Stress and work style in nursing

This item was submitted to Loughborough University’s Institutional Repository by the/an author.

Additional Information:

- A Master’s Thesis. Submitted in partial fulfilment of the requirements for the award of Master of Philosophy of Loughborough University.

Metadata Record: https://dspace.lboro.ac.uk/2134/10452

Publisher: © G.S.Bowman

Please cite the published version.
This item was submitted to Loughborough University as a Masters thesis by the author and is made available in the Institutional Repository (https://dspace.lboro.ac.uk/) under the following Creative Commons Licence conditions.

For the full text of this licence, please go to:
http://creativecommons.org/licenses/by-nc-nd/2.5/
STRESS AND WORK STYLE IN NURSING

by

G.S. BOWMAN

A Master's Thesis submitted in partial fulfillment of the requirement for the award of Master of Philosophy of the Loughborough University of Technology.

JUNE 1990

Supervisor: R. MEDDIS B.A. Ph.D.
Department of Human Sciences
Loughborough University of Technology

© by G.S. BOWMAN (1990)
Dedicated to my children

EMMA and CRAIG
ACKNOWLEDGEMENTS

Without the partial finance support given from the Leicester General Hospital this research would have been almost impossible, a special debt is owed to Mr. Frank Inman, General Manager, for this much appreciated support.

Many hospitals were kind and open enough to allow me free access to their wards and staff; I am particularly thankful to the many Directors of Nursing who gave me such access. Also it was both a relief and heartening to be greeted so positively by the many Senior Nurses, Sisters, Charge Nurses, qualified and student nurses who took part in the study; Their hospitality was always much appreciated.

I would also like to thank the Advanced Journal of Nursing for allowing me permission to replicate Tables I, II and III

To Ann Neal who kept the typing in order when I was in disorder I am very grateful. Also to Ray Meddis (my Supervisor) a special thanks, not only did he steer me through the difficult and tricky periods, he also gave me insights that will have lasting effects.

Last, but of course not least, my family deserve a special thanks for putting up with my self indulgence throughout the research process.
This study is concerned with some of the changes that are occurring in the nurse-patient relationship and the organisation of nurses.

An historical introduction is given to illustrate how nursing has failed to change due to lack of internal direction and excessive external controls.

Specifically designed questionnaires were the means of measurement for all the studies carried out.

Initial studies had shown that structured change towards the 'nursing process' had more positive outcome than unstructured change (P<0.05). In a positive environment, first year student nurses became more positive towards the 'nursing process' (P<0.001). Third year students' change, while positive, was not significant.

Three small pilot studies showed that nurses involved with primary nursing method of work felt significantly more independent (P<0.001), perceived themselves to have significantly more status (P<0.05), and were significantly more democratic in how they lead staff (P<0.002) than nurses working through more traditional work patterns.

A classification system of nurses' work methods was developed to objectively measure the organisational style of a hospital ward. The classification was based on how the ward organisation facilitated attachment between the patient and qualified nurse. Three styles of organisational methods were identified from this: 1) Primary Style; 2) Team Style; 3) Traditional/Task Style. This system was then used to select wards for the main study.

The main study was concerned with stress qualified and student nurses felt at work. Staff working through Primary and Team style nursing were compared (N = 198).

Twenty eight wards from thirteen health authorities were used in the study. Eight work components related to organisational and inter-personal contact were assessed. Questionnaire returns
were 92% for qualified staff and 91% for students. Evaluation of the data showed that qualified staff working through primary nursing had less stress from their work (P < 0.005). Students' stress tended to mirror that of the qualified nurses with whom they were currently working.
# CONTENTS

## CHAPTER 1  INTRODUCTION

| Historical Landmarks in Nursing Development | 1 |
| Theory Development | 6 |
| Implications of Nursing Theory | 10 |

## CHAPTER 2  THE EFFECTS OF CHANGE ON NURSES - 5 PILOT STUDIES

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>15</td>
</tr>
<tr>
<td>STUDY 1  What will influence attitude change towards the Nursing Process?</td>
<td>18</td>
</tr>
<tr>
<td>Subjects</td>
<td>18</td>
</tr>
<tr>
<td>Procedure</td>
<td>18</td>
</tr>
<tr>
<td>Instrument</td>
<td>19</td>
</tr>
<tr>
<td>Results</td>
<td>19</td>
</tr>
<tr>
<td>STUDY II  How would the positive attitudes of Qualified staff influence the Students attitude towards the Nursing Process?</td>
<td>19</td>
</tr>
<tr>
<td>Setting</td>
<td>22</td>
</tr>
<tr>
<td>Subjects</td>
<td>22</td>
</tr>
<tr>
<td>Procedure</td>
<td>22</td>
</tr>
<tr>
<td>Results</td>
<td>22</td>
</tr>
<tr>
<td>Discussion</td>
<td>24</td>
</tr>
<tr>
<td>STUDY III  Does the way nurses work affect their feelings of independence?</td>
<td>25</td>
</tr>
<tr>
<td>Subjects</td>
<td>25</td>
</tr>
<tr>
<td>Instrument</td>
<td>26</td>
</tr>
<tr>
<td>Procedure</td>
<td>26</td>
</tr>
<tr>
<td>Results</td>
<td>26</td>
</tr>
<tr>
<td>Discussion</td>
<td>27</td>
</tr>
<tr>
<td>STUDY IV  Will the work method and philosophy affect how qualified nurses feel about their status?</td>
<td>30</td>
</tr>
<tr>
<td>Subjects</td>
<td>30</td>
</tr>
<tr>
<td>Instrument</td>
<td>30</td>
</tr>
<tr>
<td>Procedure</td>
<td>30</td>
</tr>
<tr>
<td>Results</td>
<td>31</td>
</tr>
<tr>
<td>Discussion</td>
<td>31</td>
</tr>
<tr>
<td>STUDY V  Will an individualised approach to care influence a change of relationship from autocratic to democratic?</td>
<td>34</td>
</tr>
<tr>
<td>Instrument</td>
<td>35</td>
</tr>
<tr>
<td>Scoring</td>
<td>35</td>
</tr>
<tr>
<td>Subjects</td>
<td>35</td>
</tr>
<tr>
<td>Procedure</td>
<td>35</td>
</tr>
<tr>
<td>Results</td>
<td>39</td>
</tr>
<tr>
<td>Discussion</td>
<td>39</td>
</tr>
</tbody>
</table>
## Chapter 3: Developing a Classification of Nurses' Work Methods

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>41</td>
</tr>
<tr>
<td>Main features of different work methods</td>
<td>42</td>
</tr>
<tr>
<td>Task Nursing</td>
<td>42</td>
</tr>
<tr>
<td>Progressive Patient Care</td>
<td>43</td>
</tr>
<tr>
<td>Patient Allocation</td>
<td>43</td>
</tr>
<tr>
<td>Team Nursing</td>
<td>44</td>
</tr>
<tr>
<td>Primary Nursing</td>
<td>44</td>
</tr>
<tr>
<td>Work Motivation Considerations</td>
<td>45</td>
</tr>
<tr>
<td>Comments on Nurses' Work Methods</td>
<td>48</td>
</tr>
<tr>
<td>The need for classification</td>
<td>48</td>
</tr>
<tr>
<td>Basis of Classification</td>
<td>49</td>
</tr>
<tr>
<td>Classification Check List</td>
<td>51</td>
</tr>
<tr>
<td>1. The basis of patient assessment</td>
<td>51</td>
</tr>
<tr>
<td>2. The assessment and evaluation of the patient</td>
<td>52</td>
</tr>
<tr>
<td>3. The degree of qualified nurses' management</td>
<td>54</td>
</tr>
<tr>
<td>4. The accountability for patient care</td>
<td>55</td>
</tr>
<tr>
<td>5. Responsibility for patient care</td>
<td>56</td>
</tr>
<tr>
<td>6. The authority for patient care</td>
<td>58</td>
</tr>
<tr>
<td>7. The Sister/Charge Nurse's role in decision making</td>
<td>59</td>
</tr>
<tr>
<td>8. The method of communication between professional groups</td>
<td>60</td>
</tr>
<tr>
<td>9. The control of workload</td>
<td>61</td>
</tr>
<tr>
<td>10. The leadership style operating on the ward</td>
<td>63</td>
</tr>
<tr>
<td>11. Communication with relatives</td>
<td>64</td>
</tr>
<tr>
<td>Evaluation of Scale</td>
<td>65</td>
</tr>
<tr>
<td>Scoring</td>
<td>65</td>
</tr>
<tr>
<td>Pilot Testing</td>
<td>65</td>
</tr>
<tr>
<td>Self assessment</td>
<td>66</td>
</tr>
<tr>
<td>Procedure</td>
<td>66</td>
</tr>
<tr>
<td>Assessed Wards</td>
<td>68</td>
</tr>
<tr>
<td>Reliability</td>
<td>69</td>
</tr>
</tbody>
</table>

## Chapter 4: Literature on Nurses' Stress

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress in different care settings</td>
<td>73</td>
</tr>
<tr>
<td>Learner Nurses and Stress</td>
<td>76</td>
</tr>
<tr>
<td>Stress and Health</td>
<td>78</td>
</tr>
<tr>
<td>Gender and Stress</td>
<td>82</td>
</tr>
<tr>
<td>Other stress considerations</td>
<td>83</td>
</tr>
<tr>
<td>Questionnaire Design</td>
<td>86</td>
</tr>
</tbody>
</table>

## Chapter 5: A Study in Nurses' Stress

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>89</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>90</td>
</tr>
<tr>
<td>Procedure</td>
<td>90</td>
</tr>
<tr>
<td>Questionnaire Development and Procedure</td>
<td>91</td>
</tr>
<tr>
<td>Selecting Hospitals</td>
<td>92</td>
</tr>
<tr>
<td>Selecting Wards</td>
<td>93</td>
</tr>
<tr>
<td>Subjects and Questionnaire Administration</td>
<td>97</td>
</tr>
<tr>
<td>Scoring</td>
<td>97</td>
</tr>
<tr>
<td>Analysis</td>
<td>98</td>
</tr>
</tbody>
</table>
## RESULTS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response Rate</td>
<td>98</td>
</tr>
<tr>
<td>Overall Stress Scores</td>
<td>98</td>
</tr>
<tr>
<td>Medical, Surgical, Elderly</td>
<td>102</td>
</tr>
<tr>
<td>Individual Stress Factors</td>
<td>102</td>
</tr>
<tr>
<td>Perceived Stressors</td>
<td>103</td>
</tr>
<tr>
<td>Total Symptom Scores</td>
<td>105</td>
</tr>
<tr>
<td>Role Clarity and Ambiguity &amp; Organisational Factor</td>
<td>111</td>
</tr>
<tr>
<td>Work Group Relationship Factor</td>
<td>122</td>
</tr>
<tr>
<td>Work Demands Factor (IV)</td>
<td>122</td>
</tr>
<tr>
<td>Emotional Aspects of Patient Care Factor (V)</td>
<td>122</td>
</tr>
<tr>
<td>Symptoms of Stress Factor (VI)</td>
<td>123</td>
</tr>
<tr>
<td>Death and Dying Factor (VII)</td>
<td>123</td>
</tr>
<tr>
<td>Work Control Factor (VIII)</td>
<td>124</td>
</tr>
<tr>
<td>The Hypothesis</td>
<td>124</td>
</tr>
</tbody>
</table>

## DISCUSSION

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Clarity and Ambiguity Factor (I)</td>
<td>131</td>
</tr>
<tr>
<td>Organisational Climate Factor (II)</td>
<td>134</td>
</tr>
<tr>
<td>Work Group Relationships Factor (III)</td>
<td>136</td>
</tr>
<tr>
<td>Work Demands Factor (IV)</td>
<td>138</td>
</tr>
<tr>
<td>Emotional Aspects of Care Factor (V)</td>
<td>140</td>
</tr>
<tr>
<td>Symptoms of Stress Factor (VI)</td>
<td>142</td>
</tr>
<tr>
<td>Death and Dying Factor (VII)</td>
<td>144</td>
</tr>
<tr>
<td>Work Control Factor (VIII)</td>
<td>146</td>
</tr>
<tr>
<td>Medical, Surgical and Elderly Wards</td>
<td>148</td>
</tr>
<tr>
<td>Symptoms and Perceived Stress</td>
<td>151</td>
</tr>
<tr>
<td>Gender</td>
<td>154</td>
</tr>
<tr>
<td>Methodological Issues</td>
<td>156</td>
</tr>
<tr>
<td>General Comments</td>
<td>161</td>
</tr>
</tbody>
</table>

## REFERENCES

<table>
<thead>
<tr>
<th>References</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude to Nursing Process - Questionnaire</td>
<td>183</td>
</tr>
<tr>
<td>Ward Work Method Assessment Form</td>
<td>184</td>
</tr>
<tr>
<td>Self Assessment of Work Style Sheet</td>
<td>187</td>
</tr>
<tr>
<td>Qualified Nurses Stress Questionnaire</td>
<td>188</td>
</tr>
<tr>
<td>Student Nurse Questionnaire</td>
<td>193</td>
</tr>
<tr>
<td>Standard Letter to Directors of Nursing</td>
<td>196</td>
</tr>
<tr>
<td>Study Protocol</td>
<td>197</td>
</tr>
<tr>
<td>Individual Factors and Statements (Qualified)</td>
<td>199</td>
</tr>
<tr>
<td>Individual Factors and Statements (Students)</td>
<td>207</td>
</tr>
<tr>
<td>Letter from Journal of Advanced Nursing giving permission to reproduce Tables</td>
<td>213</td>
</tr>
</tbody>
</table>
FIGURES

Fig. | Description | Page
--- | --- | ---
I | Feelings of Independence - Mean Scores | 29
II | Feelings of Perceived Status - Mean Scores | 32
III | Self Assessment Sheet | 67
IV | Results of Attachment Scores | 70
V | Qualified Staffs Combined Group Members Mean Stress Scores and Standard Errors | 101
VI | Staff Nurse and Enrolled Nurses Mean Group Scores and Standard Error | 104
VII | (Qualified Staff) Perceived Stressors mean Scores and - 2 S.E. | 106
VIII | (Qualified Staff) Total Symptom of Stress Mean Scores and - 2 S.E. | 107
IX | Students Stress at Work Mean Stress Scores and Standard Error | 112
X | Qualified Nurses Mean Stress Scores for Role Clarity and Ambiguity Factor | 114
XI | Student Nurse Mean Stress Scores for Role Clarity and Ambiguity Factor | 115
XII | Qualified Nurse Mean Stress Scores for Organisational Climate Factor | 116
XIII | Student Nurse Mean Stress Scores for Organisational Climate Factor | 117
XIV | Qualified Nurses Mean Stress Scores for Work Group Relationships Factor | 118
XV | Student Nurse Mean Stress Scores for Work Group Relationships Factor | 119
XVI | Qualified Nurse Mean Stress Scores for Work Demand Factor | 120
XVII | Student Nurse Mean Stress Scores for Work Demand Factor | 121
XVIII | Qualified Nurses Mean Stress Scores for Emotional Aspects of Care Factor | 125
XIX | Student Nurse Mean Stress Scores for Emotional Aspects of Care Factor | 126
XX | Qualified Nurses Mean Stress Scores for Symptoms of Stress Factor | 127
XXI | Student Nurse Mean Stress Scores for Symptoms of Stress Factor | 128
XXII | Qualified Nurses Mean Stress Scores for Death and Dying Factor | 129
XXIII | Qualified Nurses Mean Stress Scores for Work Control Factor | 130
### TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Mean Attitude Scores in Favour of the Nursing Process</td>
<td>20</td>
</tr>
<tr>
<td>II</td>
<td>Summary of Analysis of Variance - Nursing Process Attitudes</td>
<td>21</td>
</tr>
<tr>
<td>III</td>
<td>Student Nurses Attitudes to the Nursing Process Results of Wilcoxon Matched Pairs Test</td>
<td>23</td>
</tr>
<tr>
<td>IV</td>
<td>Independence at Work - Mean Scores and Standard Deviation</td>
<td>29</td>
</tr>
<tr>
<td>V</td>
<td>Perceived Status at Work - Mean Scores and Standard Deviation</td>
<td>33</td>
</tr>
<tr>
<td>VI</td>
<td>Qualified Nurses Autocratic Scores</td>
<td>36</td>
</tr>
<tr>
<td>VII</td>
<td>Qualified Nurses Mean Scores and Standard Deviation - Response to Autocratic Scores</td>
<td>37</td>
</tr>
<tr>
<td>VIII</td>
<td>Distribution of Autocratic Responses to Leadership Scale and the Nurses Leadership Scale</td>
<td>38</td>
</tr>
<tr>
<td>IX</td>
<td>Questionnaire Distribution, Respondents and Return Rate</td>
<td>94</td>
</tr>
<tr>
<td>X</td>
<td>Classification of the Work Style of Wards included in the Study</td>
<td>95</td>
</tr>
<tr>
<td>XI</td>
<td>Mean Stress Scores, Standard Deviation and Standard Error of Sample Mean of each Specialty Group</td>
<td>99</td>
</tr>
<tr>
<td>XII</td>
<td>Mean Scores, Standard Error and Standard Deviation in all Primary and Team Groups</td>
<td>100</td>
</tr>
<tr>
<td>XIII</td>
<td>Qualified Staff’s Percentage Difference in Stress Scores</td>
<td>108</td>
</tr>
<tr>
<td>XIV</td>
<td>Student Nurses Percentage Difference in Stress Scores</td>
<td>110</td>
</tr>
<tr>
<td>XV</td>
<td>Statements which Show Greatest Differences between Primary and Team Groups (Qualified Staff)</td>
<td>113</td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION

HISTORICAL LANDMARKS IN NURSING DEVELOPMENT

Assumptions about women and caring in pre history time are based on the two distinct roles of men and women. Man, the hunter, had a role external to the family unit in his attempt to provide food. The early family is considered to be matriarchal with women providing a species survival role which lead to a caring and nurturing role (Calder 1974).

Organised care outside of the family began with the development of the Christian Church. Care was carried out by Deaconesses who developed a vocation based on Christ’s command that neighbourly love was as binding as the love of God (Calder 1974). These early hospitals took in a mixture of destitute people from the old, sick and orphaned, the duty to care was all embracing, their first hospitals emerged in the third century A.D. in monasteries.

Nursing Orders remained unchanged until the crusades in the tenth century A.D., Orders such as the Order of St.John of Jerusalem became necessary due to the number of wounded and the exposure to exotic infectious diseases. In these institutions the Knight Hospitallers and serving brothers administered to the sick. As these wars progressed, hospitals were sacked and re-established in different locations, the Order of St.John for example moved to Cyprus in 1189 and moved again in 1530 to Malta where it still exists today.

From the Middle Ages until the Nightingale era very little changed, Christian charity orders were still the main organisers of care. Outside of these Orders care was disorganised with little motivation of those involved creating popular images of Sarah Gamp (gin soaked) figures as being the type of individual who was left in charge of the sick in the pre Nightingale era.

Organised nursing as we understand it today was made possible through the efforts and success of Florence Nightingale at Scutari. Through effective organisation of resources, keeping a clean environment, ensuring adequate cooked food and clean dressings she turned around the morale of the armed forces and Nightingale was made a National heroine.
In response to this success, and after much political work with powerful male allies in politics, the Nightingale School of Nursing was established in 1860 at St. Thomas's Hospital, the money coming by means of an endowment. This gave middle class, educated women an opportunity to engage in activities outside the family in a way acceptable to society. Many of the lectures given to trainee nurses were given by medical staff and Nightingale was worried that there was a danger that nurses would become 'medical men'. She felt that the content of the medical staff's lectures were not appropriate to nursing. She became suspicious of the "medical model"; her ambition was to have educated women to teach the "handicraft of nursing" (Baly .1986).

The Nightingale system of training nurses swept the country with established hospitals providing new accommodation for their trainee nurses, the training offered varied from 3 months to 2 years. All the major training schools provided certificates on completion of training. Nightingale had three objectives, "to help the patient to become well, to help the patient die comfortably, and to keep the individual well" (White. 1978) The training of nurses was very strict and hierarchical (Williams, 1982). The labour was physically demanding for trainees who are described by Maggs (1982) as Christian ladies who had an educational background that was akin to home maintenance skills, being made to have habits that produced a high degree of cleanliness, order, quietness and gentleness. Many training institutions were under the control of Bishops and medical men (Maggs - 1982).

The establishing of a nursing model of caring for the body within the right environment (care and prevention) was complementary to medicine. Medicine was at this time establishing the nature of specific diseases in which intervention was the preferred approach (cure and treatment) (Dean and Bolton 1982). This symbiosis of nurse/doctor intervention has, on the whole, been beneficial to the sick person and is still a rational basis today for effective physical care. District nurses too were organised to be health educators in which they could attend the needs of the pauper sick and at the same time demonstrate and encourage better health behaviour related to cleanliness. This was specifically targetted at reducing the conditions of poverty (Dean and Bolton 1982). Further intervention into family health control occurred with the introduction of 'visitors' (Health Visitors) to the poor.
Nightingale was not only involved with nursing developments, she was interested in wider social issues of health and poverty. Her environmental concept of the sick room was also applied to the wider society and its environment and she was involved in issues like sewage disposal and the design of hospitals, these hospital designs have survived into our present health system and are thought still to be functional and preferred to modern designs. Dean and Bolton (1982) express the view that in the nineteenth century poverty was seen as being necessary if wealth was to be produced. Sanitation and health care interventions were necessary at this stage because it was feared that the dangers inherent in the poor's health would spread to society generally. The nurse who was controlled by her social betters was the means by which society's health was to be ordered and controlled.

The power relationship, as to by whom, and how, nurses should be controlled was there at the beginning of the 'modern' era. Williams (1982) reports that the British Medical Journal (B.M.J.) of 1897 expressed the opinion that it was medical men at Kings College Hospital who initiated the type of systematic training that lead to modern nursing. The B.M.J. was critical of nurses being given information related to physiology and anatomy claiming that 'bad' nurses were the result of including this topic in their education. Williams (1982) feels that once systematic training was under way medical staff had a vested interest in trying to change it from a set of principles as laid down by Nightingale, to practices based on medical knowledge to support the medical function.

The controls of nursing were very tight and hospitals had strict hierarchical controls with Matron in command of the hospital nurses, Sister controlling the ward. Nurses were in effect ward maids. In this hierarchy the nurse was considered of low class, the Sister equal to upper servants in private families (Williams, 1982). Eventually the training of nurses was supervised and controlled by the Matron.

Because of the place of women in society and the strength of the medical lobby, nurses could not change the handmaiden role, the typical view being expressed in 1924 by the then Principal Assistant Secretary to the Ministry of Health (Mr.L.G. Brock) referring to nursing as "ancillary to medicine" and he felt that nurse training should be acceptable to doctors (White, 1978). This medical domination is a recurring theme in the nurses struggle to demonstrate an independent, unique role in health care that was so effectively executed by Nightingale at Scutari.
Nurses such as Mrs. Bedford-Fenwick over many years struggled to control the education and independence of nursing through strong political allies. The First World War once again demonstrated the great value of female labour and the necessity in crisis of nursing skills. By 1916 the College of Nursing was set up to establish a National strategy on nurse education and development. In 1919 the Nurses Registration Act came about in which all nurses had to register on completion of their training and the General Nursing Council (G.N.C.) was established to regulate training. By 1922 the G.N.C. had published their first list of approved schools. At this time trainees were cheap labour, being given a small stipend with living quarters at the place of work so that they were immediately available for work when needed. The G.N.C. did not have an entrance test into nursing until the 1930's, their only control of registered nurses at this time being through the written final examination (Davies, 1982).

In 1935 Lord Sankey's Commission recommended the bringing together of voluntary and public hospitals in order to grade and group hospitals according to their services. It was about this period that the building of hospitals ceased until the late 1960's.

The setting up of the National Health Service had long been a dream of the Liberal Party, it was not until after the Second World War that a Socialist Government under Attlee's leadership set about creating a service that was free at the point of delivery, equally available to everyone. There were many difficulties encountered by Bevan (the Health Minister) of groups with vested interests (Baly 1976). Despite these difficulties the National Health Service was launched in 1948. Nurses had the opportunity at this time to base their education and training in further education and higher educational institutions but being averse to change declined the opportunity.

The next attempt to change the basis of nurses' education came with the publication of the Platt Report in 1964. Nurse training however in the post Health Service days became less and less patient orientated because of the growth in scientific knowledge and the emergence of new medical technology. The nurse was engrossed in keeping abreast of the wonders of modern technology and, as a result, the patient became more anonymous and displaced. This exacerbated the medical domination of nursing and drew nursing closer to medicine which provided more of the nurses education, this was reflected in the number of medical personnel involved with both
the written and oral examination of nurses. The Platt Report suggested a reduction of nursing schools from 1,000 to 200, the idea was that these schools serve a group of hospitals in the training of nurses. The basic proposal was that student nurses should spend 2 years as granted students and the third year would be as a paid employee while gaining practical experience. The Briggs Report of the 1970's on nursing education followed Platt. This wanted to link nurses education with development into higher education. His basic proposal was that all nurses (regardless of school achievement) would start together; at 18 months an examination would be taken giving a licence to practice. Those who were able would take further training after which they would be registered. This modular model could be locked into higher education with registered nurses taking diplomas, degrees and higher degrees as able. Neither of these proposals were considered financially viable nor did they move the hearts and minds of the intransient nurses.

Fundamental dissatisfaction was occurring in nursing however, recruitment was always difficult, pay was poor, the skills under valued and individuals had to suppress their personality in a system that gave them no free expression of their knowledge and skills. High turnover of young staff was a sign of the unacceptable conditions at work, women generally were also becoming more assertive. Nursing had to change. New clearer theories of nursing started to emerge in the 1970's with nurses realising their own value. The G.N.C., since 1919, had been the guardian of nursing practice; it was government funded and to some extent controlled and, like most nursing bodies, influenced greatly by its medical members. The Nurses Act of 1979 changed the relationship between nursing and the government with the creation of the United Kingdom Central Council for Nurses (UKCC) in which nurses for the first time had total control of their training and development. The UKCC became operational in 1980. The UKCC came about as a result of the Briggs Committee Report. The principle function of the UKCC is to establish and improve standards of training and professional conduct for nurses, midwives and health visitors. Its major contribution to date is the tentative production of a professional code of conduct and the working towards changes in nurses education through the proposals as outlined in the final draft of Project 2000 (1989). This project proposes that nurses should become 'Knowledgeable doers'. In order to achieve this the percentage of time students are expected to practice is reduced to 20% of the three years training; teacher student ratio is to be improved (1 : 12), those involved in the practice setting
are to be prepared for the teaching role; an attempt is to be made to
ensure all nurse teachers have degrees; with nurse training moving into
higher education, joint professional and academic validation is to be
sought once the proposed changes are agreed.

These changes are exciting and could change nursing considerably, but it
will come to little if the nurse educators stick to the medical model
that they have clung to. The medical model is attractive because, as
White (1978) says "Medical historians have been able to describe consecutive
medical paradigms as their profession developed .......... Historians have
never attempted to identify the equivalent nursing paradigms. Indeed it
is questionable whether the indigenous function of the nurse was ever
described until lately. There has been a significant lack of any stated
nursing philosophy until recently and succeeding generations of nurses
have been trained without clearly stated objectives"(P.215) This
constant feeling of hopelessness, frustration with an almost invisible
hand of oppression is echoed in much of the nursing literature. While
nurses must accept most of the responsibility for their occupation's lack
of development there is plenty of evidence that the abnormal doctor nurse
relationship has much in its construction that inhibits development in
While it will always be necessary for medicine and nursing to work
together and complement one another's contribution to care, it is now vital
for numbers of nurses to stay in nursing, feel comfortable in their work
without being threatened, with knowledgeable and experienced nurses
developing ideas on nursing intervention. Intrinsically that is what
this study is about, setting up the circumstances in which nurses can
operate independently within the current health care setting. White (1978)
the nurse-historian expresses this view succinctly when she states "Doctors
are advancing along a high technology route; nurses must realise that
they must take a divergent route if they are not to abandon the care of
their patients". (P.216).

THEORY DEVELOPMENT

Nightingale demonstrated very dramatically through the application of
scientific and humane concepts how structured understanding of care needs
aided and motivated recovery and gave hope. She had read Pasteur's work,
applied it along with other notions on nutritional need with startling
results. Not only did nursing care work in its own right as a means of self recovery, it strengthened and made more effective medical techniques enhancing the effects of medical intervention. As a result, the history of nursing theory stopped at Nightingale for a hundred years because nursing had to be harnessed to serve a medical aim. Scientific nursing as Nightingale tried to develop it was put in cold storage at its infancy.

Nightingale had a concept of care that was simple in expression and intent that could have developed into a theoretical framework, it was "to help the patient become well; to help the patient die comfortably, and to keep the individual well" (White, 1978 P.215) and "have an additional and indigenous function, that of caring for the patient and achieving for him those conditions which would be most favourable for his ultimate recovery or greatest comfort, both mental and physical"(P.54) but it was not until the mid 1950's that nurses were beginning to examine the unique contribution that they offered the sick person. Nurses like Henderson and Orlando were attempting to address the relationship between nurses and patients and its unique purpose. The general themes of nursing theory as it has developed have surrounded issues like the 'environment', patient 'needs', 'systems' of care and 'interaction' models. Nightingale was an environmentalist, the newer theorists in the 50's and 60's were looking at 'needs' and from the late 60's until the present time 'systems' have dominated.

Nursing is about the delivery of care. To appreciate the influence of their actions the sciences used in understanding interventions are the natural sciences and as Visintainer (1986) points out that practicing professions manipulate phenomena and these practicing professions (medicine, nursing) utilize explanations and knowledge invented by other disciplines, for much of nursing practice the knowledge used is borrowed. Visintainer (1986) challenges the notion that any knowledge is developed by the applied disciplines. The problem nursing has is whether caring as such has a knowledge base? The volume and diversity of the tasks nurses perform is an indication that no one theory in the care setting has ascendency over any other. Reichenback (1968) puts this position into some perspective when he states "The essence of knowledge is generalization ...... the separation of the relevant from the irrelevant factors is the beginning of knowledge"(P.5), this is the general aim of modern nursing theorists to distinguish what is irrelevant and what is relevant.
Botha (1989) argues with many others for a holistic view of man when sick, that an uncritical acceptance of scientific theory in the form of "a medical case with a clinical case history" (P.54) cannot be the full truth of a human's existence, the acceptance of scientific theories as a final truth is to distort reality. Changes in the shape of nursing theory are now almost constantly occurring, Botha (1989) feels that paradigms that gain ascendancy are slowly eroded because the theory is not solving the problems experienced. Research is the means by which theory is shaped and too little research of a credible nature is seen in nursing.

