THE RELATIONSHIP BETWEEN NURSES' PERSONALITY AND STRESS LEVELS REPORTED WHEN CARING FOR INTERPERSONALLY DIFFICULT PATIENTS

Nick Santamaria, RN, RPN, BAppSc(AdvNsg), MEdSt, GradDipHealthEd, PhD, MRCNA, is Principal Research Scientist at Ambulatory and Community Services, The Alfred Hospital, and Senior Fellow in the School of Postgraduate Nursing, University of Melbourne, Australia

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ABSTRACT

The aim of this study was to investigate the self-reported stress in a group of nurses caring for patients with interpersonally difficult behaviours at four Melbourne hospitals. An examination was undertaken of the role played by the personality construct known as *Lifestyle*, in nurses' cognitive appraisal of interpersonal stressors. One hundred and ten nurses completed the Basic Adlerian Scales for Interpersonal Success, Adult Version (BASIS-A) personality inventory and the Difficult Patient Questionnaire (DPQ) and a subgroup of 40 nurses were subsequently interviewed. The interviews were analysed with the Alexis lexical thematic content analysis computer program using the Harvard III Psychosociological Dictionary. The results revealed no significant correlations between stress and the nurses' demographic or professional backgrounds. However, very specific and significant correlations between certain personality profiles and stress levels were detected. Lexical thematic content analysis indicated that nurses who reported high stress differed significantly from those reporting low stress in the psychological processes they used when caring for interpersonally difficult patients. These findings suggest that the personality construct of *Lifestyle* plays an important role in regard to the stress response of these nurses. The implications of the findings include the possibility of structuring interventions based on Individual Psychology that may assist nurses to better deal with interpersonal conflict in patient care, and hence to reduce their own stress levels.

INTRODUCTION

The care of patients who display interpersonally difficult behaviour presents nurses with significant challenges in providing high quality care and in maintaining their own wellbeing in the work environment. Nurses frequently report high levels of stress associated with the care of these patients.

The aim of this study was to investigate interpersonal stress in a group of registered nurses and to explore the possible cognitive mediating function of the personality construct of *Lifestyle* proposed by Individual Psychology (IP). Individual Psychology, which was originally developed by Alfred Adler, was chosen as the theoretical framework through which to explore stress in nursing. This framework provides a cognitive psychological perspective of personality that enables a consistency to be achieved with current theory on the appraisal of stressful situations. The term *Lifestyle*, as used by IP, relates to the individual's life goals and the manner in which he/she attempts to achieve them. The individual is regarded as always moving towards a goal in a characteristic and subjective manner. The particular themes represented in the individual's movement constitute the observable elements of *Lifestyle*. Mosak (1973) described an individual's *Lifestyle* as the cognitive framework in which the person selects the specific operations to cope with life tasks. Through this framework the person interprets, controls and predicts experience. It is believed that by investigating nurses' *Lifestyle* types it may be possible to gain an insight into the cognitive processes which are in operation when they are caring for patients who display interpersonally difficult behaviour.

LITERATURE REVIEW

Stress in nursing

It is generally acknowledged that nursing is an inherently stressful occupation. (Marshall 1980; Maloney 1982; Kelly and Cross 1985; Cross and Fallon 1985; Motowidlow et al 1986; Dewe 1987 and 1988; Power and Sharp 1988; Harris 1989; Sullivan 1993; Decker 1997). It is characterised by exposure to a wide range of potentially stressful situations and conditions, including high workloads, irregular and unsociable hours of work and tiredness; as well as the emotional demands of dealing with ill patients and their families, and patients who have difficult behavioural characteristics.

The conceptualisations of stress proposed by Lazarus and Folkman (1984) and De Longis, Lazarus and Folkman (1988) are of particular relevance in understanding the appraisal of stress by nurses caring for patients with interpersonally difficult behavioural characteristics. These authors highlight the central function of personality in the cognitive appraisal and response to a particular stressor. They also note that it is now considered more important to study frequently encountered lesser stressors, rather than previous approaches of concentrating on major life events as proposed by Holmes and Rahe (1967). For the purpose of this study, stress is defined as *'a relationship between the person and the environment that is appraised by the person as relevant to his or her wellbeing and in which the person's resources are taxed or exceeded'* (Folkman and Lazarus, 1985, p.150).

