995). Many researchers also demonstrate the positive relationship between high stress and less than desirable performance (Baglioni, Cooper & Hingley, 1990). Health visitors in the United Kingdom were found to be the most dissatisfied among all nurses working in the community in terms of personal satisfaction, workload, as well as pay and prospects (Royal College of Nursing, 1993). Research evidence from both nurse administrators (Seccombe & Buchan, 1993) and industrial and organizational psychologists (Griffin & Bateman, 1986) indicates that job dissatisfaction is related to job stress and is significantly predictive of workers' turnover, absenteeism, and performance.

Public health nursing in Hong Kong has evolved from the model of health visiting practice in the UK (Department of Health, 1993). The recommendations of the Scott Report (Wong, 1996), which gave rise to the Department of Health in 1989, and is currently the primary employer of public health nurses (PHNs), created a number of challenges for public health nursing. This reorganization coincided with the restructuring in the public health service provision following the recommendations of the report on primary health care (Working Party of Primary Health Care, 1990). These recommendations included a shift from bureaucratic to consumer-oriented service as requiring PHNs to act as a change agent for health promotion initiatives, as opposed to approaching clients as passive receivers of charitable services. This led to increasing demands with the management to maintain quality service with finite resources (Department of Health, 1994-95).

Although figures for turnover rate of PHNs are not published in Hong Kong, anecdotal evidence suggests that these rates are high, with many PHNs leaving the service because of difficulties of coping with the high demands of work as well as family. As in other countries the majority of nurses are female (Cyr, 1992) with less than 100 male nurses employed by the Department. For more than a decade researchers such as Vredenburg & Trinkaus (1983) have highlighted that as most nurses are female, family issues are more likely to be relevant to "work and career considerations." Indeed authors such as Ray & Miller (1994) suggest that nurses provide a fertile ground for the investigation of home and work conflict because of the

domination of women in the profession. However, research on the occupational stress of nurses has always focused on investigating work-based stressors (McGrath, Reid & Boore, 1989; Seccombe & Ball, 1992) thus missing the impact of work-family conflicts.

Health care executives, such as Towery (1992), suggest that the primary cause of burnout in women working in the health care industry is the constant juggling of work-family responsibilities. Many writers regard nurses as holding two jobs: a full-time homemaker and a part- or full-time healthcare worker (Greenglass, Pantony & Burke, 1989). A literature review identified only one published study related to the effects of nurses having dual careers. Ray & Miller (1994) conducted a survey of 119 female nursing assistants and charge nurses in a nursing home. The findings showed a positive association between home/work stress and burnout. One important finding was the effect of children on nurses' levels of stress. Interestingly, however, the study showed that the number of children was not significant.

In the arena of industrial and organizational psychology the impact of role juggling on working mothers has received increasing research interest. Williams, Suls, Alliger, Learner, & Wan (1991) used experience sampling method to study immediate emotions of 20 working mothers to role juggling. Results supported that role juggling had immediate negative effects on their subjects' emotional well-being as shown by higher negative affect and lower positive affect. Affect was measured by means of the self-rating of mood states of the two-factor structure of the affect model established by Watson & Tellegen (1985). Williams & Alliger (1994) also used the same research method to study immediate emotions of 41 working parents to role juggling. Results from these studies suggested that the high stress levels of working mothers could in part be explained by multiple role juggling, which involved simultaneously attending to demands of different roles.

Task Characteristics and Stress

Apart from multiple role juggling, research evidence also supports that task characteristics are major sources of stress. A study of 41 working parents found that tasks experienced as out of control and making no goal progress resulted in higher stress levels as shown by higher negative affect and lower positive affect (Williams & Alliger, 1994). Ganster defined personal control as the perceived "ability to exert some influence over one's environment so that the environment becomes more rewarding or less threatening" (1989). Indeed a sense of control is a very important determinant of psychological well-being in work or nonwork settings (Sauter, Hurrell & Cooper, 1989). According to the control theory of behavior (Carver & Scheier, 1981), interruption acts as a break in the sense of control. Carver &

Scheier (1990) advance the argument in control theory of behavior and propose that affect is a function of progress toward one's goal. It is suggested that when the perceived rate of progress toward a goal and perceived control is lower than desired, it contributes towards a negative affect.

Aim of the Study

This research project aimed to investigate the impact of multiple role juggling as well as the significance of SOC on the daily emotional experience of PHNs who have children in Hong Kong. Two objectives provide the focus for this paper. The first objective was to describe the relationship between SOC and the perceptions of task characteristics of goal progress and perceived control. The second objective was to assess the significance of SOC on PHNs' emotional experience when role juggling occurred. This study did not attempt to identify the objective test for role juggling, and therefore the respondents' perception of role juggling was used. To measure the immediate emotional experience of nurses, the mood states developed by Williams & Alliger (1994) were adopted to assess self ratings of affect.

METHOD

Experience Sampling Method

In order to fulfill the aim of this study, experience sampling method (ESM) was adopted as the research design. Larson & Csikszentmihalyi (1983), in developing this design, identified ESM as investigating how people feel, act, and think during their daily lives. It involves the systematic self-reporting of activities, thought content, and emotion at random occasions during waking hours of a normal week. The subjects typically wear a signaling device to remind them to fill out a diary. Sets of these diaries become the "archival file of daily experience" (Larson & Csikszentmihalyi, 1983). Many researchers highlight that the ESM is very appropriate for the study of reactions *in situ* (Hillbrand & Waite, 1994; Hormuth, 1986). Because the method collects data on individual subjects, it allows for within-subject as well as between-subject analyses (Epstein, 1983; cited in Hormuth, 1986). ESM also has strength over other methods such as survey and interview since the accuracy of the data of those methods relies heavily on memory and single global measures.

Subjects

Convenience sampling was used to recruit 26 PHNs from two programs completed in the 1990s through the alumni class representatives of the School of Public Health Nursing of the Department of Health. The selection criteria for the sample were female with one or more children, promoted to nursing officer, and in charge of a center, unit, or team.