The purpose of nursing is to improve an individual's health through actions that are expressed in care behaviour. The behaviour chosen as a means of improving the individual's health depends on the disabilities and dependencies of the patient at the time.

Nursing theories seek to understand how nurses may help the patient, Henderson's theory, for example, is based on fourteen basic human needs, these needs form the basis of the nursing assessment (Aggleton and Chalmers 1986). The inability of the patient to self care for one or more of these basic human needs indicates a need for nursing intervention (Henderson and Nite 1978). Orlando's theory describes five inter-related concepts that are formulated in a problem solving approach (Schmeiding 1986). These concepts are 1) Function of professional nursing - organising principle; 2) Presenting behaviour - problematic situation; 3) Immediate reaction - internal response; 4) Nursing process discipline - investigation; 5) Improvement - resolution. King's theory (1986) works on the assumption that the nurse-patient transaction is goal directed, the interaction of the individual with his environment giving him a state of health. Orem's theory (Orem and Taylor 1986) concentrates on self care deficits and uses specific language to describe the interaction between the nurse and patient. Roy's (1984) theory makes the assumption that individuals have three clear areas that constitute their wholeness as humans, these are biological, social and psychological, any disturbance within these components requires that the individual should adapt to the changes in order to cope effectively with their future life (Sato 1986).

In practice theories emerge as frameworks for a problem solving approach which is known as the nursing process, this problem solving 'scientific' framework has the following components: assessment, problem statement, prescribing nursing care, nursing intervention and evaluation.
In a large occupational group like nursing the problem is getting these theories operational in practice; Harrel (1986) asks the question 'what comes first theory or practice?' She suggests there should be a new breed of nurse - the nurse 'engineer' whose role and function it would be to integrate theory and practice. Botha (1989) argues that future nursing staffs' education should include as many theoretical models and concepts as can be accommodated within the curriculum.

Theories that have a direct effect on human affairs should be cognizant of the relationships it has with other associated disciplines and society's development. There are clearly fundamental differences between medical perceptions of patients and the type of insight expressed in the theories described by nurse theorists. Nurses see these developments as being truly complementary to the medical function and giving patients the benefits of both care and cure approaches. However, medical writers see these changes as being divisive and disagree with the objectives and principles associated with these developments (Stanley 1983, Mitchell 1984). The medical staff will clearly have difficulty in accepting a concept less pragmatic and developed with less scientific rigour than their own, their view of the patient is one that is directly observable of an organism with internal organs that may be malfunctioning and affecting the physiological balance of the organism. The view is that emotional and behavioural problems are a reflection of faulty biological mechanism; the perception being a healthy body will create a healthy mind.

Disciplines who face and examine life from a different position are bound to have some perspectives which do not agree. The perspective chosen will be marked by "selective jargon, a style of questions and specific methodology" (Visintainer 1983 P.33) these factors will map out the group's view of the world. The new perceptions occurring within nursing will themselves produce new knowledge and other theories.

Visintainer (1983) questions the view that primacy in science is stronger than the softer sciences such as nursing that equate with the real world. The position that the more basic the science the better the science is challenged; although techniques carried out in laboratory conditions are more certain under those conditions, when the simplicity of the laboratory disappears certainty becomes hope. The certainty of the pure sciences cannot answer most of the central questions important to the patient and which the nurse has to answer and deal with. The ethical view of right and
wrong will shift when different construction of relationships emerge.

**IMPLICATIONS OF NURSING THEORY FOR PRACTICE**

Changing the perception nurses have of the patient does have implications for practice. First the psychosocial problems will be seen as significant in directing nursing practice strategies. Such a change may well create temporary difficulties in adjustment for the nurse - patient relationship, there may be a misunderstanding that the nurses are power seeking rather than attempting to give a complementary service. (Mitchell 1984).

Nursing theory is a recent development with the disadvantage that theories are currently at a descriptive level and are easily criticised for not having established proof of effectiveness. Bowman and Thompson (1986) point out that medical assessment has been developed over several centuries but accuracy in diagnosing pathology is less than 50%. Despite this reality nurses need to move faster towards prescriptive research and replication according to De Groot et.al. (1987) who also believe that theory development is essential for professional survival.

The view of Kasch (1985) is that existing nursing models need to be expanded and refined so that practice and theory have a legitimate association. He considers nursing action to be a social process which can have a positive effect on the patient's health. In order to be competent within this social process nurses need to have a knowledge base that enables them to understand the concepts and to develop the social skills that will help them observe, categorise and ultimately shape the relationship to a positive end. A common sense approach is not good enough according to Henry and Tuxill (1987) and that terms like 'human' and 'person' should be better understood by nurses with these concepts becoming essential elements of health care curricula.

In practice the nurse-patient relationship is dependent on the nurse taking the lead in communication, she also has some authority in the environment that the patient has to adjust to. It does seem that regardless of the time available, nurses do not spend any more time than is necessary with the patient (Mathews,1962; Hawthorn, 1984). Mathews (1962) takes the view that the quality of time is more relevant than the quantity e.g. a minute with the patient is worth sixty at the bedside! She gave some
definitions of a nurse's response thus:-

<table>
<thead>
<tr>
<th>(1) Person centred response</th>
<th>- encourages patient to express his view of his experiences and place in the world.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) Non person centred response</td>
<td>- discourages (by authority, aloofness and denial of the patient's individuality) communication.</td>
</tr>
<tr>
<td>(3) A person positive response</td>
<td>- seeks information about the patient's objective world.</td>
</tr>
<tr>
<td>(4) A neutral response</td>
<td>- gives the patient a factual account without getting involved</td>
</tr>
<tr>
<td>(5) A unit of content</td>
<td>- gives meaningful information</td>
</tr>
</tbody>
</table>

Wallston et al. (1978) used Mathews (1962) schema of person centredness. Statements were used to judge nurses' response to person centredness. They showed that only a minimum amount of reminder was necessary to achieve improvements in the nurse-patient relationship.

There are of course patients who wish to relinquish important decision making when it involves their health, a study by Dennis (1987) found that most wished to have control of the decisions that affect their lives. It may be that many nurses withhold information on the basis that they remain in control, such a position is of course indefensible. Dennis (1987) found that cognitive control for patients was dependent on having information about diagnosis, treatment and effects on lifestyle. The attention to information dissemination and its flow is vital to patients making temporary or long term changes to their lifestyle, the problem for traditional nursing practices is who, of the many nurses making contact with the patient, is responsible for ensuring the patient's needs in this respect are met? In the traditional setting nurses cannot possibly judge the effect their occasional intrusion into the patient's world is having, nor the effects of other nurses; Smith and Cantrell (1988) found that with disturbed patients physical distance itself did not provoke anxiety but verbal intrusion created anxiety regardless of the physical distance involved. The nursing theories outlined earlier show a strong belief in the therapeutic relationship when one nurse has responsibility for constructing relationships in a positive way. There is a belief that there is a primacy and power of care that is itself necessary for cure, the process is described as a re-integrative power of the carer (Orlick
and Benner 1988), who through caring re-integrates the patient to his world. In order that such a process can occur the carer would need to be committed to the patient's recovery, such commitment is hardly likely with the fragmented care as organised in traditional nursing settings.

The problem of compliance to treatment in chronic illness is an area that can be greatly improved upon if the right strategies are applied. The problem is that health professionals judge treatments on medical worth while the patient judges the treatment in terms of social outcomes (Strauss et al. 1984). In order to promote compliance in chronic illness patient participation is vital; various strategies are suggested by Cameron (1987) to promote compliance, these include matching treatment regimes to established behaviour, the giving of information and re-inforcing it at strategic time points as well as contingency and behaviour contracts agreed by patient and nurse. Clearly for nursing to cope more effectively with these known needs of patients requires a more sophisticated role for the nurse than has hitherto been possible. More nurses are now turning towards nursing models as a means of systematically getting to know and understand the real needs of their patient, this is known as 'the nursing process' also qualified nurses are being attached to patients from admission to discharge, having autonomy in shaping care as well as accountability and responsibility for the quality of care; this is known as 'primary nursing'. It is thought that these two initiatives, if given sufficient time to adjust, will create the right circumstances for better more knowing care.

The changes necessary for effective introduction of good assessment skills and primary nursing style response are daunting. Education of staff needs to be effective in the development of social skill training e.g. interviewing, counselling, coping with stress and assertiveness (Bowman and Thompson 1989). The benefits of an educational and training programme orientated to a nursing philosophy will probably take decades before it is fully effective and will need sustaining because of the large numbers of people involved. Price (1987) sees the nursing assessment as the key point in the patient's admission to hospital, how he is received will influence the way the patient and nurse subsequently interact. His research showed that student nurses were using nursing models in practice but nurses lacked assessment skills and were not effective in recognising psychosocial problems; also nurses need to deal with patients more sensitively. His feelings were that there was a need to develop social skills in nurses training.
Westfall et al. (1986) when comparing decision making in student and registered nurses showed that experience and acquired knowledge makes a measurable difference in decision making. The problem is getting nurses educated to make decisions about care issues rather than medical issues. A study by Hawthorn (1984) shows that by changing practices to an individual style patients were given choices as to whether they slept later or had breakfast in bed rather than being 'marshalled' to the dining room; they were also given choices as to where they sat during the day with the result that they were in various locations in the ward and not all sat in the day room.

One of the inhibitors to change, especially in general hospitals, is the power system within nursing itself and between nurses and doctors according to Chapman (1983). Her main point of contention are the badges of office displayed by staff (frilly hats, buckle style, stethoscope) to indicate their power in the system. Chapman feels that this system is humiliating to nurses and maintains the undervaluing of nursing and nurses by a controlling hierarchy. She argues for nurses to understand the relationships they are involved with and if relationships are damaging to patients and nurses then they should be changed.

Nurses have failed to demonstrate that they fulfill a different role / function from medicine and other health professions. If a distinction is not drawn Orlando (1987) thinks that nursing will continue to remain dependent on medicine and bureaucracy to formulate and implement roles. She argues that nursing must go along an independent path as the pursuit of care is the nurses goal that is uniquely theirs. Care, she says, can be given by lay people, but knowledgeable care in the context of a health care system requires education and training. Individualised care methods (nursing process, primary nursing) are seen as a systematic reasoning process that will recognise disability or distress and the means by which these dependencies can be understood; through this route nursing authority and independence will be more likely. In strengthening this nursing contribution to care Stainton et al. (1989) put forward a plan that has been functioning in Calgary (Canada) in which practitioners who are advanced in their practices and hold a higher degree are appointed to a practicing nursing faculty headed by a professor of nursing practice. Initiatives such as this should help to bring theory and practice together at the bedside.
The small studies that follow show how change can be effected in a positive way as regards the nursing process and how nurses are personally affected by changing to primary nurses. The main study shows how changing to primary nursing affects their stress at work. This provides more factual evidence as to whether or not the changes that are likely to improve patient care are also beneficial to the nurse.
itself held the key to improving care. Nurses still find it difficult to change from their traditional routines despite the growing evidence of improvement of patient care when the nursing process and primary nursing are combined for care delivery (Keithley and Tasic 1982, Thomas 1984, Miller 1985, Reed 1988). Not only is the traditional model of nursing care seen as bad for the patient it is also seen as harmful to the nurse. Fretwell (1980) describes the task system as essentially an industrial model rather than a professional one which tends to satisfy the needs of the doctor rather than the patients or learner nurses. One of Fretwell’s major criticisms of the traditional model is that it creates an automatic response to work and, especially during routine work, inhibits the spirit of enquiry. Kinston (1987) echoes this view by describing nursing decision making and work as level I work (tradesmen) when set in the traditional mould; but with current models of care that individualise the nurse response the work decision making become level II type (professional). Thus nursing is attempting to change from an intuitive and trained response to patient care problems towards an educated and reasoned approach to care.

The problems of change are related to the institutions in which nursing takes place and their power structures. There is also the problem of changing attitudes and practices among 500,000 people spread across the country. Although more nurses wish to change the majority still cling to the status quo. Fundamental changes in attitudes and relationships are essential if work is to change from task to person centredness, Hargreaves (1981) believes that acceptance of the nursing process needs changes in both practice and attitudes. The changes themselves need close scrutiny, after many years of patient centred practice the Americans have recognised problems of isolation among nurses, communication problems, little time for patient and staff education and inadequate documentation (Weaks et.al 1985). Zander (1985) suggests that the main area likely to enhance professional nursing is not organisation of the work but the locus of accountability. There is clearly no neat solution to the problems. There is a need to attempt change and to measure the effects.

In order to encourage nurses to involve themselves with patients as people the only rational way forward is to test the theories that may help the nurse understand the patient from a perspective of the nurse’s unique function; that is through the process of nursing. An adjunct to this is organising nurses work in such a way that will be more likely to facilitate
empathy through an organised attachment; that is through primary nursing. Nurses that have taken these initiatives have done so in the belief that such changes will produce the desired effect for patient care. This belief has been nurtured through articles and books written by university based nurses (Kratz 1978, Hunt and Marks-Maran 1980, McFarlane and Castledene 1982). It is assumed that through the use of nursing assessment (as in the nursing process) the nurse will have control over the use of her skills. Primary nursing on the other hand fulfills the need for professionalising nursing and meeting a need for nurses independence as well as respecting the patient as a person by putting him central to the concept. The changes will be seen to be effective when the patient is included in decision making, the qualified staff have a specific group of patients for whom they are responsible, with autonomy of decision making in their own right, the Sister/Charge Nurse playing a more supportive and advising role. Styles of leadership among nursing groups would need to change as the nurses orientation to individual care issues emerge.

Initiating change from a traditional style of nursing to an individualised method is complex and difficult with success in achieving such an objective tenuous. In order to equip nurses for the change they need to learn skills which would be new to them like interview skills, assessment skill, counselling skills, how to cope effectively with the stress of being involved with patients. Assertiveness training would also be necessary for full effectiveness in the new role. A culture change is in effect asked for with changes in relationships between nurse and patient, nurse and nurse, also the relationship between nurse and doctor requires a realignment (Bowman and Thompson 1989). Primary nursing is practiced as yet in very few establishments, the theory is rational and well intentioned, but how do we know the staff's attitude to their work is changing in a more positive direction?

The short studies that follow look at some of the effects of change; they were used to test various hypotheses related to changing to individualised care before commencing on the larger study. Studies I and II will be described separately but discussed together as they are both concerned with the nursing process; although these were completed before embarking on the thesis they are considered relevant to it. Studies III and IV were used to test the idea that real changes occurring in staff practicing through primary nursing would be shown in how they feel about themselves at work. Study V was designed to see whether a more democratic approach

Footnote: The words 'she' and 'he' are used in the text when reference is made respectively to the nurse and patient. Both the nurse and patient may be of either gender.
to care was emerging in areas where individualised care was claimed to be practiced.

STUDY I

WHAT WILL INFLUENCE ATTITUDE CHANGE TOWARDS THE NURSING PROCESS?

The prime purpose of this study was to find out whether the type of preparation staff received influenced their attitude towards the nursing process. Also we wanted to know how different grades of staff were affected by the differing approaches to a change to the nursing process.

SUBJECTS

The sample consisted of 115 qualified nurses of various grades; Charge Nurses, Staff Nurses, and Enrolled Nurses were all included. All were in full time employment coming from three discrete units. The proportions being:

- Unit I: 35 Nurses
- Unit II: 41 Nurses
- Unit III: 39 Nurses

PROCEDURE

The units had a total of approximately 130 beds each that were divided into five wards.

Unit I - Had introduced the nursing process within two years of the study commencing. It had been introduced in an unstructured way after being discussed between the Nurse Manager and Ward Charge Nurses. Staff were encouraged to read the literature related to the nursing process philosophy. Within the unit nursing process practices varied considerably.

Unit II - The nursing process had been introduced 3 years prior to the study. A structured approach had been adopted with on-going in-service education. Both formal and informal lectures were given in the wards on a weekly basis with most of the staff attending. Seminars and workshops were also used as a means of informing staff and visits were arranged to centres already using the nursing process.

Unit III - This unit had been using the nursing process for approximately one year and had introduced it in an unstructured fashion. The unit Nurse Manager and nurse teaching staff had discussed it and agreed with the Charge Nurses to proceed. There were no lectures given but the reviewing of relevant literature was encouraged.
INSTRUMENT

A 20 item questionnaire designed by the authors was given to the subjects for completion. Of the items 10 were positive statements and 10 were negative statements. A Likert scoring method was used with a possible score for each item of 1 to 5. (Appendix I). A very positive attitude to the nursing process was reflected in a score of 5, while a very negative attitude gave a score of 1. The optimum score was 100. Each item was added to give a subject's score towards the nursing process.

RESULTS

Of the questionnaires given out 64% were returned:

- Unit I = 66%
- Unit II = 85%
- Unit III = 46%

On achieving individual scores for patients the data was tabulated according to status and unit (Table I) with group means being expressed. A two way analysis of variance was used, (F Test) the results being expressed in Table II. The interaction components were not statistically significant. There were statistical differences (P < 0.001) between the three unit means. The status means however did not show any statistical significance even at the 35% level.

Unit II had a more positive attitude towards the nursing process than the other Units. Unit III in turn had a more positive attitude than Unit I. There was significant statistical difference between Unit II and the other two units (P < 0.05). No significant statistical difference was achieved between Units I and III (P > 0.05). There were no significant statistical differences across the staff grades.

Although there were no significant statistical differences in the status of the various staff (P > 0.35) there was a trend of Charge Nurses being more positive than Staff Nurses and Staff Nurses in turn being more positive than Enrolled Nurses.

STUDY II

HOW WOULD THE POSITIVE ATTITUDE OF QUALIFIED STAFF INFLUENCE THE STUDENT NURSE'S ATTITUDE TOWARD THE NURSING PROCESS?

Following Study I we were interested to know how the positive environment of Unit II affected student nurses, does the eight week placement have an
<table>
<thead>
<tr>
<th>UNIT</th>
<th>CN</th>
<th>SN</th>
<th>EN</th>
<th>OVERALL MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>69.0</td>
<td>61.89</td>
<td>60.57</td>
<td>63.15</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(9)</td>
<td>(7)</td>
<td>(21)</td>
</tr>
<tr>
<td>2</td>
<td>84.33</td>
<td>80.32</td>
<td>81.90</td>
<td>81.46</td>
</tr>
<tr>
<td></td>
<td>(6)</td>
<td>(19)</td>
<td>(10)</td>
<td>(35)</td>
</tr>
<tr>
<td>3</td>
<td>73.17</td>
<td>73.14</td>
<td>63.20</td>
<td>70.39</td>
</tr>
<tr>
<td></td>
<td>(6)</td>
<td>(7)</td>
<td>(5)</td>
<td>(18)</td>
</tr>
<tr>
<td>OVERALL MEAN</td>
<td>75.88</td>
<td>74.15</td>
<td>70.87</td>
<td>73.57 GRAND MEAN</td>
</tr>
<tr>
<td></td>
<td>(17)</td>
<td>(35)</td>
<td>(22)</td>
<td>(74)</td>
</tr>
</tbody>
</table>

Numbers are given in parentheses.

CN = Charge Nurse : SN = Staff Nurse : EN = Enrolled Nurse
<table>
<thead>
<tr>
<th>SOURCE OF VARIATION</th>
<th>SUM OF SQUARES</th>
<th>df</th>
<th>MEAN SQUARES</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>4736.611</td>
<td>2</td>
<td>2368.306</td>
<td>14.103</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Status</td>
<td>357.505</td>
<td>2</td>
<td>178.752</td>
<td>1.064</td>
<td>0.351</td>
</tr>
<tr>
<td>Interaction</td>
<td>308.598</td>
<td>4</td>
<td>77.150</td>
<td>0.459</td>
<td>0.765</td>
</tr>
<tr>
<td>Explained</td>
<td>5308.730</td>
<td>8</td>
<td>663.591</td>
<td>3.952</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

Table II

NURSES ATTITUDES TO THE NURSING PROCESS
SUMMARY OF ANALYSIS OF VARIANCE
influence on the attitude of students, or more specifically, will an environment that positively supports the nursing process have a positive influence on students towards it?

SETTING

This Study was conducted in Unit II of the previous Study. Students would gain experience in the unit in either their first year or third year of training. The training experience of the students was gained from two large teaching hospitals, these experiences as they moved around would be varied ranging from traditional approaches to areas in which the nursing process was being attempted or positively carried out; most of the experiences were however traditional. In Unit II teaching on the wards was patient centred and the nursing process document was the teaching tool with each student being under the guidance of a named qualified nurse.

SUBJECTS

Forty (40) first year students and thirty (30) third year students formed the sample of seventy (70) subjects. The first year students had been given some tuition in the school of nursing related to the nursing process during their introductory period, whereas the third year students had not been introduced to the subject until the middle of their training.

INSTRUMENT

The same instrument as Study I (Appendix I) was used to measure the students attitude.

PROCEDURE

The students were asked to complete the questionnaire at two time points (1) when they arrived on the ward and (2) just before they left the ward but prior to their final assessment. Confidentiality was guaranteed, the questionnaires were placed in a pre-addressed envelope and returned to the researchers.

RESULTS

Of the 70 in the original sample 67 (95.7%) of the nurses completed both questionnaires; of the first year group 39 (97.5%) completed and in the third year group 28 (93.3%) completed both questionnaires. Each questionnaire was given an attitude score for years 1 and 3. A Wilcoxon matched pairs signed ranks test was carried out for year 1 and 3 separately. The results are demonstrated on Table III. This shows that the attitudes of the first and third year students have a tendency to
Table III
EFFECTS ON STUDENT NURSES OF QUALIFIED STAFFS POSITIVE ATTITUDES TOWARD THE NURSING PROCESS
RESULTS OF WILCOXON MATCHED PAIRS TESTS (a) First Questionnaire (b) Second Questionnaire

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Cases</th>
<th>No. of Ties</th>
<th>Negative Ranks</th>
<th>Average Negative Rank</th>
<th>Positive Ranks</th>
<th>Average Positive Rank</th>
<th>Z</th>
<th>P</th>
<th>Mean Scores (a)</th>
<th>Mean Scores (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>39</td>
<td>0</td>
<td>7</td>
<td>17.29</td>
<td>32</td>
<td>20.59</td>
<td>-3.754</td>
<td>0.000</td>
<td>73.15</td>
<td>78.0</td>
</tr>
<tr>
<td>3</td>
<td>28</td>
<td>2</td>
<td>9</td>
<td>13.72</td>
<td>17</td>
<td>13.38</td>
<td>-1.321</td>
<td>0.187</td>
<td>70.7</td>
<td>72.9</td>
</tr>
</tbody>
</table>
become more favourable towards the nursing process during their eight weeks ward placement. Only the first year students scores were statistically significant at the 0.05 level ($P < 0.001$). A Wilcoxon Rank sum comparing year 1 and 3 scores shows there was no statistical significance between the two groups at completion of the first questionnaire ($P = 0.2396$) or on completion of the second questionnaire ($P = 0.0662$).

**DISCUSSION**

The findings of these two studies give two positive indications in respect of changing to "nursing process (1) that training designed to improve understanding of and skills related to practicing the nursing process improve the attitudes toward the concept and (2) that over an eight week period student nurses who are in a nursing process positive environment have their attitudes changed to the nursing process in a positive direction. Further, the study showed that Charge Nurses were more positive than Staff Nurses who in turn were more positive than Enrolled Nurses; the differences were not however statistically significant. This trend was also established by Daws (1988) who found that Charge Nurses had more positive attitudes than Staff Nurses who in turn were more positive than Enrolled Nurses; statistical differences being found between the Charge Nurse grade and Staff Nurse but not between the Staff Nurse and Enrolled Nurse.

On reviewing a limited range of attitude literature pertaining to nurses Moss (1988) makes the point that nurses "respond more to the attributes they anticipate a given patient to possess than to the attributes that person actually possesses" (P.620) and suggests that nurses need to identify strategies that will influence attitude change. These studies make a small impression in this direction. Others too have shown that attitude changes can be developed in relatively short time periods (Morrison and McIntyre 1969, Wilkinson 1982). However, Lillis and Wagner (1977) demonstrated that attitude changes occurring in student teachers only persisted for one year post-training. One of the problems associated with the use of questionnaire for attitude measurements is whether it is a reasonable predictor. Cooper and Croyle (1984) put the point that attitude variations are dependent on the impact and situation which will have an individual outcome. On the other hand, Ajzen (1982) asserts that there is a strong correlation between attitude and behaviour, his opinion being that poor correlation is due to poor measurement.
Not only is there doubt as to whether any attitude change will be sustained but the changes measured may simply be due to individuals conforming (Kelman 1969) especially in respect of the student group of Study II. But it is also reasonable to assume that individuals may also in the presence of changes within their working environment examine their own beliefs and values. It may be that a 'change' group would need to reaffirm their values among themselves if positive changes are to become more natural within the group. Limiting factors of the Study are other variables that may influence outcome like the culture in the different Units (Kelman 1969), leadership styles (Georgiades and Phillimore 1975) and institutional pressures (Bendall 1971). Another limiting factor in the first Study is that initiation of change to the nursing process was at different time intervals which may have some influence on staff acceptance and thus attitudes.

If there is a desire for students to develop positive attitudes toward individualised care method then it is important for them to have more positive experience in their training as this is more likely to change behaviour and attitudes (Cooper and Croyle 1984). Support for such an approach is highlighted in Hentinen and Sinkkonen's (1985) study in which they equipped nurses with knowledge and skills of process thinking in a coronary care area and found the staff became more positive after the educational experience. The acid test of course to any of the changes desired here is whether the individualising of care has benefits for the patient, we do not know yet whether a commitment to the nursing process approach will create better understanding of, and less labelling of the patients.

STUDY III

DOES THE WAY NURSES WORK AFFECT THEIR FEELINGS OF INDEPENDENCE?

The aim of this study was to measure the feelings of independence nurses had at work. It was hypothesised that the style of ward organisation would determine feelings of independence at work.

SUBJECTS

The test was based on a small sample of qualified nurses (20 registered nurses and 20 enrolled nurses) from two units that organised their work differently.:
UNIT I Was a group of wards who practiced nursing based on the medical model of care using traditional concepts and task allocation of work.

UNIT II This group of wards based their practices on individualised care concepts which were reflected in the use of the nursing process and primary nursing.

The sample consisted of ten registered and ten enrolled nurses from each unit.

INSTRUMENT

Subjects were given a questionnaire containing three statements related to a personal view of how work was controlled by the authority figures in a working environment; these being the Sister, the doctor and themselves. The three statements were:

1) Patient care decisions are made by Sister/Charge Nurse.
2) The medical staff have authority over my actions.
3) I am personally responsible for the welfare of patients I deal with.

Responses were recorded on a Likert type scale with scoring from 1 to 5 depending on how much independence they felt at work. A score of 15 would be a maximum score indicating strong feelings of independence by the respondent. Other information that was felt to be relevant included length of time qualified and grade of staff.

PROCEDURE

Each of the assistant directors in the two units gave the questionnaires to the first ten enrolled and registered nurses they met on their routine ward rounds on a predetermined agreed date. Reassurance of the questionnaire confidentiality was given. Each respondent was asked to return the questionnaire in a pre-addressed envelope through the internal hospital mail when completed.

RESULTS

All questionnaires were completed and returned. Of the traditional group 18 (90%) felt personally responsible for the welfare of the patients whereas 20 (100%) of the primary nursing group felt similarly responsible. Wider differences occurred when the groups were asked about the Sister's role in decision making when 14 (70%) of the traditional group felt that the Sister made the patient care decisions; in the primary nursing group
only 6 (30%) held this view. When asked whether medical staff had authority over their actions 12 (60%) of the traditional group felt they had while only 2 (10%) of the primary group agreed.

Scores for each nurse were achieved by averaging their scores (Fig. 1). The mean and standard deviation being shown in Table IV. The traditional group had a lesser sense of independence (mean score 3.6) while the primary group had greater feelings of independence (mean score 4.0). By using a two-way analysis of variance test ($F = 25.15; \text{df} = 1, 36; P < 0.001$) support was given to the hypothesis. Enrolled nurses in the primary nursing group benefitted the most. This interaction effect was also statistically significant ($F = 4.37; \text{df} = 1.36; P < 0.05$).

DISCUSSION

The response rate was 100% probably due to the shortness and simplicity of the questionnaire. Question 3 did not create as much divergence in response as the other two and would possibly need amending. This small study does show a difference of opinion in independence in the two groups of nurses, it may well be that the different working philosophies are as responsible for this difference as the way the work is organised. The independence expressed by the enrolled nurses in the primary group could be a rebound effect from the traditional more autocratic styles of nursing, once involved with primary nursing they defend their independence more fiercely!

Currently there is no other evidence that nurses attitudes are shaped by the method of work. Parasuraman et al. (1982) found that shift work was more influential in shaping work attitudes than the way the work was organised. Other work by Peterson (1983) suggests that job satisfaction and stability among nurses are influenced by group member attraction and cohesiveness.

Further testing and expansion in this approach would be of interest when looking at work methods and philosophies. This small study did give an indicator however that differences between 'traditional' nurses and those practicing through individual care methods were emerging.
Fig. I

Feelings of independence

- Enrolled
- Staff

trad  prim
### Table IV

**INDEPENDENCE AT WORK**

**MEAN SCORES AND STANDARD DEVIATION**

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADITIONAL</td>
<td>20</td>
<td>9.7</td>
</tr>
<tr>
<td>PRIMARY</td>
<td>20</td>
<td>12.1</td>
</tr>
</tbody>
</table>
STUDY IV

WILL THE WORK METHOD AND PHILOSOPHY AFFECT HOW QUALIFIED NURSES FEEL ABOUT THEIR STATUS?

The purpose of this study was to compare feelings of status in nurses who worked in traditional nursing wards and those working in wards practicing individualised care methods. A further indication of attitude change may also be demonstrated. It was hypothesised that those nurses working in a more independent environment and having more control of their work as in primary style nursing would have greater feelings of status than their colleagues working in the traditional environment.

SUBJECTS

The subjects were the same sample as those in Study III, that is, 20 staff from each unit, 10 being staff nurses and 10 enrolled nurses. The units were as per Study III.

INSTRUMENT

The instrument was a six item questionnaire with statements related to the knowledge, training, and importance of nursing as a health occupation. The statements were:

1) Nurses are born not made.
2) Nursing is the most important health care occupation.
3) Men do not make good nurses.
4) Nurse training does not equip you for the responsibilities of nursing.
5) Nursing is instinctive
6) Well read nurses will give more considered care.