Difficult patients

It should be noted that the term 'difficult patient' is not intended as a pejorative term. Rather, it stems from the common usage by clinical nurses to identify patients who exhibit behavioural characteristics that result in the nurses experiencing some degree of discomfort during the provision of nursing care.

Difficult patients as a source of stress in nursing are a recurrent theme in the literature, however, there are few studies that identify the fundamental cognitive processes involved in the nurse/patient interaction and in the stress responses of nurses. The reason appears to be related to the majority of authors attempting to conduct broad-ranging examinations of stress in nursing, which aim to identify the spectrum of contributing factors rather than exploring one factor in depth.

Studies identifying difficult patients as significant sources of stress to nurses include Leatt and Schneck (1980), Marshall (1980), Kelly and Cross (1985), Cross and Fallon (1985), Motowidlow et al (1986), Dewe (1987;1988), Power and Sharp (1988), Harris (1989), Podrasky and Sexton (1988), Sullivan (1993), Santamaria (1993), Elovainio and Kivimaki (1996) and Wheeler (1998). There appears to be a general consistency in the literature regarding the types of patient behaviours that nurses regard as difficult. These behaviours include patients who are emotionally unstable, highly anxious, depressed, hostile, challenging, overly dependent or independent, aggressive, impatient, unappreciative and nonconforming.

Personality factors and the appraisal of stress

Lazarus and Folkman (1984) assert that to gain an understanding of psychological stress it is vital to examine the cognitive factors that influence the appraisal of a particular stressor. A central element of Individual Psychology is the concept of *Lifestyle*, which is thought to exert a major influence on how the person perceives his or her environment. Kern, Wheeler and Curlette (1993) note that *Lifestyle* plays a central role in one's coping with and responses to, stressful situations. The cognitive role of *Lifestyle* in the appraisal of stressors appears logically attractive, yet little research appears in the literature examining its possible mediating function in the cognitive appraisal of interpersonal stress.

METHOD

The study involved two phases. The first comprised a survey of 110 nurses who completed the Basic Adlerian Scales for Interpersonal Success, Adult Version (BASIS-A) inventory and the Difficult Patient Questionnaire (DPQ). The second involved conducting interviews with a subgroup of 40 nurses. The goal of phase one was to explore the relationships between the construct of *Lifestyle* as measured by the BASIS-A and the self-reports of stress as measured by the DPQ. The goals of the second phase of the study were to investigate the cognitive processes that may be involved in the stress response to difficult patients. Of the nurses that were interviewed, 20 were categorised as high stress and 20 as low stress on the basis of their DPQ scores. It was believed that, by exploring and comparing the cognitive processes of the high and low stress nurses, it may be possible to gain an understanding of how the two groups differ cognitively and of the role played by *Lifestyle* in the appraisal of stress for these nurses.

Design

A stratified, random, cross-sectional sample survey design was employed to determine the *Lifestyle* types and self-reported stress levels of 110 nurses. This was followed by semi-structured interviews with a subgroup of 40 nurses.

Subjects and setting

The subjects comprised 110 female registered general nurses (RNs) working in the acute care environments of four metropolitan hospitals in Melbourne. No male RNs were included in the study because they comprise only 6.49% of the total RN population in Victoria at the time of the research (FACTS 1996). It was believed that their inclusion could introduce a potentially confounding variable given the relatively small sample size of the study.

Sampling

To ensure that the subject population approximated the general population characteristics of nurses in Victorian public hospitals, a balanced stratified random sampling approach was employed. The strata comprised the first three employment grades of the Victorian nurses' career structure. Ten nurses from each grade were randomly selected from the personnel database at each hospital by applying a table of computer-generated random numbers to the final three digits of each nurse's employment number. This procedure provided a total of 120 (40 in each grade level) nurses in the final sample. Following institutional ethics approval for the study at each hospital, questionnaire packs were mailed to each nurse who was selected through the above process. Once initial scoring of the returned questionnaires was completed a subgroup of 40 nurses were categorised into either a low stress or high stress group and were subsequently interviewed by the investigator employing a structured interview schedule.

Measurement and instrumentation

The Basic Adlerian Scales for Interpersonal Success, Adult Form (BASIS-A) Inventory (Wheeler Kern and Curlette 1993) is a shortened and revised version of the Life Style Personality Inventory (LSPI). The BASIS instrument provides data on five *Lifestyle* themes: Belonging-Social Interest (BSI), Going Along (GA), Taking Charge (TC), Wanting Recognition (WR), and Being Cautious (BC). Subjects are required to respond on Likert scales to the accuracy of 65 statements relating to their childhood experiences.

Reliability and validity of the BASIS-A

Much of the data relating to the reliability and validity of the BASIS-A Inventory originates from testing carried out on the LSPI from which BASIS-A was derived. The size of the norm sample for BASIS-A was 1083. Criterion validity has been supported by Mullis, Kern and Curlette (1987) and Wheeler and Acheson (1993). BASIS-A contains specific questions to identify social desirability response bias resulting in increased confidence of *Lifestyle* categorisation.

Instrument measuring stress: The difficult patient questionnaire

The Difficult Patient Questionnaire (DPQ) was used to measure the self-reported stress of subjects to six difficult nurse/patient scenarios. This instrument is derived from the Difficult Patient Stress Scale (DPSS) developed by Santamaria (1995). The major difference between the instruments is that the DPQ requests less demographic data from the respondent than the DPSS. The six nurse/patient scenarios are identical. Each scenario describes a potentially difficult interaction between a nurse and a patient. The subjects are asked to read the scenarios and to imagine themselves as the nurse in the interaction. The subject then marks a 100 millimetre visual analogue scale (VAS) according to their stress reaction to the scenario. Each VAS has as its anchor point the statements: No stress and Most stress experienced. Santamaria (1995) describes the content, structure, reliability and validity of the DPQ scenarios.

Procedures used to score the DPQ results

Each completed questionnaire was scored by firstly recording the demographic data relating to: subject number, age, grade, hospital code, years since graduation as an RN and nursing qualifications. Secondly, each VAS was scored by measuring the distance in millimetres from the beginning of the scale to the point marked on the scale by the subject. These scores, which could range from 0 to 100 were recorded as individual variables. The scores for each of the six scenarios were added and recorded as the variable DPQ Total. The possible values for this variable ranged from 0 to 600. A further categorical variable for Stress Category was also created where scores were divided into High (301 to 600points), Moderate (200 to 300points) or Low (0 to 199 points).

Research questions

1. Is the stress related to caring for difficult patients mediated by the nurse's age, clinical experience in years or number of postgraduate qualifications?
2. Is the stress related to caring for difficult patients mediated by the predominant *Lifestyle* type?
3. Are there thematic differences in how subjects categorised as being either high or low stress describe their experiences with difficult patients?

Hypothesis

There will be statistically significant correlations between stress scores and *Lifestyle* type.

Analysis of data

Questions 1 and 2 and the hypothesis were tested by calculating Pearson's product moment correlation

coefficients for the dependent variables of DPQ stress subscale scores and the DPQ stress total score, with the independent variable of *Lifestyle* category and the BASIS-A *Lifestyle* subscale scores. Question 3 was explored by examining the lexical thematic content differences between high and low stress subjects and comparing the differences with t-tests for independent samples. All statistical procedures were carried out using SPSS V 8 software.

Interview procedures

A total of 40 subjects were interviewed on the basis of their DPQ scores. Twenty subjects with DPQ score above 300 (mean 333, range 301-473) were categorised as high stress, and 20 subjects with DPQ score below 200 (mean 119, range 16-186) were categorised as low stress. Each interview was conducted at a location of the nurse's choice using a semi-structured interview schedule and took approximately 30-45 minutes to complete. The analysis focussed on the responses of subjects to an open-ended question that asked them to describe a recent encounter with a difficult patient. The responses to the question comprised relatively long descriptions of a specific patient's behaviour and the nurse's thoughts, feelings and actions associated with the episode. These responses were isolated from the overall transcripts of each interview and grouped according to the previously described high and low stress categories. The goal was to explore the text for lexical thematic content differences.