The response to the statements being recorded on a Likert type scale with scoring from 1 to 5 depending on how they felt about their status. An optimum score of 30 would indicate that the respondent had a very high opinion of nursing knowledge, contribution and skill. As in the previous test it was thought that length of time qualified and grade of staff may be an important variable.

PROCEDURE

The procedure was exactly the same as in Study III.
RESULTS

As with Study III all test questionnaires were returned.

In the traditional group as many as 10 (50%) felt that nursing was an instinctive response, within the primary nursing group 8 (40%) held this view. In the traditional group 10 (50%) felt that knowledge was not important in caring, while 13 (65%) in the primary group felt knowledge was not important. Nurses in both groups did not feel properly prepared for the responsibilities involved in nursing 15 (75%) in the traditional group and 17 (85%) in the primary nurse group. As regards men, both groups were positive in accepting men in nursing, 18 (90%) of the traditional group and 19 (95%) of the primary nursing group. The traditional group were less positive about nursing being the most important profession with only 7 (35%) having such confidence while 11 (55%) of the primary nursing group agreed.

The mean scores and standard deviations are expressed on Fig.II and Table V. These indicate that the primary nursing group had the highest perceived status score and were statistically significant ($F = 5.1; df = 1.36; P<0.05$) which supports the hypothesis. Perceived status was higher in the staff nurse group than, the enrolled nurses, but no interaction effect was observed.

DISCUSSION

This Study, like the last, suffered from the problems of quantitative and qualitative data, also wards were selected on the basis of how the staff agreed they operated and not based on more objective measures as outlined in Chapter 3. Indeed, the primary nursing wards in this Study were assessed at a later date as to style of work method and one of the four wards was assessed as a team style ward; the standard deviation for the primary group may be a reflection of this.

Nurses have historically suffered a lack of self worth. The much quoted study of Menzies (1960) describes nurses as being deprived of satisfaction and self worth. Other studies echo this view, Fretweil (1980) describes the unsatisfactory environment in which learning has to take place and Marson's (1981) study shows how poor experience is for learners with a lack of stimulus, boredom and bad inter-personal relationships. Descriptions of this nature come from traditional environments in which the medical objectives take precedence in the mind of the nurse, thus medicine has status with care, or nursing, taking a supporting role. With individualised
Fig. II

Feelings of status

![Bar chart showing feelings of status for traditional and primary settings.](image)

- Traditional
- Primary

Enrolled
Staff
<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADITIONAL</td>
<td>20</td>
<td>19.650</td>
</tr>
<tr>
<td>PRIMARY</td>
<td>20</td>
<td>21.350</td>
</tr>
</tbody>
</table>
care, the patient and his needs are the central concern of the nurse, her decision making and behaviour affect the outcome.

Professions cherish their independence and status, these characteristics come from being able to control your own knowledge and skills, traditional care approaches do not attribute patient outcome to nursing or nurses, hence studies describe demoralised nurses who leave the occupation after only a few years of practice. Public opinion polls put nurses at the top of their affection for professionals, but nurse practitioners often under-rate their contribution. The total sample of this study does not reflect the depressing picture Menzies (1960) drew. Of the total sample 19 (45%) saw their occupation as being more important than any other health occupation. Clearly nurses are beginning to assert their worth. This greater confidence may also be reflected in the acceptance of men in nursing 37 (92.5%) of the sample accepting men as capable nurses, a move away from the sexist nature of nursing in the past.

In this study 32 (80%) respondents did not feel that their training equipped them for the rigours encountered as qualified nurses. Another more detailed study by Moores et.al. (1982) showed that 57% of his large sample of qualified nurses did not feel adequately trained in their duties.

It is not possible to establish from this study what component of individualised care (the work method or philosophy) contributed to the primary group having greater feelings of status; Studies III and IV do indicate that nurses seem to benefit from changes which give them more control.

STUDY V

WILL AN INDIVIDUALISED APPROACH TO CARE INFLUENCE A CHANGE OF RELATIONSHIP FROM AUTOCRATIC TO DEMOCRATIC?

Individualised care is by definition meant to be accepting of the patient as he is, from this position his care should be organised to meet his needs. This is a 'democratic' relationship that seeks the patient's views and perceptions. The traditional relationships among staff, and between staff and patients, can readily be described as autocratic, authoritarian behaviour being imposed on both patients and staff. In this study it was hypothesised that the way nurses work was organised and how they constructed their work would dictate leadership styles. Specifically
primary nurses would be more democratic than their 'traditional' colleagues.

**INSTRUMENT**

The instrument was developed following semi-structured interviews with third year student nurses and second year pupil nurses about their experiences on the wards. Discussions were held in small groups of 3 - 4 learners with the researcher present. They were encouraged to discuss both good and bad experiences that had occurred during their training. Notes were made of their comments which were then segregated and categorised into the leadership components as described by Adair (1984). The six components being - planning, initiating, controlling, supporting, informing and evaluating.

For the purpose of this pilot study a short five response scale was devised using the information gained from the learners (Table VIII). In the test scale three of the categories were used, supporting, controlling and planning as these were the areas which were referred to most by the learners. There were two items on supporting, two on controlling and one on planning. The scale gave the respondent a choice of two statements, one autocratic in nature and one democratic; they would then choose the statement that they felt was most important.

**SCORING**

Each response was given a score of one. The response would support either a democratic or autocratic statement. In this way each respondent would have a democratic and autocratic score. The autocratic score was used for analysis.

**SUBJECTS**

Sisters, Staff Nurses and Enrolled Nurses all formed the sample of 24 nurses; 12 from a traditional care setting and 12 from a primary nursing setting.

**PROCEDURE**

Two units were involved in the study. Unit I had been practicing through primary nursing for a period of six years, four wards participated. Unit II were just beginning to introduce some concepts related to individualised care but practices were still steeped in traditional rituals, four wards were included. The two managers in the Units gave questionnaires out to
### Table VI

**QUALIFIED NURSES AUTOCRATIC SCORES**

<table>
<thead>
<tr>
<th>GRADE</th>
<th>TRADITIONAL</th>
<th>PRIMARY</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>S/R</td>
<td>2.3 (N=3)</td>
<td>0.8 (N=5)</td>
<td>1.36</td>
</tr>
<tr>
<td>S/N</td>
<td>1.25 (N=4)</td>
<td>0.0 (N=3)</td>
<td>0.71</td>
</tr>
<tr>
<td>E/N</td>
<td>1.7 (N=4)</td>
<td>0.5 (N=2)</td>
<td>1.3</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>1.7</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

**KEY:**
- S/R = Sister
- S/N = Staff Nurse
- E/N = Enrolled Nurse
Table VII

MEAN SCORES AND STANDARD DEVIATION OF QUALIFIED NURSES RESPONSE TO AUTOCRATIC/DEMOCRATIC SCALE

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADITIONAL N = 11</td>
<td>1.727</td>
<td>0.962</td>
</tr>
<tr>
<td>PRIMARY N = 10</td>
<td>0.500</td>
<td>0.671</td>
</tr>
</tbody>
</table>
Table VIII

NURSES LEADERSHIP SCALE

<table>
<thead>
<tr>
<th>GRADE: Staff Nurse ( ) : Enrolled Nurse ( ) : Sister/Charge ( )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.a. It makes staff feel secure being available to them should they feel the need.</td>
</tr>
<tr>
<td>b. It makes staff feel secure to realise you are in control.</td>
</tr>
<tr>
<td>2.a. Learners benefit most from having good relationships with qualified staff.</td>
</tr>
<tr>
<td>b. Learners benefit most from qualified staff who know the wards routine &amp; practices.</td>
</tr>
<tr>
<td>3.a. It is better for patient care if staff are involved in all the care of a patient.</td>
</tr>
<tr>
<td>b. It is better for patient care if staff do work that corresponds to the level of their training.</td>
</tr>
<tr>
<td>4.a. How work is planned is important.</td>
</tr>
<tr>
<td>b. The way staff work together is most important.</td>
</tr>
<tr>
<td>5.a. Working with the staff provides me with a lot of satisfaction.</td>
</tr>
<tr>
<td>b. The big challenge in coping with ward work is getting staff working for you.</td>
</tr>
</tbody>
</table>

DISTRIBUTION OF AUTOCRATIC RESPONSES TO SCALE CHOICE

<table>
<thead>
<tr>
<th>SCALE NUMBER</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADITIONAL :  N = 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SISTERS (N = 3)</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>STAFF NURSES (N = 4)</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ENROLLED NURSES (N = 4)</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>GROSS</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

| SCALE NUMBER |
|--------------|---|---|---|---|---|
| PRIMARY:  N = 10 |
| SISTERS (N = 5) | 1 | 0 | 0 | 0 | 3 |
| STAFF NURSES (N = 3) | 0 | 0 | 0 | 0 | 0 |
| ENROLLED NURSES (N = 2) | 0 | 0 | 0 | 0 | 1 |
| GROSS | 1 | 0 | 0 | 0 | 4 |
staff on a pre-arranged date. No considerations as to ranks of staff were given but respondents all had to have a nursing qualification and no more than three questionnaires were to be given out in each ward. The respondents were reassured as to the confidential nature of the questionnaire and asked to complete and return it through the internal post in a pre-addressed envelope.

RESULTS

Unit I returned 10 of their 12 questionnaires, Unit II returned 11 completed. Scoring was taken from the number of autocratic responses. Once individual scores had been acquired, the work method and status was tabulated in a two way fashion as per Table VI. The means, analysis of variance and standard deviations are shown in Table VII.

Distribution of the question choices were different in the two groups as can be seen by examining Table VIII. The traditional nursing group showed a fairly even distribution of response through the scale excepting question 5. The primary nursing groups' response clusters around question 5. A non-parametric statistical test was used to analyse the scores, the test was for two unrelated samples as described by Meddis (P.108, 1984) and was significant at 1% (P < 0.0016).

DISCUSSION

This small study, like the previous study, shows significant changes in nursing attitudes developing in two discrete working situations. In this study we can see a more democratic approach in care emerging among nurses. This change may well have a long term effect on the way health care is managed as people working through democratic means need a democratic structure to lead them.

A question that needs answering is, can a traditional nursing hierarchy sustain a primary nursing care system? Do nurses need a predominantly management structure or a leadership structure? Can one individual be both a manager and a leader? Zaleznik (1981) feels that managers and leaders are different people in their natures. He believes they are different in their motivation, their personal history and even in the way they think and act. The manager type of personality is at ease with his place in the world according to Zaleznik (1981), while the leader personality is struggling to understand the how and the why.
Leaders lead people, while managers control things (Burns 1978). The control of things is not an act of leadership but one of power; and power holders may, and do, treat people like things according to Burns. This power holding management structure may be one reason why nursing has not developed; that is traditional nursing patterns are task (thus being 'thing' orientated) in which the organisational goals are more important than the individuals needs.

Duxbury et.al. (1984) examined head nurses leadership style and correlated it with burnout. She and her colleagues found that the behaviour and interaction of head nurses (sisters) did have an effect on the behaviour and attitudes of junior staff and that elevated burnout scores were related to high structure - low consideration. Teaching leadership can have an influence on nurses' style of approach, Zanecchia (1985) divided student nurses into two groups for leadership tuition. One group was given additional practical training with the result that statistical differences in the groups were found, the group with additional training being more democratic. A study by Maguire (1986) addressed the issue of relationships in primary nursing units and non-primary nursing units. Her findings were that nurses in primary nursing units concentrated more on relationships than other nurses. The results of this study support the trend related in these last three studies.

According to Larsen (1983) the problem with nursing leadership is structural and a result of female socialisation in which women blame themselves for life events creating guilt, anger and anxiety. She feels that the leadership in nursing is weak because the reward structure at clinical level does not match the rewards in management. It may well be that nurses need to decide clearly whether their organisation should reflect a leadership structure based in professionalism or a management structure based in the worker style.

This study was interesting because it showed clear differences and also illustrated the problems sisters have with relinquishing an authoritarian approach; sisters in both groups had the more autocratic scores. Also as a pilot study it was useful in testing both the hypothesis and the instrument. The instrument has now been extended to a ten item scale ready for further testing. Not only could this be used to ascertain leadership style but also to establish whether change was occuring in areas of individualised care.
DEVELOPING A CLASSIFICATION OF NURSES WORK METHODS

INTRODUCTION

The intention of this chapter is to draw up a checklist of features which will indicate how a wards' organisation facilitates the relationship between the qualified nurse and patient. This relationship will be expressed as one of three methods of work organisation, namely, primary, team or task nursing. The checklist will be used in the main study to assign wards to primary or team groups only. Nurses working task style will not be included. The reasons for this decision will be discussed in chapter 5. The key issues will be reviewed followed by an item by item account of the checklist. The full checklist is given in Appendix II. Finally, the scoring system, its testing and operational procedure will be addressed.

The various work methods nurses can choose from are based on descriptions of how nursing can be organised to ensure optimum benefit to the patient, the nurse and to the organisation in general. Description of nurses work methods vary resulting in lack of clarity and confusion. This lack of clarity can be of benefit enabling nurses who have the responsibility of organising staff to interpret work methods as appropriate to their particular setting and develop changes in ways acceptable to themselves. Problems often emerge when nurses discuss work methods. What one nurse means by 'team' nursing need not be what another nurse may understand it to mean. For example, during this study one group of nurses described their style of nursing as 'primary' nursing, but, according to the assessment described in this chapter, they were practicing a weak form of 'team' style nursing that often reverted to 'task' nursing style. The most common finding in this study was a confusion over the terms 'patient allocation' and 'team' nursing.

A general highlighting of awareness of health issues within the population as a whole, plus the 'individualising' of society, as expressed through current political philosophy, has placed individual's rights high on organisations' agendas. This has lead to greater recognition of the patient and his needs regardless of the type of work method in vogue, creating yet more confusion as to the influence work methods have in shaping relationship and outcome of care.
In order to make some sense of nurses' work methods a theoretical frame needs to be established. The approach taken with this classification is based on the strength of attachment that is encouraged (in a hospital environment) between each qualified nurse and individual patient. It is the relationship between the patient who has a need and the professional who has the authority to recognise the prescribe for that need which has to be scrutinised as the cause and effect of patient care outcome.

The reason for attempting this classification was:-

1) To have a rational means of classifying nurses' work methods for the purpose of the main study.
2) To enable nurses to understand one another when discussing work methods.
3) To focus nursing management thoughts on the nurse-patient relationship rather than general organisation issues.
4) To enable nurse researchers to assess and classify working style when researching nursing groups.

MAIN FEATURES OF DIFFERENT WORK METHODS

TASK NURSING

As with all organisations, roles are prescribed for the participants. When organising care through a task system the patient has to relinquish many of his responsibilities (Menzies 1960) and become a passive work object in order to fulfil his prescribed role (Fretwell 1980). The nurse uses a medical model to conceptualise the patient's problem, the consequences of which are that the patient's needs are viewed from a position of targeting help through tasks that combat the patient's 'disease'. This view and the way in which the tasks are organised gives a fragmented impression of the patient with a lack of continuity in the delivery of care (Marks-Maran 1978, Fretwell 1980, Chavasse 1981). There is no forward planning of care needs. Work is allocated by listing tasks on a daily or shift basis. The advantage of this is that the tasks listed can be completed during a span of duty (Chavasse 1981). Nurses are responsible for the individual tasks carried out on the patient and as such are responsible for them; the tasks themselves take priority over the patient (Chavasse 1981).
Block prescription of care for categories of patients occurs which leads to the establishing of a hierarchy of tasks. The more complex is given to the more highly trained and the prescribing of care becomes a one-way process with no facility for patients to ask questions (Fretwell 1981). Relationships are avoided or missed with no allowance for emotional support and close observations are often unnoticed (Marks-Maran 1978) with no awareness on the nurse's part of needs outside of the routine (Fretwell 1980). The ward routine follows a pre-determined and rigid course making day to day work-planning simple and easy (Chavasse 1981).

**PROGRESSIVE PATIENT CARE**

In progressive patient-care, patients are assigned to a geographical area of ward/unit according to their dependency. In each area a team of nurses delivers the care. Usually the ward is divided into four groups (Sjoberg, et.al. 1971) e.g. intensive care, high care, average care and minimal care. The patient's condition and dependency is reviewed daily and the patient is placed in the area appropriate to his needs. Responsibility is decentralised to the person in charge of the team. The composition of staff in each team is organised according to the skill mix required. Thus, the intensive care team would have a high complement of qualified nurses with the minimal care team having fewer qualified staff.

**PATIENT ALLOCATION**

Allocating patients to nursing staff usually occurs in one of two ways. The most common approach is to allocate nurses to patients on a shift basis (Pearson 1988). Another approach, but far less common, is to allocate patients for a weekly span of duty (Marks-Maran 1978). The nurse given an allocation of patients need not be qualified (Chavasse 1981) but is responsible for the delivery of total care while on duty. The nurse will plan care for the period of duty which decentralises management and creates a more participative style (Heslin 1987) with on-going care planning by those nurses directly involved with care. In this way, the sister's role is supervisory although she may well involve herself with care planning and be responsible for patient outcome. In all previously described work methods medical assessment is central, in patient allocation a mixed medical/nursing assessment model is often used.
TEAM NURSING

The purpose of team nursing is to maximise the use of available qualified nursing skills making them more readily available to patients (Shukla, 1982). The registered nurse is supported by a team of staff. Usually wards are divided into two teams, but more than two can be organised. Each team is led by a registered nurse whose role is to create good teamwork with a strong group identity (Shukla 1982, Pearson 1988). According to Shukla, the team leader's role is fourfold "(1) plan nursing care through participative planning strategies, (2) delegate specific tasks and/or patients to team members, (3) provide part of the professional care, and (4) supervise, co-ordinate, and evaluate the care provided by team members." (P13). The team leader may use a patient allocation method or task approach to organising care (Marks-Maran 1978).

The emphasis in team nursing is to increase group members participation in the management of care, creating a group identity. Improved quality of care delivery to the patient is thought to result from the appropriate use of qualified nurses when needed. For example, the patient is involved with fewer staff members who may include the patient in planning his care, which may improve staff/patient relationships (Reed, 1988). The hierarchy within this system is traditional with the team leader responsible and accountable to the ward sister and the team assumes a collective responsibility for its action. The general belief is that participative management may increase job satisfaction and motivation in the nurse (Pearson 1988).

PRIMARY NURSING

Primary nursing was first described by Manthey (1973) who established the concept of primary nursing. More recently she has clarified her idea and said that "The essential truth of primary nursing is that it is a responsibility relationship between a nurse and a patient" (P.645) the qualified nurse has "Total responsibility for a patient while he receives nursing services from a particular department or agency ...... within the context of this relationship the patient knows that one (qualified) nurse is in charge of his care while the patient is in this particular area ...... the system is recognised as one where an individual (qualified) nurse has responsibility both for giving care and for making decisions and where acceptance of responsibility is both visible and well understood" (Manthey, 1988 P.645).
In primary nursing each patient is assigned to a qualified (registered) nurse on admission to hospital. The registered nurse is responsible and accountable for the welfare of the patient throughout his hospital stay (Pearson 1988). This change in relationship between the qualified nurse and the patient should facilitate a strong bond or attachment between the patient and nurse (Gillies, 1982). Each qualified nurse has between one to eight patients (Hegyvary 1982, Follett 1982, Gillies 1982, Shukla 1982) which gives her maximum accountability for a span of control that is smaller than traditional forms of nursing.

The qualified nurse has a clear patient workload for which there is responsibility for the delivery of care. They are also accountable, have autonomy and responsible for the co-ordination of services to the patient (Wright 1987). The primary nurse's main responsibilities according to Shukla (1982) are ".... for assessing, planning and co-ordinating throughout the patient's hospitalisation and who provides direct services to the patient and family when on duty". (P.13).

Other staff work with the primary nurse and when she is off duty an associate nurse provides care to her patients. The associate nurse may also affect changes in the care plans during the primary nurses absence (Shukla 1982, Pearson 1988). The ward sister's role changes in the primary nursing system and she becomes a clinical leader who acts as a consultant and advisor to primary nurses and a teaching resource for all staff in the unit; thus changing the traditional hierarchical relationships to peer relationships (Wright 1987, Bowman and Thompson 1989). Ideally, the primary nurse is released from most administrative duties and the ward routine (which is organised around the patient) should be less rigid.

**WORK MOTIVATION CONSIDERATIONS**

Nursing is an active 'doing' occupation in which behaviour and attitudes will affect outcome. Industrial models of work motivation should not be assumed to be appropriate in a situation in which a philosophy and theories are applied at work and when real conscious people are the 'material' on which the employees exercise their skills.
In the performance of work in which tasks are carried out, several factors influence the motivation of an individual's performance. (1) The variety of factors associated with the work such as the environment, pace of work and the number of people with whom they interact. Variety in the workplace can reduce 'dissatisfiers' at work. (2) Giving people choice and discretion in organising the means of work when pursuing tasks and applying knowledge in order to solve problems will increase motivation. (3) Being able to contribute in constructive changes that affect the total task and being given feedback regarding the final decisions and; (4) Goal characteristics that are clear, realistic and not too difficult are important motivators according to Cooper (1973).

Behavioural approaches to work concentrate on controlling behaviour in order that individuals are realistic and effective in their role. The main focus for behaviourists and organisational writers has been a positive reward system in order to change work behaviour (Steer and Porter 1983). The conditional approach of the behaviourists is founded in three main principles; the first is the observation of behaviour; the second is that behaviour is learnt; and the third is that the strength or weakness of a behaviour depends on the consequences of that behaviour. The consequences are the end product of the technique known as operant conditioning (Robertson and Smith 1985). There are four types of intervention from which consequences can be felt. (1) Positive reinforcement is aimed at increasing the frequency of a given behaviour (2) Negative reinforcement is aimed at the removal of unpleasant stimuli that may prevent learning of behaviour that is desired (3) Punishment in which unpleasant experiences associated with specific behaviour will reduce the likelihood of unwanted behaviour being repeated and (4) Extinction of a behaviour occurs when there are no consequences or feedback occurring as a result of the behaviour. Nurse training has been described as a conditioning process (Bowman and Thompson 1989) rather than an educational experience, in the main only two of the four interventions are used to condition nurses, namely positive reinforcement and punishment.

The process theory described by Robertson and Smith (1985) examines the psychological processes that facilitate motivation. The main thrust of this approach is that people are goal-directed, the higher the value the individual puts on the goal the greater will
be the motivation. Realism in the setting of goals is of great importance. Goals that are too easy or too difficult can, in themselves, be demotivating. Productivity of people at work can indicate how well motivated individuals and groups are. Hernandez et. al (1988) looked at nursing productivity by relating organisational factors to productivity. Their analysis indicated that the positive factors that enhanced productivity were supervisory leadership-style (e.g. when supervisors help in identifying better processes), that working through job enrichment methods (such as primary nursing) their work was seen as important and they produced more.

In human services like nursing, work motivation has to consider the effects of such strategies on the patient. Punishment of the nurse can have adverse repercussions on those he/she is meant to help. The use of concepts that establish human need and development may be more valuable in motivating nurses at work. Maslow's (1970) theory of need hierarchy is a concept that offers five levels of human achievement and motivation, these levels are (1) physiological need (2) a need for safety (3) a social need or feeling of belonging (4) need for esteem (5) self actualisation need. The lower needs of physiology and safety become less important if the higher needs are realised. This notion of different levels of personal need can be applied to both the patient and nurse in the work place, but it does not take account of environmental factors which might impede gratification of the higher needs. Another non-production concept of work motivation is offered by Hertzberg (1968), he proposes two factors of importance in the work environment (1) The satisfiers or motivators that come from elements within the work (intrinsic factors) such as the challenge or meaning of the work; these are considered to be of a higher need. (2) The dissatisfiers are the extrinsic factors of the work and are of a lower need; these include management styles, pay and conditions. The removal of dissatisfaction from the lower need (e.g. give a pay rise) does not in itself create satisfaction, it merely removes a dissatisfaction.

These latter strategies or approaches may be more pertinent to human services especially when there is a desire to acknowledge all parties as individuals within the work environment. Congruity of belief system and work organisational factors are important considerations for nurses at work if conflict is to be avoided.
COMMENTS ON NURSES WORK METHODS

Organisational principles of nurse's methods may be different although many of the operational components are shared. For example, a nurse may be assigned to care for a group of patients for a shift, or series of shifts, in progressive patient care, patient allocation or team nursing. It is how staff are organised to interact with patients that makes them organisationally different. Kinston (1988) states that qualified staffs work can be organised in three ways.

1) The registered nurse is involved with routine tasks and responds to situational changes, involving herself with all aspects of care.
2) The registered nurse handles most of the patient care but has assistants to help her with routine work.
3) The registered nurse prescribes care. All routine work is carried out by others under the registered nurse's management.

This logic also spills over into the description of nurse's work. Components of all the nurse's work methods described can be placed into three major organisational styles of work design thus:

1) Primary Nursing in which a qualified nurse has the main consistent relationship with the patient.
2) Team nursing in which a third or a quarter of the wards' staff mainly interact with the patient.
3) Task nursing in which all staff have brief periods of contact with all patients.

THE NEED FOR CLASSIFICATION

The purpose of developing this classification was to clarity the characteristics associated with the different approaches nurses had in organising their work. For the purpose of this study it was necessary to objectively measure the work method of a ward in order to categorise them as either 'primary' or 'team' nursing styles. In practice, nurses are not always clear as to what they mean when they refer to 'team' or 'primary' nursing. Another reason for developing a nurses classification system is for scientific purposes. Published papers often compare one work method against another but it is rarely clear how the authors have classified
wards as 'team' or 'patient allocation' or 'primary nursing' (Reed 1988, Perala and Hentinen 1989). Furthermore, a classification process could be diagnostic in determining the organisational style adopted by a ward, and, if desired, indicate changes that would be required to adopt another style.

**BASIS OF CLASSIFICATION**

Nursing theories all agree that the central or primary role of the nurse is one in which the nurse interacts with the patient to meet his needs initially, to encourage the patient back (as far possible) to independence with his own self-care and to give him the insight to adapt his lifestyle where necessary. This may be a simple process or very complex; it may require everyday environmental aids or complex technology. All other activities and relationships are assumed to be secondary for the nurse to fulfill this role effectively. In traditional styles of nursing the organisation is central and every effort is made to ensure that the patient's personality and personal preferences do not intrude in the delivery of treatment (Menzies 1960, Fretwell 1980). Nursing theories acknowledge the vulnerability of the patient's position and the responsibility that rests with the nurse in appeasing the patient's plight. Orlando (1972), for example, gives a first principle that the nurse should meet the patient and establish his immediate need for help; there is an explicit need for the nurse to communicate effectively. Her expression of 'lay' nursing being routine and repetitive, while professional nursing is shaped around the individual based on knowledge and knowing which emphasises the importance of relationships. The Roy adaptation model (Sato 1986) defines the patient as the system. The aim of the nurse is to help the patient achieve adaption through the nurse's accurate analysis and contributing the right responses and information to register a need for change in the patient. Involvement like this requires the establishing of trust through effective relationships. Orem's theory (Orem and Taylor 1986) develops jargon in order to establish the uniqueness of the relationship between patient and nurse and its moral nature. King's theory (1986) assumes a mutual influence between nurse and patient. Basic rights are ascribed to the patient. He has the right to know and to be involved with decision making. He also has the right to reject health care or components of it. The basis, therefore, of nursing lies in the relationship with the patient. Group and organisational notions are of secondary importance.
These assumptions, while grand, are extremely difficult for nurses to cope with on a day-to-day basis. What is the nature of this professional relationship? For 'good' care to develop as defined in nursing theory, an attachment must develop between the nurse and patient and there must be goodwill. The attachment is not chosen by either party and is enforced by the conditions under which the patient arrives into the nurse's care. The attachment is also of a limited duration. Campbell (1983) has a moral view of this relationship in which he describes it as a journey in which the nurse accompanies the patient from the beginning to the end; the nurse having a relationship with the patient that is likened to a companion.

Bowlby's (1981) attachment theories are of interest here; he recognises that during adolescence and adulthood ties and attachments can occur outside the family, these attachments may not be to individuals but also to groups of people or institutions. Attachment behaviour and sexual behaviour are seen by Bowlby (1981) as being conceptually different. He also makes the point that there is a common judgement that to be dependent on someone is seen as demeaning. On the other hand, for someone to be attached to someone else is given a more pleasing aspect. It is worth here quoting Bowlby's perception of a person in need. "In sickness and calamity, adults often become demanding of others; in conditions of sudden danger or disaster a person will almost certainly seek proximity to another known and trusted person. In such circumstances an increase of attachment behaviour is recognised by all as natural". (P.255). His idea of illness behaviour is that it is not regressive to look to someone else, especially if the other person appears to be in control. The attachment is therefore seen as a normal and desirable human response.

The moral and behavioural views expressed by Campbell (1983) and Bowlby (1988) give a clearer perspective of the relationship between the nurse and patient as being a companionship attachment. The ability of a ward organisation in facilitating attachment of this nature will form the basis of the classification system i.e. how the patient is attached to the qualified nurses in the ward.
The proposed classification scheme consists of a number of elements that need to be considered separately. Once each element has been discussed, a list of possible practices that can occur within a ward will be drawn up. Next to each practice possibility will be a space in which the assessor indicates (with a tick) the practice occurring in the ward. A score is shown next to this response. This score indicates how qualified nurse/patient attachment is facilitated. A low score offers better opportunity for effective attachment. The format of the lists will correspond with the sequence, wording and layout of the ward assessment sheet (Appendix II). The assessment sheet will be used to classify wards into 'primary' and 'team' groups for the main study. The assessment will be completed on the same day work stress questionnaires are given to staff. This will enable the author to place returned questionnaires into 'primary' or 'team' work method groups for analysis (Chapter 5).

1. **THE BASIS OF PATIENT ASSESSMENT**

In attempting to assess whether a companionship attachment is likely between the patient and nurse, the nurse should gather information pertaining to the patient as a person, his personality, social existence, how he copes with his health and his disabilities. This nursing assessment is meant to establish whether the patient has a problem that can be effectively tackled by the use of the nurses knowledge, skills and authority: the nursing assessment should be based on Nursing theories (Bowman and Thompson 1986). Work methods such as primary nursing stipulate that it is the function of the primary nurse to assess, plan, implement and evaluate care from admission through to discharge, (Wright 1987, Reed 1988, Pearson 1988). Manthey (1970), who was the originator of the primary nursing concept, viewed medical knowledge as an integral part of the nursing assessment. She also gave responsibility of assessment to the primary nurse who then made decisions after gaining data from the medical records. Today it is not uncommon to find nurses still confusing medical and nursing assessment in practice. However, greater clarity in the nursing assessment has developed since 1970 with dependency on medical information being obsolete in many environments. The medical knowledge is
used by nurses to help conceptualise biological problems and understand the medical contribution and the reason for any delegated medical tasks.