By concentrating the thematic analysis on lexical differences it was possible to quantify and to statistically test the significance of the differences between the two groups. The analysis was conducted using the Alexis computer program, version 1.4 (McKenzie 1995) utilising the Harvard III Psychosociological Dictionary (Stone et al 1966). The Alexis program performs thematic content analysis according to processes defined by Martindale (1990) and Weber (1990). The program divides a text file into words and then searches for each word in a content analytical dictionary. The dictionary consists of thematic categories. Counts for each category are obtained and through this technique, thematic changes in a particular body of text over time, or thematic differences between texts can be analysed. The Harvard III Psychosociological Dictionary (Stone et al 1966) is described by McKenzie (1995) as a general purpose dictionary suitable for a wide variety of applications. The dictionary consists of over 3500 words, which can be classified into 55 mutually exclusive and 28 overlapping psychological categories. The Harvard III and its derivatives have been successfully used with psychological data by Rosenburg et al (1990; 1994), Schnurr et al (1993), Zimmerman (1987), Santamaria and O'Sullivan (1998) and Santamaria and McKenzie (2000).

RESULTS

Demographic characteristics of subjects

A total of 110 completed questionnaire packs were returned from the initial 120 nurses. The mean age of subjects was 28.1 years, (range 21-54, SD 6.85) which was consistent with the demographic characteristics of Victorian nurses (FACTS, 1996).

The mean number of years of clinical experience for the group was 5.45 (range 0.5-32), this relatively large range of years of clinical experience was a result of including subjects from each of the first three grades of registered nurse in the Victorian nurses' career structure.

Relationship between stress and age, experience and qualifications

The results presented in table 1 indicate that there were no significant correlations between the DPQ total stress score and the variables of age, years of experience and number of postgraduate qualifications.

Table 1: Correlation between DPQ stress score and subject age, years since graduation and number of postgraduate qualifications (n=110)

	DPQ stress total	P
Age	-0.1	0.12
Years registered	-0.12	0.11
Qualifications	-0.16	0.08

The results of the calculation of Pearson's product moment correlation coefficients for *Lifestyle* type BASIS-A subscale scores and DPQ subscale stress scores are presented in table 2. Significant negative correlations were found between the reported stress levels of *Lifestyle* type Belonging Social Interest (BSI) and DPQ3. Similarly, negative correlations were also found between *Lifestyle* type Going Along (GA) and DPQ1 and 3. Significant positive correlations were found between *Lifestyle* type Taking Charge (TC) and DPQ4 and between *Lifestyle* type Being Cautious (BC) and DPQ5. No significant correlations were found between any of the DPQ scenario sub scores and *Lifestyle* type Wanting Recognition.

Lexical thematic content differences

Table three displays the lexical thematic content differences between high and low stress groups. The analysis of interview transcripts indicated that five thematic variables were significantly different between the high and low stress groups.

Table 2: Correlations between BASIS-A scores and DPQ stress scores (n=110)

	BSI	GA	TC	WR	BC
DPQ1		-0.19†			
DPQ2					
DPQ3	-0.21†				
DPQ4			0.20†		
DPQ5					0.24†
DPQ6		-0.18†			
DPQ Tot					
†P = <0.05					

Table 3: Harvard III thematic content differences between high and low stress groups

Theme	Low Stress Mean (n=20)	High Stress Mean (n=20)	t	p
1. Small Group	0.2014	0.4100	2.14	0.04
2. Large Group	0.5129	0.1995	2.23	0.03
3. Action Norm	0.6043	0.3586	2.23	0.04
4. Think	3.8690	2.9471	2.97	0.04
5. Guide	0.7271	0.3714	1.98	0.005

Small group (theme 8)

This theme is classed broadly under the *Social Realm* category and specifically in the *Collectivities* subgrouping of the dictionary. It is descriptive of groups where members are usually able to have face to face interactions. Subjects included words such as family, group, couple and staff. Low stress subjects had a lower frequency of use for words associated with the *Small Group* theme than high stress subjects.

Large group (theme 9)

The *Large Group* theme is also found within the *Social Realm* and *Collectivities* categories but it differs from the *Small Group* theme in that it includes words denoting larger non-intimate groupings such as society and population. Subjects used words such as people, society and public. Low stress subjects used words from this theme at a significantly greater rate than high stress subjects.

Action: Group norm (theme 24)

This theme is classified under the *Cultural Realm* and the *Cultural Patterns* subgroup and is indicative of normative patterns of social behaviour such as forming agreements and conducting business. Words used by subjects which linked to this theme were: procedure, way, program and manner. The low stress group had significantly increased use of words from this theme than high stress group.

Think (theme 34)

The *Think* theme is classified under the Psychological Processes category, *Thought* subgroup. It describes cognitive processes and includes words such as assume, choice and doubt. Subjects referred to words such as: know, think and mean. The low stress group once again had a significantly increased use of words from this theme.

Guide (theme 45)

The *Guide* theme is grouped under the Behavioural Processes category and the *Social-Emotional Actions* subgroup. The *Guide* theme denotes assistance and positive direction and is characterised by words such as aid, allow and benefit. Subjects referred to the words teach, education, commitment, training and handle. The low stress group had a strongly significant greater use of words from this theme than high stress subjects.

The results of the content analysis identified specific differences between the high and low stress groups. Significant differences were noted in the way high and low stress subjects talk about social groupings and their use of words denoting normative patterns of social behaviour. Low stress subjects used words relating to thought processes more frequently and significantly more words linked to the *Social-Emotional Actions* subcategory of the *Guide* theme. Overall the results of the lexical thematic content analysis indicate that the high and the low stress groups differ significantly in very specific areas.

DISCUSSION

The results suggest that the stress reported by nurses caring for interpersonally difficult patients appears to be independent of age, clinical experience and postgraduate qualifications (table 1). This finding lends support to the assertion that stress appraisal is better understood from the perspective of personality rather than demographic or work-related factors.

There were significant negative correlations (table 2) for the reported stress of the *Lifestyle* types of Belonging-Social Interest and Going Along to scenarios DPQ1, 3 and 6. Each of these scenarios was of the active type, scenario DPQ1 sought attention, scenario DPQ3 sought revenge and scenario DPQ6 sought power. The negative correlation between subjects' Belonging-Social Interest subscale score and stress level to scenario DPQ3 is consistent with the description provided by Kern et al (1993) of how individuals scoring high in this scale respond in confrontations with others. They note that these individuals tend to respond by being solution oriented rather than blame oriented. This orientation in interpersonal conflict situations is believed to explain the statistical findings in this scenario. In effect, it could be said that high levels of this *Lifestyle* dimension provide a

degree of protection from interpersonal stress when it presents in the form of active revenge-seeking behaviour.

The significant negative correlations between subjects' Going Along scores and their stress levels to scenarios DPQ1 and 6 also appear to be consistent with the descriptions of how these individuals may respond to difficult life situations provided by Kern et al (1993). Both of the scenarios describe active destructive forms of seeking either attention or power. Once again it could be argued that high scores on the Going Along *Lifestyle* dimension provide a protective element to stressful interpersonal situations which are characterised by active attention getting or active power-seeking behaviours.

There was a significant positive correlation of subjects scoring high on the Taking Charge dimension and stress levels to scenario DPQ4. This scenario describes a display of inadequacy. The finding is theoretically consistent with descriptions of how these individuals may deal with social situations where they are not able to influence the outcome (Kern et al 1993). The description of a patient who is unable to learn the procedure for administering her own insulin and who subsequently becomes tearful and describes herself as stupid appears to challenge subjects with a high Taking Charge score. The inability of the patient to do what is expected following instruction may be seen by these nurses as a personal failure or an inability to achieve an expected level of professional performance, therefore the situation becomes a stressor for the nurse.