Information which the nurse gathers will influence her perception of the patient. There is a need to know from what perspective the nurse gets to understand the patient and his needs.

Is the nurses assessment of the patients needs based on:-

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) A nursing perspective</td>
<td>( ) 1</td>
</tr>
<tr>
<td>b) A mixed medical/nursing perspective</td>
<td>( ) 2</td>
</tr>
<tr>
<td>c) A medical perspective</td>
<td>( ) 3</td>
</tr>
</tbody>
</table>

This assessment appears as the first question in Appendix II

2. THE ASSESSMENT AND EVALUATION OF THE PATIENT

Probably the most important period of the nurse - patient attachment is at the time of admission. The patient invariably suffers distress not only from his symptoms and disability but also from having to trust his fate to complete strangers. The environment is unfamiliar and he is made more vulnerable further by having to wear clothing that only close family would normally see him in. He is at this time highly susceptible to the influence of others: Bowlby (1981) asserts that under this type of condition invididuals are ready for close contact with others, especially to one who appears to be helpful and in control. Whoever discusses personal information within the context of a nursing history will be in a privileged position, the quality of the interview will determine the nurses' future influence on the patient.

In the traditional situation any interview with the patient is generally very basic, the medical diagnosis will indicate a list or range of behaviour that maintains the patient's biological safety. The nurse's actions are based on routine. Fretwell (1980) considers that when day to day tasks are based on routine an occupation ceases to be a profession for that person. Because of ritual task performance Menzies (1960) says that decision making on the part of the staff is eliminated. Indeed in these circumstances the needs to make a decision could provoke anxiety among staff. Task assignment is typified by the need to give detailed instruction of how to fulfill a given task.
In team nursing a sub group of the total nursing workforce is lead by a qualified nurse. The team give total care to a group of patients. Care decision making is on a shared basis. All the members of the nursing team are involved with communication through to the evaluation of care (Manthey 1970, Reed 1988). Hernandez et.al. (1988) found that nurses who jointly made decisions, share information and have confidence in one another are well motivated to meeting their objectives but, interestingly, they found that these groups were not as productive as less cohesive groups.

With shift assignment of patients we can see the confusion that comes from organisational based work descriptions. Patient allocation, total patient care and total patient assignment are synonymous. In patient allocation the planning of any care is carried out by the nurse for her shift or for 24 hours ahead (Marks-Marar 1978). In total patient care assignment responsibilities are on an 8 hour shift basis by the assigned nurse; all the nurses assigned to the patient during his stay contribute to the care plan on an on-going basis (Heslin 1987).

Primary nursing, according to Manthey (1970) prescribes the role of the qualified nurse as being responsible for the patient from admission to discharge. She should interview the patient as soon after admission as possible and plan the care based on her own information and that gained from medical records. In primary nursing the primary nurse assesses, plans, implements and evaluates care on a 24 hour basis, seven days a week (Wright 1987, Reed 1988). This means that decision making becomes independent at the nurse-patient level (Binnie 1987).

The experience of this author is that in practice nurses other than the primary nurse often interview the patient. This means that some primary nursing situations create stronger potential for attachment than others.

To establish how a ward organisation facilitates this opportunity for attachment, it would be necessary to know who is completing the patient's records from admission to discharge.
Who is responsible for completing the nursing record from assessment to evaluation:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) A named qualified nurse all of the time</td>
<td>1</td>
</tr>
<tr>
<td>b) A named qualified nurse for 70% of the time</td>
<td>2</td>
</tr>
<tr>
<td>c) A named qualified nurse for less than 70% of the time</td>
<td>3</td>
</tr>
<tr>
<td>d) All nurses involved with care</td>
<td>4</td>
</tr>
</tbody>
</table>

This information can be gleaned from patients' records by checking a number of nursing notes, say 10 in number.

This assessment appears as the second question in Appendix II

3. THE DEGREE OF THE QUALIFIED NURSE'S MANAGEMENT INVOLVEMENT

The more administrative work the qualified nurse has, the less time she is able to spend on patient orientated activities. The traditional styles of nursing encourage the desire for nurses to gain ward administrative and management experience, as these activities are seen as having the greatest kudos. Newer initiatives within nursing encourage the idea that patient care is more significant and prestigious than ward management. Wright (1987) describes a situation in which one nurse of any rank acts as the ward coordinator while the most senior nurse on duty is involved in patient care issues. A study by Peräla (1988) found that after the implementation of primary nursing registered nurses became more involved with patient care.

Team style nursing positively encourages participative management (Pearson 1988) on the assumption that there will be an increase in job satisfaction and motivation at work. The traditional controlling hierarchy is important in team nursing: the team leader's role is that of a co-ordinating and supervisory nature, a key function is the evaluation of others work (Shukla 1982).

Given changes in technology, Zander (1985) considers that the new era of health care and transplantation means that people live longer without cures. In this era nurses must be patient centred in order to make sense out of the ambiguity of treatment without cures. Hunt (1988) emphasises the need for bedside nurses to make decisions related to care and the need for that same nurse to carry out the care when possible. Also inappropriate information
sessions, over use of staff meetings and integrating staff for its own sake take away time and energy that could be available for productive work (Hernandez et al. 1988)

Any general administrative/management function will interfere with the nurse/patient attachment and may prevent the qualified nurse from involvement in key care issues during the patient's stay. We therefore need to know how much administration/management duties the qualified nurses have?

How much of the nurse's time is taken up with managerial duties:-

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) None</td>
<td>1</td>
</tr>
<tr>
<td>b) Very little</td>
<td>2</td>
</tr>
<tr>
<td>c) Some</td>
<td>3</td>
</tr>
<tr>
<td>d) A lot</td>
<td>4</td>
</tr>
</tbody>
</table>

This assessment appears as the third question in Appendix II

4. THE ACCOUNTABILITY FOR PATIENT CARE

In the traditional setting care is fragmented with each and every task treated with the seriousness of life and death intervention (Menzies 1960). The nurse completes tasks under such conditions and thus accountability for whom and for what is difficult to establish. Nurses work methods that try to develop holistic care address the issues of accountability because of the greater involvement the nurse has with the patient and the decision making process.

Where total patient care assignment is practiced, the nurse assigned to the patient is accountable for the nursing care for the duration of her shift (Heslin 1987). Team nursing suffers to some extent in the same way that task care does, that is, it is difficult to hold anyone accountable for anything. According to Reed (1988) the nurses in team nursing are accountable for care ".... as they relate to the patient" (P. 384), in team nursing it is group activities and achievements that the team aims for with shared accountability (Pearson 1988).

Primary nursing on the other hand incorporates a strong component of accountability into the hospital nurse's role, it is extended beyond the limits of methods such as total patient care assignment (Patient allocation) Manthey (1970). The primary nurse has clear
accountability for 24 hours a day, seven days a week for a patient's care whilst in the primary nurse's working environment (Manthey 1970, Wright 1987, Reed 1988).

The difference of clarity regarding accountability between primary nursing and other methods of working is seen in the few available studies. The observation of Hernandez et.al. (1988) that close collegiate teamwork reduces productivity if followed up by the assumption that job enrichment exercises increased productivity. The example he gives states "primary nursing in hospital tends to enhance accountability, group cohesiveness, self-motivation and performance". (P.60) Huff et.al. (1988) showed that patients in a long term care programme viewed the primary nurses as being very knowledgeable and accountable for care. Accountability is determined by the results of a patient's outcome according to Zander (1985), for example, if knowledge is required by the patient and they receive it, retain it, and utilise that knowledge, that nurse has accounted for an appropriate change in the patient. It is not the effort that demonstrates a nurse's worth to the patient, but the achievement in terms of the patient's outcome. Clarity in this is important for a good nurse-patient attachment. We therefore wish to know who is accountable for patients' nursing care and hospital stay?

Who has accountability for patients nursing care and hospital stay:-

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) A named registered nurse all of the time</td>
<td>1</td>
</tr>
<tr>
<td>b) More than one registered nurse</td>
<td>2</td>
</tr>
<tr>
<td>c) A registered nurse when on duty</td>
<td>3</td>
</tr>
<tr>
<td>d) The Sister</td>
<td>4</td>
</tr>
</tbody>
</table>

This assessment appears as the fourth question in Appendix II

5. RESPONSIBILITY FOR PATIENT CARE

Traditional structures invest responsibility for care in the Sister owing to the fact that the nurse is responsible for tasks, not the patient. Within the traditional setting Menzies (1960) observed that some people in the ward may be described as 'responsible'. The opposite of this are nurses being described as 'irresponsible' in their roles. Staff in hierarchical work settings often complain of being treated as if they were irresponsible or that they have
no sense of responsibility. The traditional nursing environment fails to define adequately who is responsible for what. Responsibility is so generalised that no one person can be identified as responsible, even the Sister (Menzies 1960). Task responsibility is given to a junior nurse by a senior nurse, so that the junior is responsible for performing the task and the senior nurse has a supervisory responsibility.

With total patient care the nurse assigned to the patient is responsible to the patient for that shift. In team nursing, staff can have either tasks or patients delegated to them (Shukla 1982). The situation regarding responsibility is somewhat confused, Pearson (1988) writes of a decentralising of responsibility which is invested in the team leader, whereas Manthey (1970) and Reed (1988) say that in team nursing, responsibility is shared, creating a dilution of responsibility that cannot be associated with anyone. Further confusion exists, when Marks-Maran (1978), asserts that the planning of care is the responsibility of the team leader, who in turn is responsible to the Sister.

Primary nursing positively encourages individual nurses to take on responsibility for care directly. The primary nurse has responsibility for care 24 hours a day and seven days a week (Wright 1987, Lathlean 1988) and to ensure care is completed (Reed 1988). The primary nurse is responsible for giving information to nursing staff regarding the care of her patients. Manthey (1970) stresses the importance of nurses positively accepting responsibility for nursing care, and that this responsibility should not be shared. Operationally Hunt (1988) believes there should be one person responsible for the care of a patient seven days a week.

The feeling of being responsible for the nursing care of a particular patient should improve the possibility of appropriate attachment. Here then we wish to know, who is responsible for a patient's nursing care and hospital stay?
Who has responsibility for a patient's nursing care and hospital stay?

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A named registered nurse all of the time</td>
<td>1</td>
</tr>
<tr>
<td>More than one registered nurse</td>
<td>2</td>
</tr>
<tr>
<td>A registered nurse when on duty</td>
<td>3</td>
</tr>
<tr>
<td>Sister</td>
<td>4</td>
</tr>
</tbody>
</table>

This assessment appears as the fifth question in Appendix II.

6. THE AUTHORITY FOR PATIENT CARE

Authority in nursing, like responsibility and accountability, has been neglected with nurses not having the confidence to claim authority in anything. The task nursing approach encourages authority to travel upwards to the person in charge of the ward (Menzies 1960). With team nursing, care is planned through participative strategies with each member involved (Shukla 1982). Primary nursing gives a named nurse authority in care matters 24 hours a day (Hunt 1988). The philosophy and structure within primary nursing, helps to facilitate self-directed control of nursing care, increasing professional autonomy, along with the authority to use her skills and knowledge, in a way that she feels is right for that individual patient (Reed 1988). Wright (1987) says "In the mode of 'professional governance', the primary nurse has the authority, and acts on it, to make decisions about the patient's, or family's, nursing care" (P.25). The Sister's role does not lose authority in this approach, as she can exercise authority over the general qualities in nursing practice (Manthey 1970).

In a survey of nurses, Schutzenhofer (1987) found that the majority of nurses (85%) did not believe that nursing autonomy was adequately exercised. Authority when interfacing with the patient may be seen as a power relationship. In the context of attachment and the nursing ethic, it should equate with responsibility and accountability in a way acceptable to the patient and themselves. If this authority is missing then accountability and responsibility are lost. It is therefore necessary to know who has had authority in prescribing nursing care and ensures it is carried out?
Who has authority in prescribing care and ensuring it is carried out:

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) A named registered nurse all of the time</td>
<td>(  )</td>
</tr>
<tr>
<td>b) More than one registered nurse</td>
<td>(  )</td>
</tr>
<tr>
<td>c) A registered nurse when on duty</td>
<td>(  )</td>
</tr>
<tr>
<td>d) The Sister</td>
<td>(  )</td>
</tr>
</tbody>
</table>

This assessment appears as the sixth question in Appendix II

7. THE SISTER/CHARGE NURSE'S ROLE IN DECISION MAKING

The Sister is the key figure in the ward organisation. She is responsible for the way the ward operates and whether there is an open or closed approach to care. Traditional work patterns invest most of the decision making in the Sister with responsibilities forced upwards in order that staff may disclaim liability for any work done (Menzies 1960). Fretwell (1980) describes a situation in which traditional patterns of nursing create routine care in which the Sister and Consultant indicate their personal preferences, in this way these power figures are influential even when absent.

Team nursing provides a decision making structure that reflects a traditional hierarchy; team leaders are directly responsible to the ward sister for planning care (Marks-Marar 1978, Reed 1988). Care assignment (total patient care) produces a decentralised decision making structure (Heslin 1987) in which the Sister assigns patients to the staff according to their skill level. The primary nursing system invests care decision making in the primary nurse. To accommodate this, the sister has to change the way in which she validates the nurse's decision making, and teaches staff skills related to the decision making process, thus supporting her staff (Hunt 1988, Lathlean 1988, Bowman and Thompson 1989). This support role means that the sister will have knowledge of all patients' circumstances and an awareness of staffs' strengths and weaknesses (Manthey 1970).

According to Binnie (1987) clinical decision making has to be decentralised, there being a need to dismantle the hierarchy associated with traditional nursing. This view is echoed by Bowman and Thompson (1989) who describe the extended hierarchical system in hospitals as a social control instrument, they suggest a need to develop more adult relationships based on trust and mutual support. The
Sister having the knowledge and skills to give advice on care. Redfern (1980) suggests that sisters work can develop through job enlargement, into areas of teaching and research. Sisters who co-ordinate staff through formal and informal meetings produce more effective groups of nurses, while those who go by the book, produce less effective groups (Hernandez et.al. 1988). In order to see whether the sisters interventions are supportive of, or intrusive in the attachment of the qualified nurse to the patient, we need to know what is the role of the ward sister in patient care decision making?

What is the Sister's role in patient care decision making:-

<table>
<thead>
<tr>
<th></th>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Advisory</td>
<td>1</td>
</tr>
<tr>
<td>b)</td>
<td>Mixture of a) and c)</td>
<td>2</td>
</tr>
<tr>
<td>c)</td>
<td>Central</td>
<td>3</td>
</tr>
</tbody>
</table>

This assessment appears as the seventh question in Appendix II

8. THE METHOD OF COMMUNICATION BETWEEN PROFESSIONAL GROUPS

Traditional nursing by implication is hierarchical, and all communication has to be processed through the sister. Reed (1988) criticises team nursing for having "Too many complex channels of communications" (P.384) because of the team communication structure as well as the hierarchical structure. The total patient care assignment method is meant to give direct channels of communication between those involved in patient care. The primary nurse should communicate directly with the physician on a daily basis were possible and can often attend medical rounds when they are referring to 'their' patients (Manthey 1970, Wright 1987). In practice, breaking down traditional patterns of behaviour is very difficult with medical staff who are typically reluctant to communicate with anyone other than the sister. The experience of Weeks et.al (1985) highlighted this when they found that after 8 years of primary nursing the nurses felt isolated and there were communication problems between nurses and physicians because of little time for communication between nurses and patient. By developing a modified primary/team nursing approach they eliminated the problems they had found with primary nursing. Peräla (1988) however had a different experience. She changed communication between physician and primary nurse to a direct approach. They also had first hand information from
each other and shared information with the team as a whole. One of the findings of Perala's study was that there was more interaction between the primary nurse and the patient. According to Zander (1985), there are two areas of work that will influence medical staff to primary nurse; (1) standard of nursing care, (2) communication; if either of these deteriorate medical staff will criticise the initiative.

The future of communication in health care, should be determined by what is direct and effective for those concerned. Changes in how others view the nursing structure are needed before effective change can occur.

Reilly and Fuhr (1983) feel that power relationships are not good for decision making in health care, decisions being best facilitated through work group structures. This view is also held by Bowman and Thompson (1989) who feel that the doctor - nurse relationship needs changing from the sexual power structure, to one that is more collegiate in nature. If decision making is participative and at the right level, nursing groups will be more productive (Reilly and Fuhr 1983, Hernandez et al. 1988). Wright (1987) points out that doctors in particular find it difficult to relate to staff other than the Sister; strategies have to be found to encourage this change in communication. We therefore need to know who generally discusses the patient care issues with medical and paramedical staff?

Who generally discusses patient care with medical and paramedical staff:-

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A named registered nurse</td>
<td>1</td>
</tr>
<tr>
<td>Any nurse available</td>
<td>2</td>
</tr>
<tr>
<td>The sister or nurse in charge</td>
<td>3</td>
</tr>
</tbody>
</table>

This assessment appears as the eighth question in Appendix II

9. THE CONTROL OF THE WORKLOAD

Task nursing is simpler to organise than any other method of care delivery. It is easier to plan because, as Chavasse (1981) points out, the simpler tasks can be given to the least skilled staff member, also the allotted tasks can be completed within a span of duty, and can be given to one or more nurses (Marks-Marar 1978).
A day to day planning of workload is also possible in total patient care assignment. The sister controls the workload based on the patients' needs and the skill level of staff involved (Heslin 1987). Patient allocation works in much the same way as total patient care with staff being given patients on a shift by shift basis or a weekly allocation (Marks-Marar 1978). Progressive patient care is organised in geographical areas, usually four (intensive care, high care, average care and minimal care). The nurse in charge assesses the level of dependency, patients are then moved into the appropriate group which has the staff with the relevant skill level (Sjoberg et.al 1971). Within team nursing a team of nurses has a given number of beds, usually in a geographical location, with patients given on a basis of available beds. Primary nursing has the sister controlling the workload, here she assigns new patients to primary nurses based on her knowledge of the workload and the nurses' interests and special abilities (Manthey 1970). Wright (1987) however has seen varying types of workload control in primary nursing settings. In some the senior nurse on duty allocates patients, others have a mutual agreement as to who will receive a particular patient Wright (1987) himself believes that the choice should be made by the staff on site.

If by the creation of a companionship attachment the nurse is given accountability, responsibility and authority in matters of nursing care, it is only right that she has some say in her workload. The pace of work, turnover and dependency of patients invariably influences any group of nurses' ability to deliver all care needs. In most settings the workload will be greater than the individual nurse can cope with. Even so, she should still have the opportunity to negotiate her workload, as this will influence her ability to make effective attachments. We therefore need to know how the workload is controlled?

How is workload controlled:-

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) By the sister or nurse in charge after negotiating activity</td>
<td>1</td>
</tr>
<tr>
<td>b) By the sister or nurse in charge according to work activity</td>
<td>2</td>
</tr>
<tr>
<td>c) By the sister or nurse in charge regardless of work activity</td>
<td>3</td>
</tr>
</tbody>
</table>

This assessment appears as the ninth question in Appendix II.
Florence Nightingale set the scene for nursing leadership style, when she established a hierarchical disciplinarian system designed to indoctrinate the young trainees, thus creating an unquestioning workforce (Glazer 1966). This system pervades nursing today. Fretwell (1980) observes that rigid routine, puts certainty into the work and reduces anxiety. This results in an autocratic leadership style that does not encourage enquiry. The hierarchy of tasks inherent in this system is seen as 'clean', with doctors retaining control over what is happening without actually being on the ward. Thus, in traditional structures, the real leadership comes from medicine, not within nursing itself; the doctor thus has authority without accountability.

Total patient care assignment and team nursing looks for de-centralised decision making (Heslin 1987). However, the hierarchical structure and attendant relationships persist. Primary nursing can only operate with a democratic leadership style; Manthey (1970) states that the atmosphere in primary nursing must be one in "which individuals feel free to learn, to risk, to make mistakes, and to grow" (P.74). A leader who values others is central to Primary nursing. Relationships should be more 'peer' in an environment that it is not threatening (Binnie 1987, Bowman and Thompson 1989). Thus in primary nursing there should be a horizontal support structure (Sparrow 1986) in which the sister manages 24 hours a day, and has the authority to manage effectively, with a clinical leadership style (Hunt 1988).

In terms of productivity, Hernandez (1988) found that those who go by the book run less productive groups, than those who utilise formal and informal group meetings, for decision making. Further, supportive or open groups have more self worth, encouraging staff to concentrate on their work.

In order that the attachment between the nurse and patient will be allowed to flourish in a way suitable to the two personalities involved, we want to know whether the leadership style will encourage or inhibit this process.
How are staff relationships conducted:—

<table>
<thead>
<tr>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Staff are involved in key ward issue decisions</td>
<td>( ) 1</td>
</tr>
<tr>
<td>b) A mixture of a) and c)</td>
<td>( ) 2</td>
</tr>
<tr>
<td>c) Sister makes decisions independently</td>
<td>( ) 3</td>
</tr>
</tbody>
</table>

This assessment appears as the tenth question in Appendix II.

11. COMMUNICATION WITH RELATIVES

In her study of nurses Menzies (1960) considered that relatives harbour resentment against nurses. They may not have been able to cope with the sick person, and they may well be jealous of the nurse's intimate contact with the patient. She feels that both the patient and relatives handle the nurse in such a way as to project their anxiety and depression onto the nurse. As a result of this it is thought that the nurse avoids contact with both patient and relatives, thus preventing real contact. Some relatives find the hospital situation so distressing that they themselves refuse to be involved with decision making, responsibility being put back onto the 'hospital'.

There is very little recognition of the relatives when considering patient care. Wright (1987) makes the point that primary nurses by involvement with both patient and family can give a heightened sense of responsibility for care; there being a recognised need in primary nursing that the family may well themselves need care, consideration and education. In Haff et.al.'s (1988) study of interaction of primary nurses, in long stay institutions, found that families of patients felt that primary nurses almost always discussed issues related to the residents' care.

The relative is clearly very important to the patient and can play a role in direct care and in helping the patient accept information that is relevant to their future health. Where there are good patient/nurse attachments, the nurse would see the relative as someone who should be involved with these therapeutic relationships. The best option being that the attached nurse would do all the important interviews with the relative. We therefore need to know which nurse has responsibility for communication with relatives.
Which nurse has responsibility for communicating with relatives:-

<table>
<thead>
<tr>
<th></th>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>A named registered nurse from admission to discharge</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>The nurse allocated to the patient for a series of shifts</td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>The nurse allocated to the patient for a shift</td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>The sister or nurse in charge</td>
<td></td>
</tr>
</tbody>
</table>

This assessment appears as question eleven in Appendix II

**EVALUATION OF SCALE**

**Scoring**

Each component of the "ward work method assessment" (Appendix II) requires a response. Each response is given a score. A total score is obtained by summing the scores for each of the eleven components. This produces an attachment score which reflects either primary, team or task styles of work method. Individual elements of the scoring are not reflective of the organisational style. The style is determined by the overall score.

It can be seen in Fig.(IV) that the score range starts at 11 and finishes at 39. A low score indicates good conditions for effective patient/qualified-nurse attachment. Higher scores indicate poor opportunity for patient/qualified-nurse attachment. As the score rises, the more fragmented care becomes. This means that more staff will interact with the patient to deliver care and this, in turn, will determine the organisational style. What should be expected from this scoring system is scores ranging from 11 - 20 would indicate a primary style, 21 - 30 a team style and 31 - 39 a task style of nursing organisation.

**Pilot Testing**

The check list was initially informally tested on eight wards in the author's place of work. This lead to clarifying the wording of some of the eleven assessment factors. It was also felt necessary to produce a method of self assessment, for ward staff, as a means of checking the "ward work method assessments" face validity.
To test for reliability prior to the main study would have proved very difficult. A large number of hospitals would have needed to be approached for access. If included in the evaluating of the assessment it would have posed problems for including them in the main study. This in turn would have meant a need to gain access to more hospitals. Time, travel and resources indicated that the best option was to build the testing of the "ward work method assessment" into the main study.

Self assessment

In order to check that the author's assessment of work methods using the checklist agreed with the ward sister, a self assessment sheet was devised (Fig. III). This sheet describes three styles of organising nurses' work, primary, team and task styles. Jargon was omitted from these descriptions in order not to mislead or confuse. The sister was asked to tick (✓) the one she considered reflected most accurately how her ward organised its work. In the event of a disagreement between the work assessment score and the self assessment sheet, the respondents would be omitted from the main study.

Procedure

This classification is based on the relationship between the qualified nurse and patient. Therefore information is obtained from nurses holding the rank of staff nurse. On visiting a hospital ward, the author initiated a discussion structured around the assessment components. These discussions were held in private. Issues related to practice would be clarified. The interviewer would make a judgement as to the most appropriate response for each assessment component. The ward's score is then compared to the score ranges (see section on scoring) and classified. A crosscheck is then made against the sister's self assessment sheet (Fig. III). The decision to include/exclude from the study is then made.
Self Assessment Sheet

Please place a tick in the box of the description which most closely represents the way you organise the ward.

1. A group of qualified and unqualified nurses has collective responsibility, accountability and authority for the care of a group of patients from admission to discharge. The individual nurse may look after specified patients or be given tasks: these approaches are mixed, depending on how busy the ward is. The sister has an advisory and supportive role.  

   (THIS DESCRIBES TEAM NURSING)

2. A clear line of authority exists in which the sister sets standards by advising on and controlling care. She is supported by qualified nurses to maintain an overall ward standard. Senior nurses provide technical care, such as dressings, and junior nurses provide care commensurate with their experience, such as bed baths. Care is determined by the available time and the condition of the patient. Work is organised on a daily basis.  

   (THIS DESCRIBES TASK NURSING)

3. A nominated registered nurse has responsibility, accountability and authority to assess needs and prescribe care for a group of patients from admission to discharge. Support staff help deliver and evaluate care. The sister's role is purely advisory, supportive and educative.  

   (THIS DESCRIBES PRIMARY NURSING)
Assessed Wards

By writing to nursing directors, the author gained access to 16 hospitals. Of these 16 hospitals, 13 were included in the study. One of the omitted hospitals did not wish the author to pursue the study. The other two hospitals directed the author to areas not appropriate for the main study (paediatric and orthopaedic wards).

Once in the hospital contact was made with nurse managers of either medical, surgical or elderly units. The nurse manager discussed their unit and how the wards organised care. Wards within a unit which claimed to be operating either primary or team style nursing were visited. If sister was agreeable, the ward was included in the study.

From these 13 hospitals, a total of 32 wards were assessed for their method of work. Of the 32 wards assessed, 28 wards were included in the study. These 28 wards were included because the "ward work method assessment" score and the "self assessment" sheet were in agreement as to the work style operating. The results of these agreements can be seen in Fig. IV. A further breakdown of each of the 28 wards, their attachment score and clinical specialty can be seen in table XI.

The four wards excluded from the study produced discrepancies between the "ward work method assessment" score and the "self assessment" sheet. One ward claimed to be operating primary nursing on the "self assessment" sheet but achieved a score of 29 on the "ward work method assessment". This score classifies the ward as a weak 'team' nursing. The remaining three wards all claimed to be practicing team nursing. Their scores, however, were above 31, this placed them in a task style nursing and omitted them from the study. These three wards reflect a trend within nursing in which a progressive work style is claimed to be practiced but little organisational change has in fact been made. One reason why task style nursing was omitted from the study was because very few nurses would admit to using the method.
Reliability

Currently there is no way of establishing the organisational mode of a ward objectively. This instrument was designed to determine, through the classification of nurse's work, a means of controlling a major independent variable in practice research. Research comparing the effectiveness of various nurse's work methods to date has been undertaken on the assumption that the stated work method is genuinely practiced. The main study in this thesis is the first time this classification system has been tried. Clearly there is a need for this instrument to be more rigorously tested. Its' use in the main study does show objective practice differences which gave the author more confidence in the comparisons made than he would have otherwise felt.
ATTACHMENT SCORES AND SELF ASSESSMENT: RESULTS OF WARDS ADMITTED TO THE MAIN STUDY (CHAP. 5)

**SELF CONFESSED 'PRIMARY' WARDS**

**ATTACHMENT SCORE**

**SELF CONFESSED 'TEAM' WARDS**

**ATTACHMENT SCORE**

These represent agreement between the "WARD WORK METHOD ASSESSMENT" (APPENDIX II) and the WORK 'SELF ASSESSMENT' SHEET (FIG. III)
CHAPTER 4

LITERATURE ON NURSES' STRESS

Nursing is a stressful occupation. All human services like social work and nursing are stressful because of the involvement with people who have difficult problems to overcome. Emotional problems of the patient can often be transferred to the carer, making their job more difficult and stressful. There is also the problem within nursing of retaining qualified staff, the average length of professional life of nurses being seven years. Much of this loss is accepted as 'female' labour wastage, but there is evidence that nurses feel ill equipped and trained for the rigours of the work they have to do. (Moores et.al.1982; Bowman and Meddis 1990). The complexities of the working situation in acute hospitals with multiples of professions, vested interests and power brokering makes assessment of the situation very difficult.

The author's observation of professions and emerging professions within the health service is that status is measured by their influence and control of nursing staff. Power is taken by dominating the unstable nursing workforce acquiring authority, without responsibility. Not only are nurses vulnerable in this respect they are also the only service that gives direct care and treatment to patients 24 hours a day. Historically the only model used for prescribing nursing action has been the medical model thus giving nurses a weak position in influencing care outcomes. Recent nursing theories and work approaches lay much of what has gone before to one side. Nurses acknowledge the contributions of others as valid and now gradually accept their own contribution as therapeutic with an end in itself (Pearson 1988).

Nursing work methods, up to the concept of primary nursing have been logistical exercises aimed at delivering the medical treatment in the easiest way for economy, or to make the work more enjoyable for nurses. Primary nursing requires commitment, it gives qualified nurses a true professional role of nursing assessment, prescription, care delivery and evaluation with responsibility for the outcome of care to specific patients.

Many excuses are put forward by nurses as to why they should not change their practices towards primary nursing, one is that it will be more stressful for nurses because of their direct involvement with patients at a deeper level than previously experienced. While this seems a
rational argument, the author's experience is that other factors mitigate this, such as their greater appearance of confidence and independence (Bowman and Meddis 1990), their greater length of stay in post than other units (Unpublished information in the author's Unit reports), and their greater maturity as expressed in less authoritarian approach to work (Bowman 1989). Stress at work has many bad effects on the individual and on their productivity (Hernandez et al. 1988). It is therefore important for nursing to know whether nurses can survive the impact of a change in relationships not only with the patients but with other health workers when they are working through primary nursing. Nurses need to know whether different work practices influence the stress felt at work.

The intention of this research is to design a stress measure and apply it to nurses working two discrete work methods namely 1) Primary nursing style 2) Team nursing style. Thus some of the answers as to whether primary nursing is more stressful may emerge.

The volume of literature on stress is enormous. For the purpose of this study the literature concentrated on is that which directly addresses the problems nurses experience in their work. Non nursing literature is used for clarity, originality or authority.

The bringing together of the various descriptions of stress is probably best reflected in two papers that would fit the nature of this study. The first is a general description and the second is specifically adapted for work stress. Maes' et al. (1987) definition is "The term stress refers here to a state of imbalance within a person, elicited by an actual or perceived disparity between environmental demands and the persons capacity to cope with these demands" and related to life events "Events operate as stressors to the extent that they tax or exceed the adaptive resources of the person" (P. 567). The job stress definition of La Rocco et al. (1980) states "...we see many objective work situations or conditions as potentially stressful. such conditions may give rise to perceived job stress - a perception that environmental demands exceed the abilities of the individual or that environment supplies and opportunities will leave major needs or motives of the person unmet. Essentially, there is a perceived incongruity or lack of fit between the person and the environment........ Perceived job stress, such as perceptions of excessive work load or role conflict, may adversely

-72 -
effect general feelings about work, such as job satisfaction, which are termed job related STRAIN... In turn, both perceived job stress and job strain may affect physical and mental health."(P.203).

STRESS IN DIFFERENT CARE SETTINGS

The care nurses give to dependent people is varied in both location and technology. The environments range from 'home' type care of mental and physically handicapped to the highly technological environment of intensive care units. All people in human services have to cope with the stresses imposed on them by the people they are serving. The stresses of caring for those with mental handicap may be much different from those nurses who are involved in critical care of the intensive care unit in a general hospital, but the effect on the carer may be the same. There is also the assumption that it is the work that is the creator of stress in nursing, yet it may well be domestic problems that are causing more distress for the nurse than the dying patient she is caring for. All nursing speciality units tend to claim that their work is more stressful than colleagues in other settings. The culture of nursing does not allow itself the normal expression of grief or stress in staff, although they might encourage it for patients or relatives. As Parkes(1986) observes, an entire ward staff may be affected by grief to a pathological level because of this failure to openly express feelings. If nurses do express feelings they are likely to be considered weak or wrongly employed.

Nursing literature often makes claims that night nurses have special problems that can become difficult to cope with. They are reported to feel more like custodians than treatment agents and often feel left out, especially in discussion on care and they tend to feel isolated (Hay et.al. 1985). Davis(1984) claims that the anti-social hours of night work exclude night nurses from society generally, this isolation making them more vulnerable to physical illness.

The conditions under which nurses work will have an influence on how they view their job, much as any other kind of work. What can be said to be different about nursing is the nature of the work; it is likely to be the job content that will provoke stress. An example of this is
the incontinent patient. Estimates of the extent of incontinence vary and have been put as high as 76% of patients in long stay settings (Wells 1975). Although incontinence is not life threatening, it is distressing to both patient and nurse. A study by Yu and Kaltreider (1986) showed that nurses had both positive and negative feelings towards incontinence thus creating psychological stress related to this problem.

The very acute areas of health care such as accident and emergency work and intensive care are claimed to be very stressful. The cause of the stress, according to Phipps (1988) are time pressures, critical decision making that cannot easily be reversed, dissonance with patients that do not turn out to be emergencies, and the extended nurses role into areas of work often claimed by medicine. Vincent and Billings (1988) compared 3 intensive care units (I.C.U.s) for stress, using a stressors for nurses form and Maslach's burnout inventory. Their findings were that the management and organisation style made significant differences for conditions that would precipitate burnout. In comparing stress in I.C.U.s with non I.C.U. nursing departments Keane et.al. (1985) found that the stress was no different in I.C.U.s and medical and surgical wards. This is supported by Johnson (1979), who found no difference of state and trait anxiety between I.C.U. nurses and non I.C.U. nurses. Maloney (1982) however, on comparing I.C.U. nurses with non I.C.U. nurses, found I.C.U. nurses less anxious than other groups.

Nurses in Psychiatric Hospitals have been assessed for work satisfaction and stress by Landeweerd and Boumans (1988), they found little difference between admission departments, short stay and long stay departments in terms of stress felt, but the short stay departments, (short stay being up to 2 years), were more negative on job satisfaction. The authors considered that the reason for this was in having unrealistic goals of trying to re-socialize patients who have little hope of changing. Power and Sharp (1988) compared mental handicap nurses' sources of stress and job satisfaction with hospice nursing staff. The mental handicap nurses were more satisfied with promotion prospects but less satisfied with fellow workers, pay, supervisory staff and had less job satisfaction than their hospice colleagues. Stress for the mental handicap nurse emanated from the environment, workload and conflict with other nurses, whereas the stress for hospice staff came from conflicts associated with caring for the dying.

-74 -
On interviewing hospice staff over a period of 3 months Munley (1985) categorised nurses’ stressors as endogenous and exogenous, the endogenous stressors being: 1) self imposed in trying to accomplish too much; 2) cyclical emotional difficulties associated with starting and terminating relationships; 3) disillusionment as to day-to-day reality and what is desired to achieve. The exogenous being: 1) sufferings of client and relatives; 2) work load, (this is contradicted in Power and Sharp’s study [1988]); lack of control in the patients home; 4) difficulties in integrating hospital and home care.

Firth et.al. (1987) found that depression was responsible for problems and decision making avoidance among nurses in long stay wards. This 'professional' depression is a characteristic of burnout. The authors felt that the main issue in their findings was a lack of personal accomplishment with the result that some staff directed hostility into themselves. Stanek (1987) reports the result of her study comparing stress and burnout in nurses from hospitals and the community; her findings were similar to many other authors in that no significant difference between the groups could be found. Nurse educationists were studied by Dick (1986) to establish whether the management style and collegiate support had any bearing on burnout. Her findings were that management style and collegiate support were both significant factors; poor collegiate support was a predictor of burnout.

There are no studies dealing with different work methods and stress. Among nursing folklore, within meetings and in conferences there is an assumption that the style of organising work that takes the nurse closer to the patient is more stressful than other work approaches. This view is expressed in an opinion piece by Holmes (1987), who states; "Realistically, primary nurses often suffer from fear, guilt, and a sense of being overwhelmed by events and rejected by those for whom they most care ........ intense involvement with patients, the need to assert oneself within a complex network of communications, and the burden of accountability."(P.62). A similar view is expressed in a letter by Stott (1988) when he asserts; "The great advance in the quest for individualised care should have made the care of the dying easier to cope with. Instead, it probably put more stress on the personal nurse because of the inescapable responsibility it brings."(P.13). The assumptions made are based on the idea that only the logistics of the
care setting are linked with changing to individualised care. In fact, the whole care organisation, relationships, and skill training should create a different working climate giving nurses more control of their work and the conditions under which they interact with patients.

LEARNER NURSES AND STRESS

Student and pupil nurses are vulnerable members of a ward team; they are temporary team members and are often put in circumstances in which patients look to them for help and support rather than qualified staff (Knight and Field 1981). In traditional nursing environments, students are reported as having primitive anxiety reactions, are made to feel guilty about the effects of their actions, and made to feel inconsequential (Menzies 1960; Fretwell 1980; Marson 1980). Conditions like these within a group at work could readily provoke stress in most individuals, especially defenceless students. Probably the most vulnerable time for learners is the first few months of their training. She/he is in the presence of a barrage of novel situations; new classroom, new colleagues, a new environment, wards of unfamiliar people and authority figures with the pressure of human dependency. The experience of learners in this situation makes half of them have negative feelings about the ward sister/charge nurse (Hyland et.al.1988). Thus in the early part of their training, many new recruits to nursing have an impression of poor ward atmosphere, a situation hardly conducive to confidence and learning.

Although there is not a great deal of hard evidence for student stress, teachers of nurses are encouraged to prepare students for the stresses of their work. Booth et.al.(1988) suggests a problem solving approach in helping students to recognise stress in themselves, while Strauss and Hutton (1983) suggest a transactional approach to enable students to recognise stress in their learning environment. By using such a model it is thought the tutor would appreciate the complex responses to stress in students as well as identifying the students coping mechanism.

The nurse teachers themselves are provokers of stress according to Kushnir(1986), who set out to establish how clinical instructors might create stress and reduced learning in the practice situation. From students' written material of clinical stressors, they analysed data for:
1) situation of occurrence, 2) how stressors behaved, 3) how the students reacted and 4) the psycho-social processes involved. Analysis showed that three quarters of the stresses were due to novel situations; the instructors were critical and inconsiderate in conditions where learners were in the presence of a patient and did not feel proficient. A third of students were aware of physical discomfort associated with these experiences. Clinical interaction is only one aspect of the learners working life; Zryewskyj and Davis (1987) used a classification of stress sources for students in their study: 1) Personal, 2) Clinical, 3) Academic, 4) Social. They found that 78.4% of the students' stress was due to academic and clinical causes with 13% coming from personal causes and 8% of a social nature, the control of learners' placements and deadlines was thought to need re-thinking.

Williams (1988) used a cognitive model to study how students assimilated information related to tolerance, ambiguity and stress. The instrument used established one of two responses: 1) individuals who approach tasks analytically (FI) and 2) global thinkers who see the whole rather than the individual parts (FD). His findings were interesting in that the student nurses were significantly more (FI) than the average college female student. Nurses should fit into (FD) as the characteristics for (FD) people are those of gregarious individuals whose performance is for group situations and an interest in other people. Williams suggests that nursing is changing to an (FI) profession with nurses becoming less tolerant of ambiguity. Their stress scores in his study were also higher than normal, creating poor learning environment for students.

A study by Parkes (1982) addresses the problem of whether the type of ward (medical/surgical) and sex of patient (male/female) are in any way different regarding the stress imposed on student nurses. The study was longitudinal, taking data over the two ward periods. Thus there was direct comparison of the same subjects in different work settings. Her findings were that medical wards were more distressing than surgical wards, with male wards being favoured to female wards, and greater job satisfaction in male wards.

The result of the few studies available indicate that opportunities for learning are at their best reduced in most clinical situations because of the stress. The stresses have other effects on the student that are as
important and, in some cases, of much greater importance than learning impairment. On looking at short term absence and sickness in third year student nurses, Price (1984) found that the greatest sickness and absence occurred in the first two years of training. Her findings suggest that poor off duty planning with infrequent week-ends off was a factor associated with short term absence. More seriously, Haack (1988), studying stress and impairment (the use of alcohol and drugs affecting judgement and function) among student nurses, found they had symptoms of burnout of the same magnitude as working nurses. These symptoms increased during their training period; their depression increasing with burnout, the depression lessening as they become more unfeeling towards patients. Her study showed that student nurses were at risk to disorders that were stress-related, e.g. burnout, drug abuse, and depression. A previous study by Haack (1987) showed that student nurses consumed alcohol in the same pattern as other college students, with 14% reporting that alcohol had interfered with their work and education, suggesting abusive drinking.

The studies on student nurses that are available do not shed light on whether they as a group are more stressed than others in the health care field, the strongest evidence within the literature being that the circumstances for training are less than adequate.

STRESS AND HEALTH

The effect of stress on health has occupied a central theme in stress research producing large quantities of research. Clear unambiguous proof of stress illness link is not yet available but the weight of evidence is building in favour of stress-illness relationship. The criticism of the research is the methodological weakness and the number of negative findings (Kasl 1984). For the purpose of this thesis a review of some of the literature will highlight the issues.

The quality of sleep is important to most people and those individuals, such as nurses, who work variable shifts may perceive their job differently if their sleep is impaired. Rahman (1988) determined the quality of sleep in workers working a two shift fortnightly rotation shift and workers working a three shift weekly rotation arrangement. He found
that, compared to day workers, the quality of sleep for those on the two shift system was poorer and in turn those on the three shift system had poorer quality sleep than their two shift colleagues; night work was the main factor in creating poor sleep. Poor sleep in workers could possibly be responsible for injuries. It may be that some injuries acquired at work are caused by stress but establishing such a link is not easy. Two main factors are recognised by Davis (1988) as predisposing to stress related injury; 1) The predisposing personality, whether the person is vulnerable to stress or has a history of psychiatric illness. Other factors may be recent episodes in the person's own life, like a death in the family or missed promotion. 2) The work environment may be physically stressful with high incident of injuries, also, jobs which have great detail, deadlines, boring work routines, physical isolation, temperature extremes, poor lighting and fatigue all contribute to the assessment of an occupational injury. It can be seen that establishing facts for stress related injury is not satisfactory and difficult to incorporate in studies related to stress at work.

The biochemical response to stress is central to the health and stress issue. Demonstration of biochemical changes at various stages before, during and after stressful events give some credence to the stress/illness view. Changes in the immune response have been observed (Stein 1981, Locke 1982); corticosteroids (Rose et.al.1982); catecholamines (Baum et.al.1982, Fibiger et.al.1984a); cholesterol (Lazarus 1978, Seigrist et.al.1988) and prolactin (Delitala et.al. 1987) have all been shown to change as a response to stressful events. Blood pressure and heart rate are also affected in response to stress, (Syme and Torfs 1978, Goldstein 1983). Physiological changes have also been shown to respond to relatively minor life events, for example, Meyer (1987) showed that patients having tooth extractions had a rise in heart rate one minute before injection, with a second rise in heart rate during extraction. This was accompanied by a rise in blood pressure of 10mm Hg systolic.

Bank employees giving lectures as part of their training development have also been shown to have physiological changes as a consequence (Bassett et.al. 1987). These bank employees had elevated urinary adrenaline and cortisol levels immediately after giving a public lecture; salivary cortisol was increased both before and after; Noradrenaline, dopamine, blood pressure and heart rate were unchanged by this form of stress.
Exercise is said to be beneficial in reducing psychophysical stress but there is little evidence for this. Subhan et.al.(1987) have shown in a small sample that an experimental group who participated in an exercise programme had significant improvement in cardio-respiratory measures and had significant reduction in state anxiety compared to the control group.

Isolating the causes of disease/stress link introduces many variables, smoking, alcohol consumption, occupational environmental hazards, sexual hygiene and other personal care behaviours are all implicated. Other attitudes, like compliance to medical treatments, use of routine diagnostic services and seeking health advice, are variables that confound. A study by Thomas et.al.(1979) on medical students found positive evidence to link social distancing by parents to the emergence of cancer. A review of stress and health by Kasl(1984) supports the hypothesis that inability to express hostility or abnormal emotional releases increases cancer risk. Myocardial Infarction, as well as being attributed to health behaviours, is also considered to be heavily stress related. The predisposition of individuals to environmental challenges is thought to be influential in determining whether a person is susceptible to a Myocardial Infarction. Those individuals who readily take up challenges are categorised as type 'A' personalities and are considered vulnerable to Myocardial Infarction (Haynes and Feinleib 1982). Siegrist et.al.(1988) used a blue collar group of men to see if Kaplan's (1982) results on macaque monkeys and the incidence of atherosclerosis could be replicated in man. Kaplan found that two components of stress were influential in atherogenesis in macaque monkeys; 1) threats and challenges to social status were not successfully coped with; 2) low social status and submissiveness. Blue collar workers were chosen by Siegrist as they had little control over their working affairs. He used biological measures and subjective measures related to job insecurity/instability, high work demands and work load perception. His conclusions were that they were at considerable risk to the development of atherosclerosis. The group studied had significantly raised low density lipoproteins (L.D.L.) and high density lipoproteins (H.D.L.) compared to other workers, who were exposed to less stress. They also had highly significant negative differences of occupational instability and job insecurity.
Two reviews related to stress and health express the present situation. Kasl (1984) is critical of the research method of health/stress research, feeling it can be interpreted in many different ways leading to wrong conclusions. He examines the literature pertaining to stress as a reaction to environmental conditions, its suspected cause of myocardial infarction, stress as a cause of cancer, stress at work and biological mechanism. In his review he examines four classes of variables that may be important as possible risk factors that could influence health adversely: "1) selected environmental conditions and experiences; 2) variables thought to be reactions to such environmental conditions; 3) indicators of stress or tension whether or not they are linked up to any particular environmental conditions; and 4) stable personal traits or characteristics that may link up with chronic or repeated exposures or with reactions of distress and tension." (P.321). Kasl explains stress from a life cycle perspective in which certain events are experienced and normative, but when timed wrongly or absent, may constitute stress. From a work perspective the problem is one of overload or underload, which causes problems for job satisfaction, self esteem and depression. His position is that the stress/health link is scientifically unproven because of the numerous variables in the field situation, many of which cannot be controlled experimentally, preventing clearcut causal interpretation.

Maes et al. (1987) see major life events and environmental 'hassles' forming part of the complex maze of contributors. They examine coping, personality characteristics and social support literature for evidence as causative agents, their conclusions being that the evidence was not powerful enough and that research should concentrate on theories or personality, in which the person has to transact in a constantly changing environment. Disease and stress could be linked, according to Maes et al. (1987) in three ways: "(a) stress may have direct psychophysical effects which affect health; (b) stress may lead to health impairment habits and behaviour; and (c) the stresses of illness may cause illness behaviour which influences the course of disease" (P.569). They draw the conclusion that cancer and cardiovascular disease stress link cannot be proven because there is a lack of prospective studies. Associations of stress and disease can only have strength when a definite form of stress and a specific disease occurring in part of the population can be linked. Their understanding of the literature is that only infectious diseases show the strongest association with stress. At its best, the stress/illness association is indirect, but Maes et al. (1987) state that because this is so, it does not mean no relationship exists between stress and disease.
GENDER AND STRESS

Owing to the fact that nursing is predominantly a female occupation it may be relevant to establish whether gender could affect any response to stressful situations. Women at work may face unique stresses in their place of work, for example, family problems may impinge on work as they are still the main carers of children in society. Townsend (1985) points out that husbands still do not take their share of home and child responsibilities despite the fact that working women make the difference within many homes of having a poor income to a middle income. Other forms of distressing conditions at work include discrimination, poor mobility, sexual harassment and unsuitable employment (Lennon 1987, Freedman and Bisesi 1988). Competing for promotion at work mitigates against female mobilisation to executive jobs in industry. Even in nursing Senior Nursing posts tend to be filled by a disproportionate percentage of men (Freedman and Bisesi 1988, Simms 1989). It may be that women who do compete for higher posts in organisations experience more stress because they feel that in order to compete they have to alter their socialisation and behave like men.

In what way are men and women different as regards stress at work? Social roles and particularly gender roles are said to be influential in shaping attitudes (Miller 1972). In a study by Cherry (1984) she found that out of every five women two were feeling strain - a similar comparison with men. This is supported by Freedman and Bisesi (1988) who make the point that stresses emanating from the work itself are the same for women as for men. If the response is different in the sexes to a stressor then the differences can be said to emanate from the sex roles. What does seem to happen in response to stress is that illness patterns differ between men and women. Women tend to develop minor physical illness, become demoralised and have a higher rate of psychological illness, whereas men take up drinking and suffer serious physical illness (Jick and Mitz 1985, Lennon 1987). Other differences between the sexes are that female executives tend to be childless and either single or divorced, while male executives tend to be married and have children (Freedman and Bisesi 1988). Women who trade-off their female role for a male role may also be different in their response to stress by taking up male psychopathology (Lennon 1987)
Research by Dearborn and Hastings (1987) showed that women assessed as type 'A' personality had been in their jobs for shorter periods than type 'B' personalities, they worked longer hours, were more dissatisfied with their jobs, were more nervous in any situation and had more dysphoria. The same authors state that type 'A' personality women in the U.S.A. were four times more likely to have a coronary and the incidence of type 'A' personality was as prevalent in women as in men. Findings in Lennon's work (1987) indicated that gender differences were modified by occupational characteristics and in highly complex situations men's distress exceeds that of women. In part-time work strain was less likely to be felt by women, the greatest strain being felt in jobs of higher order such as supervisory work (Cherry 1984). Cherry also found that those under strain had more symptoms such as headaches, sleep problems, stomach and back pains.

The evidence available suggests that women are no more prone to stress than men. Cherry (1984) makes the point that there is no justification for isolating men and women in stress studies and certainly no reason to suppose that women are more susceptible to stress than men. An important point to establish in assessing stress among a predominantly female workforce as nursing.

OTHER STRESS CONSIDERATIONS

Human services like nursing are by their nature stress provoking. Not only does the close interaction between the dependent person and the carer have numerous reasons for misunderstanding and conflict, so does the environment in which they operate. Fitter (1987) when discussing new technology and nursing makes the point that nurses are seldom involved in the introduction of new technology despite the fact that they are more likely to be the main users; lacking recognition of contribution within the place of work is a common stressor. Patients are often labelled as awkward or difficult by nurses making the patient unpopular (Stockwell 1984). Podrasky and Sexton (1988) on studying nurse reactions to difficult patients, found that nurses tend to describe patients as difficult when the behaviour characteristics are modifiable, not because of any medical label. Attempting to cope with behaviour that is perceived as difficult creates stress for the nurse, which if reacted to inappropriately can lead to their being struck off the practicing register. An example of the problem is that of all the serious complaints received by the Health Ombudsman, half are against nurses. The United
Kingdom Central Council for nursing heard 126 cases of professional misconduct against nurses in 1985/6. Of these cases 46.8% were against enrolled nurses and in 55% of cases action was taken against the nurse (Vousden 1987). The working conditions for nurses are thought by some to encourage nurses to smoke more than females in other occupations. Elkind's (1988) study showed that student nurses were twice as likely to smoke as student teachers on entry to their course. Nurses smoked for tension relief while student teachers smoked to appear mature; the nurses experienced greater stress than the teacher group in practical aspects of their work. Stress smokers were also more likely to miss work due to affective symptoms according to Parkes (1983). From these few papers we can see that nurses perception and behaviour towards patients may be less than empathetic and the stress experienced at work may encourage unhealthy maladaptive behaviour.

The moral and ethical components within nurses work create their own stress. Cameron (1986) makes the point that due to technological development, nurses now have to cope with decisions which were inconceivable a few years ago. A major problem nurses have in coping with moral and ethical problems is that they are lacking in any framework from which to cope. Similarly, Wilkinson (1988) describes how nurses make hard moral choices in many circumstances that involve the sustaining of life or acceptance of death, yet may not have any controls over the situation they find themselves in. In her study Wilkinson found nurses to be involved with distressing cases in which: 1) life was being prolonged (active treatment of dying patients); 2) involved in unnecessary testing of dying patients; 3) having to lie to patients; 4) poor or incompetent treatment by physicians. All but three of her 24 subjects agreed that they had moral distress at least once a week. Most people would imagine that the physician has more stress than other health workers because of the perceived notion of decision making; Wolfgang (1988) used a health professionals stress inventory (H.P.S.I.) to compare stress between physicians, pharmacists and nurses. The nurses were found to have significantly more stress than the pharmacist or physician with the pharmacist in turn having significantly more stress than the physician. He attributed the nurses higher stress to lack of control in work where there is considerable responsibility.
Shift work is considered to have stressful effects on individuals. The disruption of the circadian rhythm is thought to have a negative effect on health, social well-being, family life and social life. Jung (1986) feels that despite the lack of absolute proof, the growing evidence is that shift work, in particular night work, and regular quick change rotation shifts (up to 3 weeks) are particularly stressful. This view is supported by the work of Coffey et.al.(1988) in which different styles of nurses' shifts were assessed by questionnaire for their degree of stressfulness. Their findings indicate a strong association between the type of shift worked and stress, rotating shift nurses had the greatest stress followed by afternoon shift, then the morning and night shift; a weak association between job performance and the shift worked was also demonstrated. A different perspective is expressed by Bosch and de Lange (1987) who were surprised to find that nurses working shifts were no more affected than other comparable groups of day workers; they assumed the nature of the work ameliorated any adverse effects of shiftwork. Finally, Parasuraman et.al. (1982) when comparing shift work associated with primary and team nursing found only partial support for the view that primary nurses' work experience and job attitudes would be better.

Nurses harbour secret feelings about their work which, if not disclosed, could be harmful to them (Larson 1987). These secrets can produce a range of emotion in the nurse from anger to feelings of inadequacy. Hardiness is thought by some(Kobasa et.al. 1981) to be a personality characteristic that prevents individuals 'burning out'. It is characterised by three elements of personality; commitment, control and challenge. The view is that the hardy personality will appraise stress positively and cope more effectively with stress, thus mitigating the effects. By using 'hardiness' as a framework for their stress research on nurses McCranie et.al.(1987) using a hardiness scale found rotational shift nurses more prone to 'burnout' than day nurses working straight shifts. They also found that those nurses with lower personality hardiness reported more symptoms of burnout. But these authors did feel that where stress was high, the hardy personality was still prone to "high levels of burnout",(P.377). Following their study on burnout predictors Hare et.al.(1988) make the claim that nursing burnout is an organisational and personal problem due in the main to relationship problems, ability to relieve tension
and focusing on the way problems are resolved.

The general nature of stress in nursing does not seem to have changed over the years; the main problems complained of by qualified nurses are lack of role clarity, dissatisfaction, poor self worth, tension and lack of social support, (Lyons 1971, Linder-Pelz 1986) with as many as 30% of nurses experiencing high levels of stress. The social support is also felt by nursing students to be a major cause of stress (Lee 1987). Packard and Motowidlo (1987) found stress to provoke hostility, anxiety and depression, reducing the chances of job satisfaction, supporting Kobasa's (1981) view of hardiness. The personality that Packard and Motowidlo (1987) assessed as having characteristics susceptible to work stress was type 'A', who were fearful of being evaluated negatively. Many of the research results show that confounding variables, methods and instruments still require refining. Studies like that of Numerof and Abrams (1984) which show that the registered nurse has greater stress than licensed practice nurses, conflicts with Dewe's (1989) finding that charge nurses and staff nurses were less stressed than the enrolled nurse. Numerof and Abrams (1984) show that age, length of time qualified, time in post and desire for control were positive features in low stress scores. On the other hand, Dewe (1989) blames anarchistic maladaptive organisational practices, that create feelings of powerlessness, as major structures in the imposition of stress. Other work by Hipwell (1989) indicates work overload and having to cope with death and dying as major contributors to nurses stress. Regardless of this lack of clarity in ascribing cause, most studies agree that nursing is stressful. The real problem for nursing is that stress has been shown to be the reason why most qualified nurses leave the occupation. A study by Finian et.al.(1988) showed that six out of ten nurses intended to leave as a result of their stressful work. This must be bad for the future of nursing if it continues.

QUESTIONNAIRE DESIGN

The questionnaire design was based on the available literature and the author's experience of nurses problems in day to day nursing practice. Eight categories of work stress were taken from available literature with questions for each category developed by the author. The factors established were: 1) Role clarity and
ambiguity, 2) organisational climate, 3) work group relationships, 4) work demands, 5) emotional aspects of patient care, 6) emotional reaction to stress, 7) death and dying, 8) work control.

According to Elliott and Eis dorfer (1982) stressors are attainable from two sources in human research; experimental stimuli or natural events. Experimental stimuli can be in the form of acute stressor, like an electric shock, or a chronic stressor like sleep deprivation. Natural events are categorised into three entities: 1) acute stressors like threats to personal esteem, 2) stress event sequences like a change in status or involvement in bereavement and 3) chronic and chronic intermittent stressors such as work under/overload and role strain. The main study in this thesis is concerned with the natural occurring situation of nurses at work. Parasuraman and Alutto (1981) used an integrated model in order to examine organisational causes of stress; in their model there are three main variables that are thought to influence organisational stress, namely, 1) contextual variables such as shift type, 2) role variables, like the job level, 3) task variables like autonomy and routine.

Larsen (1987) sees the expression of feeling as being a consequence of 'helper secrets' and a way of measuring nurses stress. The expression of these feelings being put into eight categories like, emotional and physical distancing, "Too many demands" to "I want out" (P. 23). The health professions stress inventory (H.P.S.I.) is a thirty item questionnaire used by Woolfgang (1988) to compare different health professionals' reactions to stress at work. The occupational stress of nurses was assessed by Linder-Petz et al. (1986) by asking them to respond to a "current" stress scale of ten items using a Likert type scale, statements were related to how true they reflected their current feelings at work.

Currently there is lack of agreement as to what aspects of the nurses work should be investigated, also whether these 'aspects' of a nurses work can be categorised into discrete areas. There is no consistency or agreement as to which areas of a nurse's work actually produce stress. For example, Numerof and Abrams (1984) saw stress emanating from three areas: 1) stress experienced as a position within an organisation, 2) inter-organisational variables, 3) inter-personal needs. From this they developed a questionnaire that
incorporated six factors: 1) Organisational environment, 2) Work demands, 3) Emotional aspects of patient care, 4) Death related issues, 5) Lack of procedural/administrative support, 6) Supervisors role. Dewe(1988) asked nurses to describe stressful events. From this emerged fifty-three stressful events experienced by nurses; these were then divided into five components: 1) Work overload, 2) Difficulties relating to other staff, 3) Difficulties in nursing the critically ill, 4) Concerns over the treatment of patients, 5) Dealing with difficult or helplessly ill patients. Other literature shows role clarity, ambiguity and work control to be important factors in the production of stress. Further, stress symptoms are a reflection of the impact of the work environment.

The questionnaire developed was based on the construction of stress as outlined in the above papers. In particular the factors outlined by Numerof and Abrams(1984) were considered appropriate, with additions. The questions within each factor however, were based on the authors understanding of nursing behaviour, response and feelings. The main factors established in this questionnaire were: 1) Role clarity and ambiguity, 2) Organisational climate, 3) Work group relationships, 4) Work demands, 5) Emotional aspects of patient care, 6) Emotional reaction to stress, 7) Death and dying, 8) Work control.
A STUDY IN NURSES' STRESS

INTRODUCTION

The intention of this study is to evaluate the effects of work stress on qualified and student nurses. The wards in the study will be classified using the Bowman Nurses' Work Classification. From this classification process nurses working a primary style of nursing and nurses working a team style of nursing will be compared for stress felt at work. The measurement of stress will be by questionnaire. It will be administered in different care settings and among staff organising their work differently. Each sample will have respondents from different health authorities. Analysis will be evaluative with main differences and general trends commented on. The results and their possible meaning will be discussed further.