The significant positive correlations between subjects scoring high on the Being Cautious dimension and the stress reported in scenario 5 is consistent with the possible responses described by Kern et al (1993) to social situations where another person appears hurt or vulnerable. Scenario DPQ5 describes a passive attention-getting mechanism displayed by a woman who is being investigated for persistent back pain. The patient is shy, quiet and isolated yet responds positively when approached by the nurse but reverts to the isolated behaviour once the interaction with the nurse is complete.

Kern et al (1993) note that individuals scoring high on the Being Cautious scale may be very sensitive to hurt in others. It appears that this group of nurses may be responding with increased stress when confronted by a patient who they perceive as being hurt or experiencing some degree of psychological pain. This group of nurses may not be able to effectively distance themselves from this form of attention-getting behaviour as they interpret the patient's behaviour as that of a victim or alternatively they identify in the patient their own feelings.

No correlations were noted for the *Lifestyle* scale of Wanting Recognition to any of the DPQ scenarios, possibly due to the small number of nurses who were categorised into this *Lifestyle* theme.

On the basis of the results the hypothesis was rejected because the correlational findings were not adequately consistent to support the hypothesis in its present form. The hypothesis should be reformulated into a more specific statement and re-examined.

Lexical thematic content differences between high and low stress groups

The responses of subjects in the high and low stress groups to the interview question requesting a description of a difficult patient encounter (table 3) showed statistically significant differences in their use of words when describing difficult patient interactions which they had experienced. The findings of this phase of the analysis support the assertion that the two groups are different in the way they perceive and approach the difficult patient.

The major differences between the groups suggest that low stress subjects take a much broader view of the problem of the difficult patient. The greater use of words relating to large groups suggests that low stress subjects view the difficult patient from a more global perspective than high stress subjects who made a greater use of words denoting face-to-face interactions.

These differing perspectives may confer a greater degree of protection from interpersonal stress for the low stress subjects because they appear to be able to place the difficult situation at a greater distance from themselves. It would therefore be perceived as a lesser personal threat to them than the high stress subjects who appear to personalise the interaction and thereby perceive the interaction as a more direct threat.

The greater use of words denoting action by the low stress group was consistent with the finding that this group had a greater range of responses to difficult patients than the high stress group. This finding, combined with the significantly greater use of words denoting cognitive processes and the strongly significant greater use of words denoting behavioural processes by the low stress group, indicate that this group are more inclined to act on the basis of beliefs regarding how best to solve the problem.

It would seem logical to propose that low stress subjects have a different cognitive appraisal of difficult patients than high stress subjects. As a consequence of the different appraisal processes, they experience less stress and take a more active and problem-solving approach to dealing with the situation. Low stress subjects are more inclined to act to resolve the problem with the patient and are more likely to develop strategies which are consistent with their beliefs regarding the cause of the difficult behaviour.

The findings of this study suggest that *Lifestyle* as measured by the BASIS-A Inventory plays an important role in the cognitive appraisal of stress in nurses who are confronted by difficult patients. *Lifestyle* appears to

provide a sound basis for understanding specific reactions to interpersonally difficult patient behaviours and appears theoretically consistent with the position of IP regarding the function of *Lifestyle* in the appraisal of life events.

LIMITATIONS

The limitations of this study include the relatively small sample size and the purposeful omission of nurses who were males. As a consequence, the interpretation of the findings should be limited to female nurses. A further limitation is that no biological measures of stress were included such as galvanic skin response or circulating catecholamine levels. The addition of biological analogues of stress in future studies would significantly enhance their reliability and validity however, they would also present major methodological challenges.

CONCLUSION

The goal of this study was to attempt to gain a deeper understanding of how and why nurses experience stress when confronted with difficult patient behaviours. To achieve this goal contemporary stress theory was converged with the personality theory of Individual Psychology and specifically the construct of *Lifestyle* as a potential cognitive mediator of stress. The outcome was an apparent consistency between the two theoretical positions in explaining the findings of this study. The implications are that current stress theory and Individual Psychology could provide a basis for interventions to assist nurses in dealing more effectively with difficult patients. It may also be possible to reduce the stress that some nurses experience when caring for these challenging patients.

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