In this study only wards practising primary nursing and team nursing will be compared. The main reason for comparing these two methods is that within nursing there is a belief that shared responsibility for care is less distressing than taking personal responsibility. This belief is positively stated in the literature by Holmes (1987) and Stott (1988) who feel the burden of personal responsibility for care is too much to ask of individual qualified nurses. A further reason for choosing only primary and team groups is that few nurses admit to organising themselves through a task approach to care. Three of the four wards omitted from this study claimed to be practising 'team' nursing but were assessed as 'task'. There are no studies available with which to compare the stress of primary nursing and other methods of organising care. There are, however, mitigating factors within the structuring of primary nursing that could ameliorate the stresses of closer patient contact. These are:

1. The philosophy is orientated around the nurses' role and responsibilities of care, giving role clarity (traditional care methods being orientated in the medical cure role).
2. The qualified nurse has control over her own decision making and skill utilization.
3. Working relationships have to be more democratic for primary nursing work.
4. The primary nurse has control, accountability, responsibility and authority in her work environment, (with more traditional approaches to organising care responsibility is shared, authority is vested in the person in charge of the ward and it is often difficult to know who is accountable for what).

HYPOTHESIS
Given the contrasts in work organisation methods and philosophy, the researcher hypothesised that two general trends would emerge from this evaluative research:-

1. Team nursing is organised through traditional hierarchies and staff can, between themselves, buffer the effect of patient care stresses; thus they would feel greater stress from organisational aspects of their work than through patient care when compared to primary nurses.

2. In contrast, primary nurses would be less likely to be affected by organisational aspects of their work due to their greater clarity of role and control of the work itself.

The buffering effect due to more traditional hierarchies as proposed by the first hypothesis would show lower scores for the team groups compared to the primary groups in Factor III (Work Group Relationships), Factor IV (Work Demand), Factor V (Emotional Aspects of Patient Care), Factor VI (Emotional Reaction) and Factor VII (Death and Dying). It should be found from the responses to the questionnaire that those nurses practising through primary nursing have lower scores in Factor I (Role Clarity and Ambiguity), Factor II (Organisational Climate), and Factor VIII (Work Control), indicating greater control over the work situation supporting the second hypothesis.

If these differences are to be found then stress coping strategies in the work environment would have to take cognizance of the work style that was operating.

PROCEDURE
To get a representative sample of nurses for comparison, sixteen hospitals from a variety of Health Regions across England were visited. From these hospitals 32 wards were assessed for inclusion. Of these 32 wards
four were excluded because their work method assessment score and self assessment did not concur. This left 28 wards for inclusion in the study from thirteen Health Authorities. The work methods used on the wards were classified using Bowman's Classification System (Chapter 3). Those wards classified as either 'primary style' or 'team style' were included in the study. The subjects included registered nurses, enrolled nurses and student nurses. The instrument used to measure stress was a 64 item questionnaire for qualified staff and a modified 36-item questionnaire for students. Respondents were asked to either agree or disagree with a statement. The qualified nurses' questionnaire examined eight factors of work, stress. These factors were:

I) Role Clarity and Ambiguity Factor  
II) Organisational Climate Factor  
III) Work Group Relationships Factor  
IV) Work Demands Factor  
V) Emotional Aspects Factor  
VI) Emotional Reaction Factor  
VII) Death and Dying Factor  
VIII) Stress Associated with Lack of Work Control Factor

The students' questionnaire examined six factors of work stress. These being:

I) Role Clarity and Ambiguity Factor  
II) Organisational Climate Factor  
III) Work Group Relationships Factor  
IV) Work Demands Factor  
V) Emotional Aspects of Patient Care Factor  
VI) Emotional Reaction Factor

From previous study on attitude change, it is anticipated that students will absorb the atmosphere of their present experience and feel stress in the same way as the qualified staff they are working with.

QUESTIONNAIRE DEVELOPMENT AND PROCEDURE

The questionnaire was developed after reviewing the current literature on nurses stress. This was combined with the authors work experience to form a questionnaire that addressed major nursing work problems (Chapter 4, Page 87). A positive and negative statement was devised for the sixty three components in the questionnaire. It was piloted in two hospitals; twenty staff from each hospital were given the questionnaire and asked to complete it, make any written comments they felt appropriate and return the questionnaire when convenient in
a pre-addressed envelope. After the pilot study either a positive or negative statement was removed from the original questionnaire. This produced a questionnaire that would be less intimidating for subjects. The final questionnaire had sixty four items due to one question that was repeated. A full psychometric analysis of the questionnaire was beyond the remit of the study, but will be carried out in the future.

It was also decided to change the method of questionnaire administration because of the poor return. For the pilot study staff were given the questionnaire with an addressed envelope to be returned when convenient. It was decided that staff on duty in wards selected for the study would be given a questionnaire and return envelope. The senior nurse on duty would be asked to give staff time to complete the questionnaire that day while at work. Staff would be informed we wanted all their opinions as this would be a more accurate representation of nurses feelings about their work. They would be asked to complete the questionnaire on their own having no reference to any colleagues' opinions. The completed sealed questionnaires would be collected three hours later. Thus the questionnaire would be completed by all respondents in their work setting, making the completion of the questionnaire congruent and standard for all respondents.

The position of each question within the questionnaire was determined by random selection. The statements were mixed in a container, removed individually and added to the questionnaire in sequence from statement 1) to 64). Once this exercise was completed the research instruments were ready for application (Appendix V).

SELECTING HOSPITALS

The intention was to take a small sample of nurses from a number of hospitals; taking no more than 30 subjects per hospital. The hospitals were all acute hospital complexes of more than 400 beds. The wards chosen were to have a bed occupancy of over 80%. Initially, hospitals were chosen at random from the Hospital Year Book (1988). The hospitals first chosen were from a 70 mile radius of Leicester with only one hospital per District being included in the study. Once a hospital was chosen a standard letter (Appendix VI.) was sent to the Director of Nursing explaining the research intention and guaranteeing anonymity. A protocol was included with the letter (Appendix VII). Of the first fifteen hospitals approached, ten agreed to participate in the study; of these, eight were practising
either primary nursing or team nursing and were included in the study.

After completing data collection from these hospitals almost all the team nursing data for analysis had been achieved. Only one ward was found to be practising primary nursing. It became clear that to randomly assess wards for primary nursing for inclusion would take an undue length of time. Hospitals were then telephoned and Directors asked whether any of their wards were practising primary nursing. Twelve hospitals were approached, all with negative results. In order to find more hospitals in which primary nursing was practised, the Kings Fund Centre in London was approached (the King's Fund Centre is an independent organisation that helps in the education and development of health care staff). They had just initiated a network for primary nursing and sent a copy of their membership; in this way the researcher was able to gain sufficient subjects for comparison.

The number of people interested in primary nursing according to this list were small in number; the number practising primary nursing were even smaller. Once practising areas were identified from the list, letters were written to the Directors accompanied by a protocol. In this way, access to remaining data was achieved.

In total sixteen hospitals were visited and of these thirteen were selected for the study. Six hospitals were used for the primary nursing data and six hospitals used for the team nursing data. One of the hospitals was used for collecting data for both groups. Table IX shows the number of staff involved from each hospital with questionnaire return rate.

SELECTING WARDS

Once access to a hospital was attained, the Directors would be asked to refer the researcher to an area that required data, e.g. Elderly team nursing. The Nursing Officer of the Unit would be contacted and a date set to visit the Unit. The Nursing Officers were made aware of the intention of the research but were asked at this stage not to disclose its nature to the staff, as the researcher wished to communicate this to them himself. Table X shows the scores of the wards in the study and other components of the classification and selection process.
<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>WORK STYLE</th>
<th>NO. OF WARDS INVOLVED</th>
<th>QUESTIONNAIRES GIVEN TO QUALIFIED NURSES</th>
<th>NUMBER RETURNED</th>
<th>QUESTIONNAIRES GIVEN TO LEARNERS</th>
<th>NUMBER RETURNED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Medical Primary Style</td>
<td>1</td>
<td>14</td>
<td>11</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>Elderly Team Style</td>
<td>2</td>
<td>10</td>
<td>10</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Surgical Team Style</td>
<td>3</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Surgical Team Style</td>
<td>3</td>
<td>9</td>
<td>7</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Medical Team Style</td>
<td>2</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Surgical Team Style</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Elderly Team Style</td>
<td>1</td>
<td>7</td>
<td>7</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Medical Team Style</td>
<td>3</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Surgical Team Style</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Elderly Team Style</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Medical Primary Style</td>
<td>2</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Elderly Primary Style</td>
<td>1</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>Surgical Primary Style</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>Surgical Primary Style</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Medical Primary Style</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>Surgical Primary Style</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
<td>28</td>
<td>121</td>
<td>(92.5%)</td>
<td>99</td>
<td>(92.0%)</td>
</tr>
</tbody>
</table>
CLASSIFICATION OF THE WORK STYLE OF WARDS INCLUDED IN THE STUDY

<table>
<thead>
<tr>
<th>WARD TYPE</th>
<th>ATTACHMENT SCORE</th>
<th>SELF ASSESSED WORK STYLE</th>
<th>NO. OF BEDS</th>
<th>BED OCCUPANCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDICAL</td>
<td>29</td>
<td>TEAM</td>
<td>21</td>
<td>80%+</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>27</td>
<td>TEAM</td>
<td>22</td>
<td>80%+</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>24</td>
<td>TEAM</td>
<td>28</td>
<td>80%+</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>22</td>
<td>TEAM</td>
<td>26</td>
<td>80%+</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>24</td>
<td>TEAM</td>
<td>26</td>
<td>80%+</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>26</td>
<td>TEAM</td>
<td>23</td>
<td>80%+</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>17</td>
<td>PRIMARY</td>
<td>22</td>
<td>80%+</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>11</td>
<td>PRIMARY</td>
<td>28</td>
<td>80%+</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>17</td>
<td>PRIMARY</td>
<td>22</td>
<td>80%+</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>15</td>
<td>PRIMARY</td>
<td>26</td>
<td>80%+</td>
</tr>
<tr>
<td>ELDERLY</td>
<td>29</td>
<td>TEAM</td>
<td>28</td>
<td>80%+</td>
</tr>
<tr>
<td>ELDERLY</td>
<td>29</td>
<td>TEAM</td>
<td>28</td>
<td>90%+</td>
</tr>
<tr>
<td>ELDERLY</td>
<td>29</td>
<td>TEAM</td>
<td>28</td>
<td>90%</td>
</tr>
<tr>
<td>ELDERLY</td>
<td>26</td>
<td>TEAM</td>
<td>26</td>
<td>80%</td>
</tr>
<tr>
<td>ELDERLY</td>
<td>14</td>
<td>PRIMARY</td>
<td>24</td>
<td>90%</td>
</tr>
<tr>
<td>ELDERLY</td>
<td>18</td>
<td>PRIMARY</td>
<td>12</td>
<td>90%</td>
</tr>
<tr>
<td>ELDERLY</td>
<td>14</td>
<td>PRIMARY</td>
<td>28</td>
<td>80%+</td>
</tr>
<tr>
<td>SURGICAL</td>
<td>29</td>
<td>TEAM</td>
<td>25</td>
<td>80%+</td>
</tr>
<tr>
<td>SURGICAL</td>
<td>26</td>
<td>TEAM</td>
<td>25</td>
<td>80%+</td>
</tr>
<tr>
<td>SURGICAL</td>
<td>28</td>
<td>TEAM</td>
<td>28</td>
<td>80%+</td>
</tr>
<tr>
<td>SURGICAL</td>
<td>28</td>
<td>TEAM</td>
<td>33</td>
<td>80%+</td>
</tr>
<tr>
<td>SURGICAL</td>
<td>27</td>
<td>TEAM</td>
<td>25</td>
<td>80%+</td>
</tr>
<tr>
<td>WARD TYPE</td>
<td>ATTACHMENT SCORE</td>
<td>SELF ASSESSED WORK STYLE</td>
<td>NO. OF BEDS</td>
<td>BED OCCUPANCY</td>
</tr>
<tr>
<td>------------</td>
<td>------------------</td>
<td>--------------------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td>SURGICAL 27</td>
<td>TEAM 18</td>
<td>80%+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SURGICAL 28</td>
<td>TEAM 33</td>
<td>80%+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SURGICAL 26</td>
<td>TEAM 31</td>
<td>90%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SURGICAL 17</td>
<td>PRIMARY 26</td>
<td>80%+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SURGICAL 17</td>
<td>PRIMARY 30</td>
<td>80%+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SURGICAL 11</td>
<td>PRIMARY 27</td>
<td>80%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This table shows how the wards were classified for the study and the criteria for inclusion:

- **Column 1** indicates the type of patients treated
- **Column 2** shows the score achieved based on the classification in Chapter 3
- **Column 3** gives the work style as classified by the sister of the ward
- **Column 4** indicates the number of beds on the ward
- **Column 5** the bed occupancy is an indicator of how busy a ward is; wards with less than 80% occupancy were not included in the study as work pressures would not be of a similar magnitude.
Wards were categorised into three specialty care groups, 1) Medical, 2) Surgical, 3) Elderly. The next step was to classify them as to the style of work practiced. The intention was to acquire the same number of respondents in each specialty for comparison, e.g. Elderly team style No. = 20; Elderly primary style No. = 20 (See Protocol Appendix VII.).

SUBJECTS AND QUESTIONNAIRE ADMINISTRATION

The subjects worked on wards that had been classified and accepted into the study. The staff on duty during the day of classification were approached and asked to complete a questionnaire that day while at work. It was felt important that the questionnaire was completed by all respondents in their working environment. The only exception to this process was at one hospital where the clinical teacher in one ward wished to administer the questionnaire. These, like all other subjects, were completed in the working environment. The clinical teacher returned them by post to the researcher.

For the remaining 27 wards, both qualified staff and students on duty were informed that the study was to examine what they felt about their work and were asked to complete the questionnaire within a three hour period and return it in an unmarked brown envelope provided. The researcher then collected the envelopes after the three hour period. The total number of questionnaires given out included 121 to qualified staff and 99 to students. (Table IX).

The most subjects taken from one ward was eleven, the least number being two. The largest sample from any one hospital was 32 and the smallest hospital sample provided seven subjects.

Because the subjects came from small ward groups it is likely that each ward's staff would hold similar views and opinions. Thus the sample cannot be considered an independent one.

SCORING

Respondents were asked to tick one of two boxes as a response to either agreeing or disagreeing with the statement made. A score of one is given when a statement elicits a stress response to a question. For example agreement to the statement, 'It is better to keep your opinion to yourself on this ward', would give a score of one, and
disagreement with the statement would give no score. By adding all
64 scores individuals would reflect a personal stress score. This personal
stress score is added to the group score, e.g. qualified staff, medical,
team nursing. A model 'NO STRESS' response to the questionnaire is
illustrated in Appendices IV and V

ANALYSIS
The purpose of this study was to test the commonly held view that primary
style nursing is more stressful to the nurse than team style nursing.
The data collected was anticipated to be large in quantity, e.g. 100
qualified nurses responding to 64 statements and 100 students responding
to 36 statements. In order to analyse the data for the purpose of this
study, a descriptive approach was considered appropriate. The most useful
descriptive methods for this was mean scores, standard deviations,
standard errors, percentages and two-way analysis of variance for comparing
perceived stressors and stress symptoms.

RESULTS
RESPONSE RATE
Of the 121 qualified nurses that were given questionnaires, 112 (92.5%) were returned. Of these 6 (4.9%) were void due to incomplete data leaving 106 (87.6%) of the sample available for analysis. The qualified staff sample included 49 (46% of the available sample) enrolled nurses, and 57 (53% of the available sample) registered nurses. Similarly, of the 99 questionnaires given to students, 92 (92.9%) were returned and available for analysis. Of these 51 (55.4%) were from first year students, 21 (22.8%) were from second year students, and 20 (21.7%) were from third year students.

OVERALL STRESS SCORES
The qualified nurses working a primary style work method had a mean stress score of 23.2. Those qualified nurses working a team style work method had a higher mean score of 29.3. The students' pattern was similar with students who worked a primary style method having a mean score of 8.8 and those working a team style method having a higher mean score of 10.96. (Table XII). These results showed a statistically significant difference between the two qualified staff samples (t = 3.22, df=- 104, P < 0.005).
See Fig III

<table>
<thead>
<tr>
<th></th>
<th>Qualified</th>
<th></th>
<th>Students</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>±2 S.E.</td>
<td>Mean</td>
</tr>
<tr>
<td>Medical - Primary Style</td>
<td>21.6</td>
<td>7.7</td>
<td>3.6</td>
<td>7.9</td>
</tr>
<tr>
<td>Medical - Team Style</td>
<td>23.8</td>
<td>7.5</td>
<td>3.2</td>
<td>7.5</td>
</tr>
<tr>
<td>Surgical - Primary Style</td>
<td>26.2</td>
<td>8.9</td>
<td>4.2</td>
<td>10.0</td>
</tr>
<tr>
<td>Surgical - Team Style</td>
<td>35.9</td>
<td>6.4</td>
<td>2.8</td>
<td>11.7</td>
</tr>
<tr>
<td>Elderly - Primary Style</td>
<td>19.9</td>
<td>13.8</td>
<td>8.0</td>
<td>7.6</td>
</tr>
<tr>
<td>Elderly - Team Style</td>
<td>28.1</td>
<td>10.3</td>
<td>4.6</td>
<td>13.6</td>
</tr>
</tbody>
</table>

Table XI
### Table XII

**MEAN STRESS SCORES, STANDARD DEVIATION AND STANDARD ERROR OF SAMPLE MEAN IN ALL PRIMARY AND TEAM STYLE GROUPS**

<table>
<thead>
<tr>
<th></th>
<th>Qualified</th>
<th></th>
<th></th>
<th>Students</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>S.D.</td>
<td>± 2 S.E.</td>
<td>MEAN</td>
<td>S.D.</td>
<td>± 2 S.E.</td>
</tr>
<tr>
<td>PRIMARY STYLE</td>
<td>23.27</td>
<td>9.9</td>
<td>2.9</td>
<td>8.8</td>
<td>5.1</td>
<td>1.74</td>
</tr>
<tr>
<td>TEAM STYLE</td>
<td>29.3</td>
<td>9.5</td>
<td>2.48</td>
<td>10.9</td>
<td>4.9</td>
<td>1.3</td>
</tr>
</tbody>
</table>
Fig. V

(QUALIFIED STAFF) COMBINED GROUP MEMBERS MEAN STRESS SCORES AND ±2 S.E.

101
MEDICAL, SURGICAL, ELDERLY

The mean stress scores for each group of the 6 work environments are expressed in Fig. V. Table XI shows means score, standard deviation and standard error of the sample mean. Qualified staff working in the three primary nursing environments all have lower scores than their colleagues working team style. Similarly the combined scores of the primary groups are lower than the team groups (Table XII).

When comparing primary style nursing within each specialty, the surgical and elderly groups have a clear mean score difference. The two medical groups show only a slight difference. The two medical and surgical groups registered nurses have greater mean stress scores than their enrolled nurse colleagues. However, the elderly groups show a reversal of this pattern; enrolled nurses express greater stress (Fig.VI). Similarly the students' stress scores are more markedly different for the surgical and elderly specialties. These show a lower mean stress score that favours primary style nursing. The two medicine student groups show that the marginally lower stress score favours students working team style nursing.

INDIVIDUAL STRESS FACTORS

Tables XIII and XIV give a breakdown of the individual questions percentage stress scores within each factor. A plus (+) equates to a reduced stress score in the primary style group, and minus (-) equates to a reduced stress in favour of the team group within the named specialty. By the use of a minimum 10% advantage or more in each specialty to indicate a positive advantage in reduced stress across a work style we can see that statement 4 in the Work Demand Factor is the only statement that shows a positive across specialty advantage to the team style group of subjects. (Each statement within the factors can be seen in Appendices VIII and IX. No other statement shows advantage to team subjects across the specialties. In the primary style groups there are six statements that are advantageous across the specialty at the 10% cut off. These are statements 1 and 6 in the Role Clarity and Ambiguity Factor, statement 7 in the Work Demand Factor, statements 4 and 6 in the Emotional Aspects of Care Factor, and statement 7 in the Work Control Factor. In addition to these six statements that show positive differences between the work methods, there are a further twelve statements in which all the primary style groups show positive
advantage over the team style groups, but one or more with a percentage advantage of less than 10%.

When the three primary style groups and three team style groups scores are averaged it can be seen (Table XII) that twelve statements favour the team style group, one favours neither group, and 51 favour the primary style group for the qualified staff. If the groups are compared using a 20% difference or more for each statement, it can be seen that no statement favours team style nursing and ten favour primary nursing. These statements and percentage differences are shown on Table XV.

The mean scores and standard error for the Student Groups is expressed in Fig IX. The percentage difference in stress scores for each of the students statements is expressed in Table XIV. This shows no consistent advantage for students in team style groups with any of the statements at the 10% cut off. Neither is there any cross group advantage to statements at any level. Within the primary style groups there is one statement with consistent advantage at 10% and above cut off, this is statement six in 'Role Clarity and Ambiguity Factor.'

There are also five other statements that show advantage across the primary nursing groups with one or more of the percentage difference being below the 10% cut off.

When the three primary style student scores and team style student scores are averaged we can see from Table XIV that five of the thirty six statements favour primary style nursing. Of the thirty six statements only one gives advantage of 20% or more; statement six in 'Role Clarity and Ambiguity Factor.' '(I would like to see a lot of changes on this ward)' is shown to the advantageous to the primary style students.

PERCEIVED STRESSORS

Of the sixty four qualified staff questionnaire, items forty were perceived stressors. A no stress response to a statement was given a score of one. A stress response was given a score of two. The questionnaire items identified as perceived stressors are listed below. A no stress score can be identified by referring
STAFF NURSE AND ENROLLED NURSES MEAN GROUP SCORES AND STANDARD ERROR (±2 S.E.)

- **Medical**
  - Primary Style
  - Team Style

- **Surgical**
  - Primary Style
  - Team Style

- **Elderly**
  - Primary Style
  - Team Style

Legend:
- Staff Nurse
- Enrolled Nurse
to the responses containing a tick (√) in Appendix IV. The responses were computed for specialty, e.g. surgery and work style.

<table>
<thead>
<tr>
<th>Statements numbers that were used as perceived stressors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 3, 4, 5, 6, 8, 9, 12, 13, 14, 15, 16, 17, 18, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 36, 38, 42, 43, 45, 46, 47, 48, 51, 52, 53, 54, 58, 60</td>
</tr>
</tbody>
</table>

The results were analysed using analysis of variance. The effect of nursing style was highly significant ($F=9.42; df=1,104; p=0.003$) showing that team nurses perceived significantly more stressors. The effect of ward was also highly significant ($F=5.63; df=2,103; p=0.0005$). Surgical ward staff perceived more stressors than elderly ward staff who, in turn, perceived more stressors than medical ward staff. Because of the unequal cell sizes, it was not possible to test for interaction. However, both styles of nursing showed the same trend across wards except for the primary/elderly combination which was slightly less stressful than the main effects would lead one to expect. The results for perceived stressors are shown in Fig. VII.

**TOTAL SYMPTOM SCORES**

Twenty one of the statements referred to symptoms associated with stress. These items were separated out to produce a symptom scale. The questionnaire items identified as 'symptom' statements are listed below. A no stress response was given a score of one. A stress response was given a score of two. A no stress score can be identified by referring to the responses containing a tick (√) in Appendix IV.

<table>
<thead>
<tr>
<th>Statement numbers that were used to produce the symptom scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 7, 10, 19, 21, 31, 34, 35, 37, 40, 41, 44, 49, 50, 55, 56, 59, 61, 62, 63, 64</td>
</tr>
</tbody>
</table>

The results were analysed using analysis of variance. The effect of nursing style was statistically significant ($F=5.78; df=1,104; p=0.018$). Primary nurses reported two fewer symptoms on
(Qualified staff) Perceived stressors mean stress scores and ± 2 SE

FIG VII

Perceived stress score

Medical

Surgical

Elderly

Primary
Combined
Team
(QUALIFIED STAFF) MEAN FREEDOM FROM STRESS SYMPTOMS SCORE (±2SE)

Note: A low score equates to MORE symptoms
### Table XIII

(QUALIFIED) PERCENTAGE DIFFERENCE (PRIMARY-TEAM) IN STRESS SCORES

<table>
<thead>
<tr>
<th>QUESTIONS FACTOR</th>
<th>NO.</th>
<th>MEDICAL</th>
<th>SURGICAL</th>
<th>ELDERLY</th>
<th>GROUP AVERAGE % DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLARITY AND AMBIGUITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLARITY AND AMBIGUITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLARITY AND AMBIGUITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLARITY AND AMBIGUITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLARITY AND AMBIGUITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Minus (-) sign shows percentage advantage to Team Style Group
A Plus (+) sign shows percentage advantage to Primary Style Group
Table XIII

(QUALIFIED CONT.) PERCENTAGE DIFFERENCE (PRIMARY-TEAM) IN STRESS SCORES

<table>
<thead>
<tr>
<th>QUESTIONS FACTOR</th>
<th>MEDICAL</th>
<th>SURGICAL</th>
<th>ELDERLY</th>
<th>GROUP AVERAGE % DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYMPTOMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OF STRESS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>+ 18</td>
<td>+ 9</td>
<td>- 7</td>
<td>+ 7</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>- 10</td>
<td>+ 20</td>
<td>+ 17.3</td>
</tr>
<tr>
<td>3</td>
<td>+ 38</td>
<td>+ 32</td>
<td>+ 32</td>
<td>+ 20</td>
</tr>
<tr>
<td>4</td>
<td>- 6</td>
<td>+ 39</td>
<td>- 22</td>
<td>+ 3.6</td>
</tr>
<tr>
<td>5</td>
<td>- 19</td>
<td>+ 15</td>
<td>+ 9</td>
<td>+ 1.6</td>
</tr>
<tr>
<td>6</td>
<td>- 5</td>
<td>+ 23</td>
<td>- 16</td>
<td>+ 0.6</td>
</tr>
<tr>
<td>7</td>
<td>+ 3</td>
<td>+ 7</td>
<td>+ 1</td>
<td>+ 3.6</td>
</tr>
<tr>
<td>8</td>
<td>+ 6</td>
<td>- 13</td>
<td>- 24</td>
<td>- 10.3</td>
</tr>
<tr>
<td>9</td>
<td>+ 14</td>
<td>- 3</td>
<td>+ 26</td>
<td>+ 12.3</td>
</tr>
<tr>
<td>10</td>
<td>+ 29</td>
<td>+ 18</td>
<td>- 14</td>
<td>+ 11</td>
</tr>
<tr>
<td>VII</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEATH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AND DYING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>+ 2</td>
<td>+ 32</td>
<td>+ 17</td>
<td>+ 17</td>
</tr>
<tr>
<td>2</td>
<td>+ 9</td>
<td>+ 9</td>
<td>+ 26</td>
<td>+ 14.6</td>
</tr>
<tr>
<td>3</td>
<td>- 13</td>
<td>+ 15</td>
<td>- 2</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>- 9</td>
<td>+ 17</td>
<td>- 9</td>
<td>- 0.3</td>
</tr>
<tr>
<td>5</td>
<td>- 13</td>
<td>+ 19</td>
<td>- 39</td>
<td>- 11</td>
</tr>
<tr>
<td>6</td>
<td>+ 8</td>
<td>+ 23</td>
<td>0</td>
<td>+ 10.3</td>
</tr>
<tr>
<td>VIII</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WORK CONTROL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIII</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>+ 9</td>
<td>+ 36</td>
<td>+ 9</td>
<td>+ 18</td>
</tr>
<tr>
<td>2</td>
<td>+ 9</td>
<td>- 11</td>
<td>+ 55</td>
<td>+ 17.3</td>
</tr>
<tr>
<td>3</td>
<td>+ 8</td>
<td>+ 28</td>
<td>- 2</td>
<td>+ 11.3</td>
</tr>
<tr>
<td>4</td>
<td>- 6</td>
<td>- 1</td>
<td>+ 26</td>
<td>+ 6.3</td>
</tr>
<tr>
<td>5</td>
<td>- 10</td>
<td>+ 19</td>
<td>+ 28</td>
<td>+ 12.3</td>
</tr>
<tr>
<td>6</td>
<td>- 52</td>
<td>+ 51</td>
<td>- 9</td>
<td>- 3.3</td>
</tr>
<tr>
<td>7</td>
<td>+ 14</td>
<td>+ 23</td>
<td>+ 17</td>
<td>+ 18</td>
</tr>
<tr>
<td>8</td>
<td>- 2</td>
<td>+ 12</td>
<td>+ 18</td>
<td>+ 9.3</td>
</tr>
</tbody>
</table>
Table XIV

(STUDENTS) PERCENTAGE DIFFERENCE (PRIMARY-TEAM) IN STRESS SCORES

<table>
<thead>
<tr>
<th>QUESTIONS FACTOR</th>
<th>NO.</th>
<th>MEDICAL</th>
<th>SURGICAL</th>
<th>ELDERLY</th>
<th>GROUP AVERAGE % DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLE</td>
<td>1</td>
<td>- 8</td>
<td>+ 19</td>
<td>+ 24</td>
<td>+ 11.6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>- 10</td>
<td>- 15</td>
<td>+ 44</td>
<td>+ 6.3</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>+ 5</td>
<td>0</td>
<td>+ 3</td>
<td>+ 2.6</td>
</tr>
<tr>
<td>CLARITY AND AMBIGUITY</td>
<td>4</td>
<td>+ 24</td>
<td>+ 16</td>
<td>- 9</td>
<td>+ 10.3</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>+ 4</td>
<td>0</td>
<td>+ 20</td>
<td>+ 8.0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>+ 15</td>
<td>+ 20</td>
<td>+ 40</td>
<td>+ 25.0</td>
</tr>
<tr>
<td>II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORGANISATIONAL CLIMATE</td>
<td>1</td>
<td>- 15</td>
<td>+ 5</td>
<td>+ 20</td>
<td>+ 3.3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>- 6</td>
<td>+ 5</td>
<td>+ 45</td>
<td>+ 14.6</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>- 18</td>
<td>- 6.0</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>+ 9</td>
<td>+ 21</td>
<td>+ 12</td>
<td>+ 14.0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>+ 24</td>
<td>- 1</td>
<td>+ 8</td>
<td>+ 10.3</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>- 2</td>
<td>+ 5</td>
<td>+ 25</td>
<td>+ 9.3</td>
</tr>
<tr>
<td>III</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WORK GROUP RELATIONSHIPS</td>
<td>1</td>
<td>- 3</td>
<td>+ 6</td>
<td>+ 5</td>
<td>+ 2.6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>- 18</td>
<td>- 1</td>
<td>+ 22</td>
<td>+ 1.0</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>- 1</td>
<td>+ 21</td>
<td>+ 30</td>
<td>+ 16.6</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0</td>
<td>+ 10</td>
<td>- 6</td>
<td>+ 6.0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0</td>
<td>- 12</td>
<td>+ 30</td>
<td>+ 6.0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>+ 9</td>
<td>+ 2</td>
<td>+ 30</td>
<td>+ 13.6</td>
</tr>
<tr>
<td>IV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WORK DEMANDS</td>
<td>1</td>
<td>+ 2</td>
<td>- 3</td>
<td>- 3</td>
<td>- 1.3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>- 8</td>
<td>+ 12</td>
<td>+ 42</td>
<td>+ 15.3</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>- 1</td>
<td>+ 21</td>
<td>+ 14</td>
<td>+ 11.3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>- 6</td>
<td>+ 10</td>
<td>+ 20</td>
<td>+ 8.0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>- 3</td>
<td>+ 15</td>
<td>- 10</td>
<td>+ 0.6</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>- 15</td>
<td>- 6</td>
<td>+ 45</td>
<td>+ 8.0</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMOTIONAL ASPECTS OF PATIENT CARE</td>
<td>1</td>
<td>0</td>
<td>- 19</td>
<td>+ 9</td>
<td>- 3.3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>+ 10</td>
<td>+ 4</td>
<td>+ 5</td>
<td>+ 6.3</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>- 1</td>
<td>+ 4</td>
<td>+ 5</td>
<td>+ 11.0</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>- 46</td>
<td>- 1</td>
<td>+ 45</td>
<td>- 0.6</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>- 1</td>
<td>+ 7</td>
<td>+ 17</td>
<td>+ 7.6</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>+ 24</td>
<td>+ 12</td>
<td>- 5</td>
<td>+ 10.3</td>
</tr>
<tr>
<td>VI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMOTIONAL REACTION</td>
<td>1</td>
<td>- 16</td>
<td>0</td>
<td>+ 49</td>
<td>+ 11.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>- 20</td>
<td>- 12</td>
<td>+ 27</td>
<td>- 1.6</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>+ 10</td>
<td>+ 9</td>
<td>+ 6.3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>+ 27</td>
<td>+ 8</td>
<td>+ 9</td>
<td>+ 14.6</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>- 1</td>
<td>+ 22</td>
<td>- 3</td>
<td>+ 6.0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>+ 7</td>
<td>+ 4</td>
<td>+ 20</td>
<td>+ 10.3</td>
</tr>
</tbody>
</table>

A Minus (-) sign shows percentage advantage to Team Style Group
A Plus (+) sign shows percentage advantage to Primary Style Group
average than the team nurses. The effect of ward type was even more significant (F=7.08; df=2,103; p=0.0001). Surgical ward staff reported three more symptoms on average than either the medical or geriatric staff who reported approximately the same number of symptoms. Because of the unequal cell sizes it was not possible to test for an interaction but we may note that both styles of nursing showed the same symptom pattern across wards. The results for symptoms of stress are expressed in Fig VIII. There is a statistically significant correlation of perceived stress and symptoms at better than the 0.1% level (r=0.596).

On looking at each Factor the following is observed:-

ROLE CLARITY AND AMBIGUITY FACTOR (I)

Primary nursing is characterised by improved clarity for all the different work settings, both qualified staff and students benefit (Figs. X and XI). Five of the eight statements show that qualified staff in the primary groups have less stress, with two of the five statements showing more than 10% difference in the three work areas. Only one of the six statements gave a 10% difference across the work areas for the student groups. This favoured primary nursing. The group mean stress scores are:-

<table>
<thead>
<tr>
<th></th>
<th>Qualified Primary Style</th>
<th>Student Primary Style</th>
<th>Team Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROLE CLARITY &amp; AMBIGUITY FACTOR (I)</td>
<td>2.81</td>
<td>1.38</td>
<td>4.32</td>
</tr>
</tbody>
</table>

ORGANISATIONAL CLIMATE FACTOR (II)

Primary nurses report a less stressful organisational climate across the different work settings (Fig.XII). Among the qualified groups three statements (Table XIII Factor II Nos. 4, 6 and 7) show a positive benefit to the primary nursing group, but all show less than 10% benefit. The Student Groups (Fig.XIII) show one statement that (Table XIV Factor II No. 4) favours the primary style groups consistently with one of the group showing less than 10% benefit. The mean stress scores across the groups are:-

<table>
<thead>
<tr>
<th></th>
<th>Qualified Primary Style</th>
<th>Student Primary Style</th>
<th>Team Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORGANISATIONAL CLIMATE FACTOR (II)</td>
<td>2.88</td>
<td>1.48</td>
<td>3.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.99</td>
</tr>
</tbody>
</table>
STUDENTS STRESS AT WORK: MEAN SCORES AND STANDARD ERROR (-2 S.E.)

ME  D  I  C  A  L
Primary Style  N = 12
Team Style  N = 20

S  U  R  G  I  C  A  L
Primary Style  N = 16
Team Style  N = 18

E  L  D  E  R  L  Y
Primary Style  N = 6
Team Style  N = 20
### Table XV
STATEMENTS THAT SHOWED GREATEST DIFFERENCES BETWEEN 'PRIMARY' AND 'TEAM' GROUPS (QUALIFIED)

<table>
<thead>
<tr>
<th>NO.</th>
<th>FACTORS AND STATEMENTS</th>
<th>TEAM</th>
<th>PRIMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>FACTOR I (ROLE CLARITY AND AMBIGUITY)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I am unable to do my best work because of work pressures.</td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>3</td>
<td>I feel quite content about my future in nursing.</td>
<td></td>
<td>31.3%</td>
</tr>
<tr>
<td>5</td>
<td>The Nursing Auxiliary has as much influence on care as I do.</td>
<td></td>
<td>28.6%</td>
</tr>
<tr>
<td></td>
<td><strong>FACTOR II (ORGANISATIONAL CLIMATE)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>There are no hard and fast rules to our ward routine.</td>
<td></td>
<td>29.3%</td>
</tr>
<tr>
<td></td>
<td><strong>FACTOR III (WORK GROUP RELATIONSHIPS)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None at 20% or more</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FACTOR IV (WORK DEMANDS)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Our patients are encouraged to have a say in how things are done.</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>4</td>
<td>Meeting people's physical needs is not easy.</td>
<td></td>
<td>28%</td>
</tr>
<tr>
<td>7</td>
<td>I make all the important decisions in the patients' nursing care.</td>
<td></td>
<td>20.6%</td>
</tr>
<tr>
<td></td>
<td><strong>FACTOR V (EMOTIONAL ASPECTS OF PATIENT CARE)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I prefer to keep my emotional involvement with patients at arms length</td>
<td></td>
<td>21.6%</td>
</tr>
<tr>
<td>6</td>
<td>I find dealing with relatives very difficult.</td>
<td></td>
<td>25.3%</td>
</tr>
<tr>
<td></td>
<td><strong>FACTOR VI (EMOTIONAL REACTION)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>After a day's work I have no trouble in sleeping.</td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td><strong>FACTOR VII (DEATH AND DYING)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None at 20% or more</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FACTOR VIII (WORK CONTROL)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None at 20% or more</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The percentage figure shown is the difference in response between the two groups to the statement and represents the lower stress score for that group. The statements included are those which show a 20% or more difference between the two groups. The NO. column relates to the 'Factor' Statements, Appendix VIII (P.200).
Factor I

STRESS ASSOCIATED WITH ROLE CLARITY AND AMBIGUITY: QUALIFIED NURSES MEAN STRESS SCORES

- Primary style
- Team style

Legend:

- N=47
- N=59
- Med. primary N=18
- Med. team N=20
- Surg. primary N=18
- Surg. team N=20
- Eld. primary N=11
- Eld. team N=19
Factor I

STRESS ASSOCIATED WITH ROLE CLARITY AND AMBIGUITY: STUDENTS MEAN STRESS SCORE

- Primary style
- Team style

<table>
<thead>
<tr>
<th>Role</th>
<th>Primary</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med. primary</td>
<td>N=12</td>
<td>N=20</td>
</tr>
<tr>
<td>Surg. primary</td>
<td>N=16</td>
<td>N=17</td>
</tr>
<tr>
<td>Eld. primary</td>
<td>N=6</td>
<td>N=20</td>
</tr>
</tbody>
</table>

Fig XI
STRESS ASSOCIATED WITH ORGANISATIONAL CLIMATE: QUALIFIED NURSES MEAN STRESS SCORES

- **Primary style**
- **Team style**

**Fig. XII**

- **N=47**
- **N=59**
- **Med. primary N=18**
- **Med. team N=20**
- **Surg. primary N=18**
- **Surg. team N=20**
- **Eld. primary N=11**
- **Eld. team N=19**
Factor II

STRESS ASSOCIATED WITH ORGANISATIONAL CLIMATE: STUDENTS MEAN STRESS SCORES

- Primary style
- Team style

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med. primary</td>
<td>12</td>
</tr>
<tr>
<td>Med. team</td>
<td>20</td>
</tr>
<tr>
<td>Surg. primary</td>
<td>16</td>
</tr>
<tr>
<td>Surg. team</td>
<td>17</td>
</tr>
<tr>
<td>Eld. primary</td>
<td>6</td>
</tr>
<tr>
<td>Eld. team</td>
<td>20</td>
</tr>
</tbody>
</table>

Fig. XIII
Factor III

STRESS ASSOCIATED WITH WORK GROUP RELATIONSHIPS: QUALIFIED NURSES MEAN STRESS SCORES

- Primary style
- Team style

Fig. XIV
Factor III

STRESS ASSOCIATED WITH WORK GROUP RELATIONSHIPS: STUDENTS MEAN STRESS SCORE

- Primary style
- Team style

<table>
<thead>
<tr>
<th></th>
<th>Primary</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med. Primary</td>
<td>N=12</td>
<td>N=20</td>
</tr>
<tr>
<td>Surg. Primary</td>
<td>N=16</td>
<td>N=17</td>
</tr>
<tr>
<td>Eld. Primary</td>
<td>N=6</td>
<td>N=20</td>
</tr>
</tbody>
</table>
STRESS ASSOCIATED WITH WORK DEMANDS: QUALIFIED NURSES MEAN STRESS SCORES

- Primary style
- Team style

<table>
<thead>
<tr>
<th>Group</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med. primary</td>
<td>N=18</td>
</tr>
<tr>
<td>Med. team</td>
<td>N=20</td>
</tr>
<tr>
<td>Surg. primary</td>
<td>N=18</td>
</tr>
<tr>
<td>Surg. team</td>
<td>N=20</td>
</tr>
<tr>
<td>Eld. primary</td>
<td>N=11</td>
</tr>
<tr>
<td>Eld. team</td>
<td>N=19</td>
</tr>
</tbody>
</table>

Fig XVI
Factor IV

STRESS ASSOCIATED WITH WORK DEMANDS: STUDENTS MEAN STRESS SCORE

Fig. XVII

- Primary style
- Team style
WORK GROUP RELATIONSHIPS FACTOR (III)

Work group relationships were unaffected by the work style. The qualified staff and students in the Surgical and Elderly primary style groups have lower stress scores from work group relationships than their colleagues working team style, but the qualified staff and students working Medical team style have lower stress scores than their colleagues working primary style (Figs. XIV and XV).

Of the eight statements that pertain to work group relationships among qualified staff, none show any consistent advantage across the work groups in favour of either style of work. The mean stress scores across the groups are:

<table>
<thead>
<tr>
<th></th>
<th>Qualified Primary Style</th>
<th>Student Primary Style</th>
<th>Team Style</th>
<th>Teacher Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress Score</td>
<td>2.48</td>
<td>0.9</td>
<td>2.72</td>
<td>1.34</td>
</tr>
</tbody>
</table>

WORK DEMANDS FACTOR (IV)

Primary nurses reported less stress from the demands of work. The mean stress scores in the qualified primary style groups are all lower than their colleagues working team style (Fig. XVI). The surgical and elderly student groups, primary style, have a lower stress score than their colleagues working team style. However, the Medical team style group of students have a lower stress score than the primary style Medical group (Fig. XVII).

Of the eight statements in the qualified nurse questionnaire, three statements (Table XIV, Factor IV, Nos. 1, 2 and 7) favoured primary style nursing across the groups with one of these (No. 7) benefitting at 10% or more. One statement (No. 4) was beneficial to the qualified team style staff across the groups and beneficial across the 10% cut off through all three specialties. There were no benefits to either work style among the student groups. The mean stress scores across the group are:

<table>
<thead>
<tr>
<th></th>
<th>Qualified primary style</th>
<th>Students Primary Style</th>
<th>Team Style</th>
<th>Teacher Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress Score</td>
<td>2.96</td>
<td>1.67</td>
<td>3.35</td>
<td>-1.91</td>
</tr>
</tbody>
</table>

EMOTIONAL ASPECTS OF PATIENT CARE FACTOR (V)

The surgical and elderly primary groups have lower stress scores
for both qualified and students than the comparable groups working team style. The qualified staff and students working medical team style have lower stress scores than their colleagues working primary style (Figs XVII and XIX). Of the eight statements relating to emotional aspects of patients' care two (Table XIII, Factor V Nos. 4 and 6) were beneficial for qualified staff across the groups to the nurses working primary style, both questions showing consistently more than 10%. For the student groups one of the statements (Table XIV, Factor V No. 2) showed benefits across the groups in favour of primary style but two of the groups benefit being less than 10%. The mean score across the groups are:-

<table>
<thead>
<tr>
<th></th>
<th>Qualified primary style</th>
<th>Team Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYMPTOMS OF STRESS FACTOR (VI)</td>
<td>2.27</td>
<td>2.89</td>
</tr>
<tr>
<td></td>
<td>Student Primary Style</td>
<td>1.53</td>
</tr>
<tr>
<td></td>
<td>Team Style</td>
<td>1.77</td>
</tr>
</tbody>
</table>

Medical and surgical 'primary' qualified staff had lower stress scores than those comparable staff working team style. The qualified staff working elderly team style had a lower mean score than their colleagues working primary style (Fig. XX). The students working surgical and elderly primary style had lower stress scores than their colleagues working team style. The students working medical team style had a lower mean stress score than students working medical primary style (Fig. XXI). Only one of the statements (Table XIII, Factor VI No. 7) showed benefit to the qualified primary style groups across specialties with all three groups having less than 10% difference. There were no consistent benefits across groups in favour of the qualified team style of working. The primary style work showed benefits to students across the groups for two of the six statements (Table XIV, Factor VI No. 4 and 6) but for both only one group had 10% or more difference. There were no across group benefits to the team style of working. The mean stress scores across groups are:-

<table>
<thead>
<tr>
<th></th>
<th>Qualified Primary Style</th>
<th>Team Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEATH AND DYING FACTOR (VII)</td>
<td>4.23</td>
<td>4.85</td>
</tr>
<tr>
<td></td>
<td>Student Primary Style</td>
<td>1.73</td>
</tr>
<tr>
<td></td>
<td>Team Style</td>
<td>2.2</td>
</tr>
</tbody>
</table>

The medical and elderly team style groups qualified staff had
a lower mean stress score to death and dying than the comparable groups working primary style. The surgical primary style group had a lower mean score than the comparable surgical team style group (Fig. XXII). Students did not have any statements related to death and dying. Of the ten statements in the questionnaire related to death and dying two (Table XIII, Factor VII No. 1 and 2) showed benefit across the primary style group but none of the differences achieved 10%. There were no consistent benefits for the team style group.

The mean stress scores across the groups are:

Qualified Primary Style  2.44 : Team Style  2.59

WORK CONTROL FACTOR (VIII)

The surgical and elderly primary style groups qualified staff had lower work control stress scores than their comparable groups working team style. The qualified staff working medical team style had lower work control stress scores than those qualified staff working primary style (Fig. XXII). Students did not have any statements related to work control. Of the eight statements, two (Table XIII, Factor VIII Nos. 1 and 7) were beneficial across the primary nurse groups one of which (No. 7) showed benefits above 10% for the three work groups, the second having two groups with less than 10% difference. There were no across the work group benefits for the team style method.

The mean stress scores across the groups are:

Qualified Primary Style  3.12 : Team Style  4.05

THE HYPOTHESIS

There were two general hypothesis at the beginning of this chapter. The first hypothesis expected team nurses to have less stress from the work itself due to their group support and shared responsibility for patient care. The hypothesis was not supported. The trend in the study showed primary nurses were coping better with work group relationships, work demands, emotional aspects of care and death and dying. Primary nurses also experienced fewer symptoms of stress than staff working through team nursing.
Factor V

STRESS ASSOCIATED WITH EMOTIONAL ASPECTS OF PATIENT CARE: QUALIFIED NURSES MEAN STRESS SCORE

- Primary style
- Team style

STRESS ASSOCIATED WITH EMOTIONAL ASPECTS OF PATIENT CARE: STUDENTS MEAN STRESS SCORES

- Primary style
- Team style

<table>
<thead>
<tr>
<th>Department</th>
<th>Primary Style</th>
<th>Team Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med.</td>
<td>N=12</td>
<td>N=20</td>
</tr>
<tr>
<td>Surg.</td>
<td>N=16</td>
<td>N=17</td>
</tr>
<tr>
<td>Eld.</td>
<td>N=6</td>
<td>N=20</td>
</tr>
</tbody>
</table>

Fig.XIX
SYMPTOMS OF STRESS: QUALIFIED NURSES MEAN STRESS SCORES

- Primary style
- Team style

<table>
<thead>
<tr>
<th>Group</th>
<th>Primary</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med. primary</td>
<td>N=18</td>
<td>N=20</td>
</tr>
<tr>
<td>Surg. primary</td>
<td>N=18</td>
<td>N=20</td>
</tr>
<tr>
<td>Eld. primary</td>
<td>N=11</td>
<td>N=19</td>
</tr>
<tr>
<td>N=47</td>
<td>N=59</td>
<td></td>
</tr>
</tbody>
</table>
Factor VI

SYMPTOMS OF STRESS: STUDENTS MEAN STRESS SCORES

N=12
N=20
N=16
N=17
N=6
N=20

Primary style
Team style
Factor VII
Stress associated with death and dying: Qualified nurses mean stress scores

![Bar chart showing stress levels for different groups](image-url)

- Primary style
- Team style

<table>
<thead>
<tr>
<th>Group</th>
<th>Primary</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Primary</td>
<td>N=34</td>
<td>N=57</td>
</tr>
<tr>
<td>Medical Team</td>
<td>N=12</td>
<td>N=20</td>
</tr>
<tr>
<td>Surgical Primary</td>
<td>N=16</td>
<td>N=17</td>
</tr>
<tr>
<td>Surgical Team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elderly Primary</td>
<td>N=6</td>
<td>N=20</td>
</tr>
<tr>
<td>Elderly Team</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Factor VIII

Stress associated with lack of work control: Qualified nurses mean stress scores

- Primary style
- Team style

N=47  N=59

Fig. XXIII
The second general hypothesis expected primary nurses to have less stress from organisation factors because of their clearer role and greater control of the work situation. The evidence supporting this hypothesis was consistent giving credence to the hypothesis. The primary nurses in this study had greater role clarity, more work control, a better organisational climate and coped better with work demands.

Opinions as to why primary nurses should be less stressed from patient contact despite their greater involvement, and why organisational factors are less distressing to them is offered in the discussion.

DISCUSSION

ROLE CLARITY AND AMBIGUITY FACTOR (I)

Qualified nurses, whether newly qualified, practising, or preparing for return to practice, feel inadequately educated and trained for the rigours of their work (Moores et al 1982, Lathlean 1987, McGrath et al 1989, Bowman et al 1990). There are a variety of views as to what the nurses role is or should be. This study shows that the primary nursing groups had greater clarity and less ambiguity of role.

Primary nurses felt less pressured by the work. Responses to the statement, 'I am unable to do my best work because of work pressure' showed 63% of the team groups agreed with the statement. In comparison 42% of the primary group agreed. Gray-Toft and Anderson (1985) concluded from their study that the cause and effect of nurses stress created conflict of role and ambiguity. This was due to factors in the nurses role perception and organisational variables which influence stress felt when providing nursing care. Primary nursing seems to ameliorate some of this effect.

One problem for nursing is how to retain staff. The statement, 'I feel quite content about my future in nursing' showed differences between the groups. 47% of primary nurses agreed with this, while only 19% of nurses in the team groups agreed. Whether this difference would have any effect on nurse retention as a
whole is difficult to know. Redfern (1980) found no difference between the stayers and leavers on intrinsic satisfaction or role ambiguity. With a clear difference of response to this statement it would be reasonable to assume that there might be significant numbers of primary nurses who are more likely to remain in their present posts longer than those nurses working a team nursing style.

More trust was also shown by the primary nursing group members. To the statement, 'the people I work with are open and honest with you' elicited a 91% agreement among the primary nurses with 69% of the team nurses agreeing. Strategies such as establishing goals, planning, co-ordinating and evaluating will help to improve job satisfaction, absenteeism and alleviate the role conflict experienced by staff according to Gray-Toft and Anderson. When they changed management practices they found a more open and supportive work group which reduced ambiguity further. The greater autonomy necessary for primary nursing, accompanied by a more open and trusting culture seem to be emerging among the primary group respondents of this study.

Do unqualified staff have as much influence on care as the qualified nurse? To the statement, 'the nursing auxiliary has as much influence on care as I do,' 15% of primary nurses agreed; 42% of the team nurses agreed they did. In their study Peräla and Hentinen (1989) found that qualified nurses working primary nursing knew their patients better, were more careful and individual in care; the nursing was also considered to be more interesting and diverse. They also reported that planning and goal setting were seen as negative activities by the staff involved. This is at odds with Gray-Toft and Anderson's (1985) view that goal setting reduces ambiguity. This study would seem to support the view that planning and goal setting is beneficial for the qualified nurse in reducing ambiguity, making the qualified nurse feel in control of care standards and feeling less threatened by unqualified staff.

Similarly, there were differences between the groups in the way they felt about work content. To the statement, 'there is no doubt I am in control of patient care,' 59% of primary nurses
agreed with 49% of team nurses agreeing. Firth et al. (1987) found that nurses who had ambiguity about supervisors expectations had increased stress. Through personal control of their work primary nurses feel more at ease with care.

Both groups had a high number of staff agreeing with the statement, 'nurse training does not equip you adequately for the responsibilities of nursing.' Of the primary nurses 68% agreed, with 79% of team nurses agreeing. Lack of clarity and role ambiguity may influence how people at work feel about themselves generally. Greater clarity and reduced ambiguity is seen to encourage the primary nurses to feel more confident about their skills and training. Clearly nurses are not impressed with the way they are prepared for their role.

To the statement, 'I would like to see a lot of changes on this ward' 25% of the primary nurses agreed with 37% of team nurses agreeing. Khan et al. (1964) were early proponents of the view that role ambiguity leads to tension and dissatisfaction at work. It is probable that the reduced desire for changes among the primary nurses reflects greater satisfaction with their work situation.

The student groups reflected the stress felt by qualified staff. Students in primary nursing wards have less stress from clarity and ambiguity issues. The statement, 'I am unable to do my best work because of work pressures' found 26% in agreement among the primary group and 36% in agreement among the team group. To the statement, 'The nursing auxiliary has as much influence on care as I do' found agreement among 56% of primary group and 71% among the team group. A similar pattern is expressed to the statement, 'I would like to see a lot of changes on this ward' with 9% of students experiencing primary nursing agreeing, and 31% of students in team style nursing agreeing. Fretwell (1980) found that students ranked highest those wards with more flexible routines and were more involved in teaching. In this study students experiencing primary style nursing were clearly less stressed from role clarity and ambiguity factors.
More traditional approaches to care tend to rank jobs according to seniority and assumed competency. Within primary nursing this is not so, the contextual situation from which work emanates is the patient not the organisation. Such a direct concept of work orientation probably gives unity and clarity of purpose for nurses working a primary nursing system.

ORGANISATIONAL CLIMATE FACTOR (II)

How individuals interpret their work experiences depends a great deal on the organisations atmosphere or climate. This atmosphere will have a direct effect on satisfaction, absenteeism and staff turnover with any resultant costs (Lawler 1983).

One difference in this section was the response to the statement, 'There are too many seniors in this job.' 42% of primary nurses agreed in comparison to 56% of the team nurses. It is not possible to know whether this was a response to the immediate ward structures or the whole organisational structure. Likert (1967) sees the organisational climate as an intervening variable between activities such as leadership.

Bowman (1989) has shown leadership to be more operationally democratic in primary nursing groups. This study shows that primary nurses are less concerned or threatened by their seniors than are the team nurses.

Because primary nurses feel better supported, they also feel less threatened at work. To the statement, 'I find people here very supportive' 83% of primary nurses agreed, 66% of team nurses agreed. Changes in work arrangements have been shown by Milne (1986) to encourage staff to feel more positive about a wards atmosphere. The greater support felt by the primary nurses is necessary if they are to have the confidence and trust to operate an individual care system.

The reduced threat that accompanies primary nursing organisation has its benefits for management. The statement, 'There are seldom changes from management that affect me' elicited a 34% agreement from the primary nurses and a 22% agreement from team nurses. Although intensive care units are not the most
stressful places to work (Wakefield et al. 1988). Vincent and Billing (1988) comparing two groups of intensive care nurses found the more stressed group ranked management as the greatest stressor. For any organisation to be progressive and vital, positive attitudes towards management are essential. The primary nurses in this study felt less 'affected' by management than did the team group. Primary nurses also felt they had more of an identity than their team nursing colleagues. To the statement 'I feel like a faceless number in this hospital', 30% of primary nurses agreed and 44% of team nurses agreed. The view by Mansfield et al. (1989) that nurses may be either humanist or technical by nature is probably an irrelevance to satisfaction at work. The important variable is more likely to be a sense of belonging in a human service. Edwards and Cooper (1988) suggest organisations that are distant and communicate badly encourage individuals to construct their own ideas of the organisation's intentions. The more negative perception of themselves in the team nursing group suggests a feeling of distance from the organisation they work for.

Responsibility and authority are meant to be clarified by practicing through primary nursing. The statement, 'I have responsibility for care but no authority' had agreement from 34% of primary nurses and 49% agreement from team nurses. Some improvement of matching authority and responsibility does seem to be occurring among the primary nurses.

Ward routines are meant to be more flexible with individualized care methods. To the statement, 'There are no hard and fast rules to our ward routine' 83% of primary nurses and 56% of team nurses agreed. There is a need for nurses to have fewer controls in their work and a need for nurses to express themselves through their work. In nursing this is clearly best facilitated by primary nursing where routines are being eroded.

The student response to the organisation climate shows the same trend as qualified staff. Those working through primary nursing having less stress. Of the primary students 9% felt that no one ever told them how they were doing, while 22% of the team style students felt this. Also responsibility
and authority for the primary students was better balanced. 64% of them feeling they had responsibility but no authority, with 83% of the team nurses feeling this. The student group of primary nurses also saw the qualified staff they were working with as being more detailed in understanding the patients problems with 94% believing this. 84% of the team group also held this view. Parkes (1980) believed that the differences she found in wards could be contributed to the social climate. From this study it would seem that primary nursing practices appear to improve the organisational climate factor.

**WORK GROUP RELATIONSHIPS FACTOR (III)**

Work group relationships in human services are crucial to the organisation's effectiveness. Trust and confidence can only flourish in an open climate where problems can be confronted without rancour. There was little difference between primary nurses and team nurses to the statements in this section. Stress from relationships varies between 75% and 15% of all stress depending on the study method (Bargagliotti and Trygstad 1987). In this study relationships with senior nurses, medical staff and relatives were unaffected by the style of nursing adopted. These relationships have been recognized as causing stress and burnout in nurses (Ivancevich and Matteson 1980, Duxbury et.al.1984, Price 1984, Dewe 1988, Vincent and Billings 1988).

The groups however were different in two important areas of work relationships. Feeling valued as a member of a team is dependent on whether individuals can express their own opinions without feeling awkward, disloyal or guilty. To the statement, 'It is better to keep your opinion to yourself in this job' 15% in the primary group, and 32% of the team group agreed with the statement. Nurses tend to have more stress from conflicts with co-workers than other health professionals (Wolfgang 1988). Some authors believe that the type of nursing specialty influences relationships (Power and Sharpe 1988, Phipps 1988). Another view is that fear of negative evaluation encourages nurses to become more tolerant of colleagues (Motowidlo et.al. 1986). From this study it can be seen that the primary nursing group is developing a more open style of relationship.
this is essential for those who have to operate a system that has clear responsibility and accountability.

The primary group of nurses also felt more support from their colleagues than did the team group of nurses. To the statement, 'My nurse colleagues are not very supportive' only 2% of the primary group agreed, while 15% of the team groups agreed. Hare et al. (1988) study found work relationships accounted for 45% of emotional exhaustion. La Rocco et al. (1980) findings uphold the view that social support buffered the effects of physical and mental health variables (physical symptoms, anxiety, depression, irritability). Other researchers have also come to the conclusion that social support is ameliorative as regards stress (Levi et al. 1982, Gray-Toft and Anderson 1985, Horowitz et al. 1988, Cummings 1988, Stewart 1989). Bolle (1988) gives five organisational factors which help nurses cope with close relationships:

1. Appropriate education in nature of illness/disability of patients cared for
2. Nurses being able to explore their feelings among their peers
3. Peer support in atmosphere of comradeship
4. Available spiritual support
5. Supervisory support that is aware of the individual's problems

Individuals who have an internal locus of control utilise support as a means of coping with stress according to Cummings (1988). It may be that the differences seen between these two groups is due to some self selection. Nurses who choose primary nursing may do so because of personality type.

Only one statement showed a difference between the student groups. The statement, 'It is better to keep your opinion to yourself on this ward' was agreed with by 9% of those working in primary style nursing wards. A larger 24% of students working in team wards agreed with the statement. Thus it can be seen that the openness developing in primary nursing areas has an impact on student nurses.

The beneficial trend that favours primary nursing in this study may be due in part to greater self sufficiency (Constable and Russell 1986), or the achievement by individuals of desirable organisational outcomes (La Rocco and Jones 1978). It may be that facing up to problems because individuals are aware that they are responsible
and accountable is less emotionally demanding than seeing a patient with real problems and not feeling you have the authority or responsibility to address the problem(s). Further, accountability and responsibility invested in individuals may create group cohesiveness and mutual support.

WORK DEMANDS FACTOR (IV)

Over the past two decades attempts have been made to measure nurses workloads. Usually this is attempted by categorising patients in accordance with their nursing dependency; this dependency can then be allocated nursing time. These measures are relatively crude and real solutions that cope with nurses work load variability are no nearer. The work load as a major stressor is mentioned in virtually all the literature on nurses stress.

In this study primary nurses suffered less stress from work demands than their team colleagues. Of the eight work demand factors in the questionnaire, four showed percentage difference of 10% or more between the primary and team groups.

The pace of work was felt by the team groups to be more of a problem to them than it was to the primary group. To the statement, 'the pace of work here is just about right' 37% of the team group agreed and 47% of the primary group. It is not only the work demand which causes stress at work, other factors, for example, the pace of work and rapid change such as emergencies, patients with unstable conditions, time factors and colleagues not pulling their weight (Phipps 1988, Dewe 1989) are influential. Other factors associated with this stress are poor supervisory support and lack of work variety (Constable et al. 1986). It may be that greater control of their own work enables primary nurses to cope better with the work pace.

Similarly primary nurses felt more able at meeting patients physical needs. To the statement, 'Meeting peoples physical needs is not easy' elicited a 51% agreement among the primary group and 80% agreement by the team group. Meeting patients physical needs is central in the nursing areas studies; Parasuraman and Alutto (1981) see common work functions as having a strong influence on the magnitude of stressors. Further Hare et al. (1988) suggest that poor opportunity for quality work enhances stress for staff.
Finian et al. (1988) describe work load and time management as a balancing act for nurses; workload factors they believe encourage people to leave nursing. The great difference between the groups to this statement indicates a more positive perception of work load among the primary nurse group.

Both groups felt that they encouraged patients to have a say about their care but the primary group more so. To the statement 'Our patients are encouraged to have a say in how things are done', there was 69% agreement among the team group and 94% agreement among the primary group. Nurses experience more stress from patients than other health professionals (Wolfgang 1988). Other factors influential in negative patient nurse interaction/co-operation include unrealistic goal setting (Landeweerd and Boumans 1988), 'hassles' from interactive processes (Bargagliotti and Trygstad 1987), poor operational feedback (Das 1986) and lack of involvement in decision making (Hernandez et al. 1988). Clearly primary nurses are more confident in asserting their desire to individualise care with the patients consent.

Similarly primary nurses feel more involved with patient care decision making. The statement, 'I make all the important decisions in the patients care' elicited a 24% agreement from the team group and a 42% agreement from the primary group. An open ward atmosphere with supportive relationships would encourage staff to feel more confident with their prescribed work. Some evidence for this comes from Firth et al. (1985). One of their conclusions was that staff who had hostility driven inwards had a tendency to avoid problem solving and decision making. The greater involvement is reflected in Perūla and Hentinen's (1989) study where primary nurses had less frustration from their work with an 'enlivened' atmosphere in the primary nursing wards. Nurses from this study who belonged to the primary style groups had more autonomy and as a result appear to value themselves more and assert their worth.

Students stress from work demands had the same pattern as the qualified nurses. Of the six statements on work demands in the students questionnaire, two showed a difference of 10% or more. The statement, 'The patients on this ward are encouraged to have a say in how
things are done' had agreement from 48% of the team group, while 62% of the primary group agreed. Similarly, the statement, 'Care is always carried out promptly and efficiently on this ward' elicited a 76% agreement from the team group and 88% from the primary group.

Linder-Pelz et al. (1986) showed that overload was a significant stress for student nurses; Zryewskyj and Davis (1987) reported that 66% of the students stress emanated from inability to cope with workload. This study shows that students experiencing primary style nursing perceive patients to be more involved with their care and the care is more likely to be carried out promptly and efficiently.

The demands from nurses work is such that it is not unusual for nurses to work more than their prescribed time and still feel that they are leaving the work incomplete. Repetitive work patterns, time pressures, narrow job content with no demand for creative problem solving, are some areas of work Levi et al. (1982) describe as quantitative overload and qualitative underload; the traditional patterns of nurses work organisation makes nurses prone to these stresses. From the differences in this study, it is clear that the quantitative and qualitative components of nurses work improve with the introduction of primary nursing.

EMOTIONAL ASPECTS OF CARE FACTOR (V)

Nurses are unique in the way they interact with dependent sick and disabled people, many of whom are distressed, experience pain and may be facing death. According to Motowidlo et al. (1986) the most important decision in a nurses performance is how she achieves a relationship based on empathy and psychological support. The inclusion of subjects for this study was based on how a companionship attachment is facilitated on a ward between qualified nurses and patients. Thus the primary nurses had closer, more involved relationships with their patients. Despite this the primary nurses had less stress from emotional factors associated with their work.

Of the eight statements all but one had higher stress scores for team nursing. Only two of the statements had the percentage difference of 10% or more.

Primary nurses were more willing to become emotionally involved.
with patients. The statement 'I prefer to keep my emotional involvement with patients at arms length' evoked a 68% agreement among the team group and a 47% agreement from the primary group. Nurses generally have greater emotional distress from their work than other health care personnel (Wolfgang 1988); this distress comes from many sources. Nurses under-report their negative feelings about incontinence (Yu and Kaltreider 1988), yet this causes emotional dissonance in them (Willington 1976). Similarly unco-operative patients (Motowidlo et. al. 1986), personal involvement with patients (Munley 1985), unanticipated changes in patients health (Dewe 1989), moral aspects of the nurses work (Cameron 1986, Wilkinson 1988) and even technology (Fitter 1987) are some of the areas in a nurses work that cause them distress. It is possible that the lack of emotional expression common to traditional nursing systems (Parkes 1986) discourages nurses from wanting to get close to patients; or the better social support experienced by the primary nursing group may give greater confidence to involve themselves more with patients. This sample of primary group subjects were less likely to try and keep the patient at arms length.

Relatives of patients were also less of a problem to the primary nurse group. The statement, 'I find dealing with relatives very difficult' produced a 29% agreement among the team group and a 4% agreement from the primary group. Relatives have not to date been considered as a source of stress for nurses. It is clear that the relationship between the nurse and relative is a sensitive one. Often relatives can feel anger at the nurse. This anger emanates from the nurses intimate contact with the patient and the relatives guilt at not being able to help (Menzies 1960). Primary nursing encourages relatives involvement; these theories recognize the patient as a social being who has to retain contact with the external world. From the response of primary nurse subjects it would seem that they feel less intimidated by the presence of patients relatives than the team nurses.

The primary group of students had a lower overall stress score from emotional factors. Two statements produced differences between the groups. The statement 'I prefer to keep my emotional involvement with patients at arms length' produced a 46% agreement from the team group and 35% agreement from the primary group. Agreement to the statement, 'When patients do not try to help themselves it makes me angry' elicited a 41% response from the team group and 53% from the primary group. Manderino et. al. (1988) asserts
that students are exposed to the same stress in practice as qualified nurses. Lazarus (1985) gives examples of group psychological characteristics that are shared when under stress. Haack (1988) believes that students are not ready for failure in their work; Haack (1987) also believes the training programme lacks reality for student nurses. It does seem that the students perceptions of the emotional factors in their work is similar to the qualified staff with whom they work.

The overall psychological properties seem to be set by the work group; some stress researchers believe that this is more important to stress than environmental factors (Cohen 1985, Vingerhoets and Marcelissen 1988). Holmes (1987) suggests that primary nurses 'often suffer from fear, guilt and a sense of being overwhelmed by events and rejected by those for whom they most care' (p 62). This study does not support that view. The primary nurse group in this study were less troubled from involvement with either the patient or their relatives than the team group. It may be that with primary nurses experiencing less stress from organisational issues they are in a better position emotionally to cope with the effects of close personal contact with patients.

SYMPTOMS OF STRESS FACTOR (VI)

Susceptibility to stress varies in personalities. Vingerhoets and Marcelissen (1988) consider that some individuals are susceptible, others impervious to stress, yet others positively seek to create a stressful environment. Stress seekers may indulge in behaviour which can be physically damaging, such as alcohol and drugs abuse (Kasl 1983). This study contained a sample of 198 subjects. It is likely that this sample would contain a full range of personality type. This study shows that the primary group had less stress reaction. Of the statements eliciting this, three had a 10% or more difference between groups, all demonstrating less stress for the primary group.

When at work the primary group felt more at ease. To the statement, 'I feel completely at ease in this job' 59% of primary nurses agreed and 44% of team nurses agreed. Tension and tiredness at work has been attributed to several causes; role ambiguity (Firth et al. 1985), inadequate training and poor support (Numeroff and Abrams 1984),
younger nurses (Livingston and Livingston 1984), workload (Dewe 1989), and fear of evaluation (Motowidlo et al. 1986). Livingston and Livingston (1984) speculate that closer clinical contact causes nurses to identify with patients more creating distress for the nurse. The closer clinical contact achieved by the primary group without increases in emotional reaction may be due to improvements in one or more of the work conditions cited in this paragraph.

Sleep disturbance can be a reflection of anxiety and depression associated with work. The team groups admitted to more anxiety and depression than the primary group, but not to a difference of 10%. The statement, 'After a day's work I have no trouble in sleeping' produced clear differences between the groups; 62% of the primary nurses agreed with this statement; only 42% of the team group agreed. La Rocco et. al. (1980) found that good work relationships reduced neurotic symptoms at work. The reduced sleep problems of the primary group are clearly a reflection of these staff being less troubled by the work itself.

The work of primary nurses is less distressing for them. Primary nurses had less trouble switching off from work, just short of the 10% (9%), but to the statement, 'Sometimes I am so frustrated I cry' elicited a 25% agreement among the primary groups and a 39% agreement from the team group. Crying may be a prodromal phase to depression. Depression is a key symptom of the emotional exhaustion associated with burnout (Jackson and McGrath 1983, Hare et. al. 1988). Parkes (1986) believes that learning to cry can be therapeutic in appropriate circumstances without the nurse losing control. There is a clear need for many nurses (one third of the sample) to express their frustration through crying. The team group has a greater need to use this means of expressing their frustration.

Student nurses experiencing primary nursing also have fewer emotional reactions to their work. Of the six statements asked of the students, two show differences at the 10% or more level. The statement, 'I have seldom felt any animosity towards patients' produced 69% agreement from the team group and 82% agreement
from the primary group. The statement, 'At the end of the day I feel washed out' elicited a 64% agreement from the team group and 53% agreement from the primary group. There was also a greater propensity for students in the team group (17%) to cry compared to the primary group (9%). Like the qualified nurses, the primary nursing students would seem more at ease with their work. It could be that benefits to 'primary' students is due to qualified nurses greater involvement with direct care which may act as a buffer for the students.

Holmes (1987) believes that primary nurses will be anxious about 'their' patients when off duty if there is not trust between the primary nurses and those left to carry out the care. Primary nurses were less anxious than their team colleagues. These findings support Keane et. al.'s (1985) study which found that nurses who were more committed felt more control and had work challenge, were less likely to encounter burnout. The difference however would be interpretation of why these characteristics existed. Keane et. al. suggests that these characteristics emanate from the individuals personality. It may be that the job design can encourage challenge, commitment and control.

DEATH AND DYING FACTOR (VII)
Nurses in general hospital wards interact with patients who are dying. This experience is repeated many times each year; people they get to know intimately die. The nurse has to come to terms with the distress this causes him/her. The primary nurse group had marginally less stress from death and dying than the team group. The individual statements produced some interesting differences between the two groups. Nurses have more distress from treating the terminally ill than other health professionals (Wolfgang 1988). Talking to someone who is dying about death is difficult. For example the statement, 'I find it really difficult to talk to dying patients about death issues' elicited differences between the primary and team groups; 44% of the team nurses agreed with this statement whereas only 30% of the primary style nurses agreed. Discussing these issues with patients is one of the most difficult tasks for nurses (Numerof and Abrams 1984). Even hospice nurses have difficulty with this area of their work (Power and Sharp 1988). It is therefore significant
that this study shows that the closer attachment facilitated by primary style nursing makes the prospects of talking to dying patients less intimidating for the nurse.

Identifying with patients who are dying, especially young patients, will influence how individual nurses cope with death (Numerof and Abrams 1984). Responses to the statement, 'I frequently think about my own death' produced marked differences in the groups. Only 8% of the primary style nurses agreed while 22% of the nurses in the team group agreed with the statement. It is possible that willingness of primary nurses to talk to dying patients acts as a buffer to their own distress. Hare et al's (1988) study found that fear of death in nurses was a significant predictor of burnout. It is possible that the increased thoughts of their own death experienced by members of the team group is a reflection of that group's fear of interacting with dying patients.

The futility of life for some individual patients is often felt by nurses. For the general public, euthanasia is a highly controversial topic, while among nurses the subject would seem to be less contentious. Of the total qualified nurse sample (N = 106) 75% rejected the statement 'I do not agree with euthanasia in any circumstances.' Primary style group disagreement was 85%, while the team style groups level of disagreement was 64%. Bailey and Clarke (1989) assert that nurses experience a variety of feelings when involved with dying patients. These vary from positive feelings (e.g. that the nurse did her best, the patient having died peacefully), to negative experiences which result in anger, anxiety, guilt and depression. Anger, anxiety and depression are not features peculiar to primary nurses in this study. Many nurses cope with death by avoiding closeness to patients because it is easier to cope with the death of a stranger than a 'friend' (Malone 1982). This over-involvement and over-investment in dying patients makes nurses more vulnerable to the stress associated with the dying process (Munley 1985). There is a clear difference between the primary and team groups. The closer relationship of primary style nursing may make the qualified nurses involved feel that coping with the problems associated with the process of dying
as futile. Or it may be that 'mental' euthanasia is one way primary nurses cope with the prospect of a 'friends' death.

Primary nurses will also be less likely to hide from the patient the fact that he/she is dying. Response to the statement, 'Often it is best not to disclose to a patient that they are dying' found that 73% of the primary style group disagreed with the statement, while 61% of the team style group disagreed. Death and dying is a major stress source in nursing (Hipwell et. al. 1989), but poor prognosis in patients was not associated with, or contributed to burnout in Hare et. al.'s (1988) study. The openness associated with primary style nursing would appear to help these staff cope better with death issues.

The only area considered to give greater stress to primary nurses from dying patients was related to euthanasia. This is because of the dissonance of holding a moral view that is at odds with society's laws. In all other areas where differences were shown, primary nurses are protected from the effects of stress probably because of the openness on these issues and the authority to control her own interactions with the patient.

WORK CONTROL FACTOR (VIII)

Most people want control over their lives both at work and their lives generally. Human beings are described by Lazarus (1985) as seeking to control events and understand them by being active, manipulative, searching and evaluative. Any lack of control, he suggests, is the basis of stress. Primary nurse style by virtue of the role content should give the qualified nurse more control of the work itself. Of the eight statements about work control, five showed a difference between the groups of 10% or more; all the differences favoured primary nursing.

There are three statements that show quite strongly that primary nurses have greater control of their work than do nurses working in team structured work. The statements are, 'I make all the decisions about nursing care'; to this statement 27% of team and 45% of primary nurses agreed. The statement, 'I wish I had more say on controlling the care of patients' produced 47%
agreement from the team nurses and 34% agreement from the primary nurses. Similarly, the statement 'I feel in control of the work' produced 64% agreement from the team nurses and 81% agreement from the primary nurses. Being in control of work may give individuals more confidence and self assurance in coping with intimate transactions. Support for such a view is suggested by Linder-Pelz et al. (1986) and Chiriboga et al. (1983). They show that nurses who try to view patients problems objectively and retain control are less likely to experience burnout. Clearly primary nurses feel greater control over their work than nurses working a team approach to care.

From the number of discrete small samples making up both primary and team scores, there is no reason to believe either group should have fewer resources than the other; yet the primary nurses felt better resourced than their team colleagues. To the statement, 'I feel there are adequate resources for me to deliver good standards of care' produced a 32% agreement from the team nurses and 42% from the primary nurses. Job design can be influential in reducing neurotic symptoms (Broadbent 1985). Powerlessness also reduces job satisfaction (Bush 1988). The reduced satisfaction with available resources may be a reflection of team nurses greater frustration in their work.

Primary nurses also feel that there is a better balance between authority and responsibility in their work. To the statement, 'I have responsibility for care but no authority' agreement of 42% came from the team nurses with 32% of the primary nurses agreeing. Primary nursing decision making is invested in the primary nurse, who agrees a course of action with the patient. In team nursing a group of nurses share decision making. Lazarus (1985) sees evaluation judgement following transactions as helping the individual decide whether the transaction '(a) is relevant or irrelevant to one's well being, (b) had already produced harm requiring undoing, ameliorating, or tolerating, (c) threatens future harm, (d) presents a challenge, or (e) forecasts a positive outcome' (P.400). The uncluttered relationship between the primary nurse and the patients problems enables this decision making process to occur without interference or without having to consider the perceptions of any number of other interested parties.
The companionship of primary nursing may be a mutually supportive relationship. Nurses in team nursing may be more of an onlooker who clearly has less control over events. This view is to some extent supported by Perälä and Hentinen (1989) who found that positive advantages expressed by nurses once they changed to primary nursing included knowing the patient better and being able to give more individual care.

MEDICAL, SURGICAL AND ELDERLY WARDS

Nursing is generally divided into specialties convenient to the type of medical intervention required by the patient. This is an efficient system which enables effective use of treatment resources and medical skills. The type of ward (medical, surgical, elderly, etc.) is the main basis from which nursing textbooks attempt to explain nursing theory. Thus these work settings are presumed to require nursing skills that are different in character and skill. This is not so. But, the weighting of skills utilized in these different areas does vary. For example, more patients on a care for the 'elderly' ward are likely to need reality orientation techniques than patients on a 'surgical' ward. Similarly, more patients on 'surgical' wards will require wound dressing changes than 'elderly' ward patients. The basis of nursing care decision should be the patient, not the ward.

There is an assumption that nursing is a series of defined tasks that can be timed. This erroneous premise is made because of the way nursing has been traditionally organised around the tasks. Nursing activity can be described as a cluster of tasks (Senior 1979). How these relate to the patient and nurse is dependent on the operational philosophy and organisational principles. According to Senior (1979), 'Procedures vary from hospital to hospital and even from ward to ward...... Equipment varies enormously between hospitals, some being modern and others out-dated.... no account is taken of the continuation of the nursing process or of wide variations in nursing policies in each hospital' (P.22-23). Additional procedures and tasks are continually added to nurses work. Senior's (1979) view is that experience shows that procedures cannot be standardised. Factors that impinge on procedures are, surveillance, teaching, interruptions

148
and advice-seeking. Senior's view is that attempting to understand nursing work through observing tasks is unproductive and misleading.

Differences between the study groups (medicine, surgical, elderly) can only be realised by describing the type of patient usually referred to these services.

MEDICAL: Patients admitted to medical wards are ill or very ill on admission. Many of the patients' disease processes are chronic. The admission to hospital is frequently to treat an exacerbation of a disease. Often, therefore, they are chronically ill and although their disease can be controlled many patients are not 'cured'. A majority of patients are emergency admissions and usually middle-aged or elderly. Tests are the means by which the medical diagnosis and prognosis is assessed and medicines the most common means of medical treatment. The pace of work is thought to be slower than general surgical wards. Patients on medical wards rarely have operations (Matthews 1988).

SURGICAL: Patients are admitted as either fit and self caring from the waiting list, or as dependent emergency admissions. There is therefore a wide variation in the physical condition of patients admitted to surgical wards. Tests are carried out on many surgical patients. Operative procedures will be carried out on the majority of patients admitted. The age range of patients is wide, from 16 years upwards. The turnover of patients is fast and the pace of work may be rapid (Attree and Merchant 1987).

ELDERLY: All patients admitted to a ward for elderly care will be over the age of 65. The patient is likely to be suffering from multiple illnesses. Some patients in elderly wards will be admitted for respite care to give their home carer a rest. There is an assumption that the patients stay will be temporary and their problems are treatable. Because of this the range of diagnostic procedures may be the same as for younger patients. Often there is a stronger social element to the illness than with other medical specialties. Further, a longer period of
reactivation may well be needed following the acute phase of illness. All of these factors create a pace of work on an elderly persons ward which tends to be less 'frenetic' than either medicine or surgery (Thomas 1986).

The factors that constitute these specialties are the type of variables than can lead to different perceptions of work stress. It was for these reasons that medicine, surgery and elderly were isolated and compared in this study.

There are no specific studies that compare medical, surgical and elderly wards stress differences. Studies that make comparisons across specialties tend to address work that is 'technically' different. Thus intensive care areas tend to be compared with 'general' wards (Keane et. al. 1986, Chiriboga and Bailey 1986, Hipwell and Taylor 1989). The general conclusion from these and other papers is that while some components may be more stressful to one specialty than another, the overall effect is that there are no significant differences. Parkes (1982) has shown that student nurses working on medical wards had more affective symptoms and more difficulty with the work environment than they experienced during surgical ward placements. This study shows the opposite of Parkes (1982) findings. The surgical wards are shown to be more stressful and produce more symptoms than the elderly or medical wards. The reason for these two different findings may be due to the samples obtained. Another explanation could be that over recent years, nursing theories have been taken up more readily in medical and elderly wards - areas which nurses have more control due to the nature of the work.

Medical models of care are inappropriate to the main issues of nursing care. Nurses looking after elderly patients have been shown to suffer tedium at work (Astrom et. al. 1987) and lack of knowledge by carers causes unnecessary suffering for patients (Stockwell 1984, Podrasky and Sexton 1988, Lindell and Olsson 1989). It can be said that medical models distract nurses from care issues. The change to a nursing perspective as determined by primary nursing shows changes to perceived stress, particularly for those staff working on surgical and elderly wards. Nurses take
more control of care decision making when primary nursing operates. It is probably this 'control' factor which mitigates the stress of 'primary' nurses on surgical and elderly wards. The reason for the two medical groups similar stress scores could be that nursing theories have been more readily adapted to medical wards which require an equal input of medical and nursing skills. Nurses on medical wards also have 'technical' and 'nursing' care problems. This variety and opportunity for more decision making involvement with medical staff could also mitigate perceived stress. The relationship between nurses and medical staff could be an important factor when considering nurses work stress. Medical support and acknowledgement is much more important to the nurse when she bases her work on medical information and outcomes. It could be that the need for social support is linked to where the organisation invests authority. When nurses utilise a medical model decision making for care is directed towards the doctor, while nursing models invest this authority in the qualified nurse.

PERCEIVED STRESS AND SYMPTOMS

This study has shown a correlation ($r = 0.596$) between perceived stress and symptoms. There is much discussion as to whether work stress does affect health. Involuntary reactions like depressed appetite or sleep disturbance may be a consequence of work stress, but according to Vingerhoets and Marcelissen (1988) it is no longer valid to explain disease processes as a consequence of intrapsychic conflict. However, they do state that there is some evidence that certain personality types are prone to specific illness or indulge in unhealthy behaviour patterns. Concepts of 'helplessness', 'hopelessness', 'giving-up, given-up' and 'vital exhaustion' have all been implicated as precursors to some common disease processes. Motivation loss is a main culprit. Psychosocial variables are considered to be significant to the development of some cancers and myocardial infarction (Kasl 1984, Vingerhoets and Marcelissen 1988). Occupations do show variances in life expectancy. Nurses on average can expect to live only one year more than a coal miner. (Morton-Cooper 1984). Health maintaining behaviour can be adversely affected by stress.
There is evidence that during the early part of their careers student nurses involve themselves with unhealthy habits. Student nurses were shown by Elkind (1988) to be more stressed than student teachers during their first year of training. As a response to this stress these nurses were shown to respond by smoking more as a way of coping with their negative feelings. Parkes (1983) has shown that the student nurses who smoke have more sickness time. She also found significant interaction between smoking behaviour and affective states. A similar picture is reported from the United States where student nurses are as vulnerable to burnout as qualified staff. To combat the stress they participate in abusive drinking (Haack 1987). As many as 55% of students report depressive symptoms (Haak 1988). Schools and colleges of nursing have a high drop-out rate.

Even before qualifying nurses are socialized to experience high levels of stress. How much of the stress is self-imposed or organisationally imposed? Social support is considered by many to ameliorate the effects of stress. According to La Rocca et. al. (1980) both mental and physical variables are influenced by the social support offered. More recent work by McGrath et. al. (1989) indicates that factors like lack of autonomy are implicated as a major stressor for nurses. Motowidlo et. al. (1986) felt that the nursing system is responsible for depression among nurses. They suggest a simple interactive remedy between nurses that encourage more respect, support, kindness, a sense of humour and personal warmth in supervision. Primary nursing can only operate in conditions of trust where nurses are supported by the senior nurse on the ward. The patient-care philosophy accepts the patient as an individual. This requires non-judgemental acceptance of the patient. For this philosophy to have congruity it is possible that staff carry over this non-judgemental approach to other relationships at work creating a less threatening environment. Team nurses cannot act autonomously whereas autonomy is a feature of primary nursing offering personal control under a supportive work structure.

A study by Livingston and Livingston (1984) found that nurses tend to exhibit more somatic symptoms as a response to stress than medical staff. They postulated that nurses suffered physical symptoms more because they had closer contact with the patient.
and thus reflected their stress by producing somatic complaints. The classification process associated with this study specifically assessed wards on how they facilitated a companionship attachment between the qualified nurse and patient. Those nurses who had closer contact with the patient complained of significantly fewer symptoms than nurses who had less contact. It is generally accepted that involvement with sick people is itself distressing. Primary nursing bases its organisational principle around the patient. Other systems are based on the institution. Assessing patients' needs that are to be met by the organisation is probably easier than is a centrally controlled system into which the nurse has to fit the patient despite his needs.

Cognitive appraisal and re-appraisal is accepted as the means by which individuals interpret their environment (Lazarus and Folkman 1984). The individual's personality is influential in both interpreting and coping with stress. 'Burnout' (which is associated with symptoms like emotional exhaustion, depersonalization, depression and physical symptoms), among nurses has been attributed to lack of supervisory support (Constable and Russell 1986), work relationships (Hare et al. 1988) lack of accomplishment (McGrath et al. 1989) and shift work (McCranie et al. 1987). In coping with these environmental stresses Kobasa (1979) found that executives whose personalities displayed 'hardiness' (commitment, control, challenge) experienced less stress and less illness. Nurses with lower personality hardiness have also been reported by McCranie et al. (1987) to report more symptoms of burnout.

Stress and personality characteristics (type A personality) have been shown to act as precursors to depression and hostility at work (Packard and Motorwidlo 1987). In their reviews on stress and health Vingerhoets and Marcelissen (1988) considered that certain personality types were prone to specific illnesses. Among nurses Linder-Pelz et al. (1986) found that high stress and feeling unwell were associated. Affective symptoms can be seen as a consequence of perceived stress and a sign of individuals being unable to cope effectively.

Nurses employed in areas which operate a primary nursing system
in this study experienced significantly less perceived stress and symptoms, even though they had closer contact with patients. There are probably two main reasons for this. First primary nurses work is designed around a nursing philosophy that places the patient as the central focus and organisational principle. It is necessary with a primary nursing structure for traditional relationships to change. This then produces a sister/charge nurse role that is one of support. Attitudes towards their own value at work are also likely to change. Accountability is clearer in this system and not shared, offering greater control for the primary nurse. Thus the nurses appraisal and re-appraisal of her work problems does not have to take account of others views. Secondly there may be some self selection of nurses who choose to work in areas that operate primary nursing. It may be that nurses who have qualities of hardiness either change their role to a primary nursing style or are drawn to a work style that enables them to have the control they desire at work. There are three possible reasons why individuals who reported more stressors also reported more symptoms, 1) Stressors provoke symptoms 2) Distressed people find themselves in less satisfactory employment and 3) Some people (e.g. those high in neuroticism) regardless of their work conditions perceive both their work and themselves negatively.

**GENDER**

Nursing is a predominately female occupation. The organisation of nursing labour has had to change as a response to social developments. Attitude changes among women and the ability of women to control the timing and size of families makes them more available as long term members of the employed. More women today seek personal fulfilment through employment. Social, economic pressures, and equal opportunity legislation increases the demand for female labour. According to Freedman and Bisetti (1988) women in western society make up 43% of the work force. Such changes have lead researchers to consider the possibility of women being affected differently by the work experience from men.

The weight of opinion today is that men and woman are equally responsive to stress at work (Cherry 1984, Heath 1986, Lennon 1987, Martocchio and O'Leary 1989, Simpson and Grant 1991). Further, reviewers have also accepted that sex differences are unimportant (Jick and Mitz 1985, Verbrugge 1985) when studying
work stress. Cherry (1984) sums it up: '....with the possible exception of pregnant women, it may not be helpful to consider women as a group of workers with particular problems in withstanding stress at work.' (P.519). Because the weight of evidence strongly suggests that men and women are equally affected by work stress, it was not thought necessary to capture data as to individual gender. It is, however, worth discussing the change of role for the nurse when working primary style nursing and its modifying effect on gender roles in hospitals.

In the traditional hospital setting, nurses have to play a female role at work (Game and Pringle 1983). The hospital structure is symbolic of the family structure: doctor = father, nurse = mother, patient = child. In the context of work, these are abnormal relationships. When nurses work is organised outside of these traditional relationships, then the symbolisms are no longer appropriate. The philosophy of primary nursing accepts the patient as an adult who has the right to retain control over his own care. The nurse is an agent of change for the patient. She supports the patient's disabilities and helps with any necessary adaptations to life-style. Within this framework the doctor is seen as a colleague who has special skills of diagnosing pathology and prescribing medical treatment. Thus in primary nursing, the opportunity for normal healthy adult relationships between patient, nurse and doctor are necessary and desirable.

Issues of accountability, responsibility and authority are clearer when the nurses' work is designed around the patient and individual qualified nurse. These changes mean that the nurse does not need to play a stereotype female role. The nurse helps the patient through the medium of her special knowledge and skills. This enables her to interact with the patient on a person to person basis. Primary nurses no longer play a secondary female submissive role. Her role is an independent one from which she can adjust care once she and the patient have agreed on need.

Lazarus (1985) views stress as a 'complex adaptive transaction between two agencies, a person and a particular environment' (P.400).
Individuals are constantly seeking to control and manipulate events in the interest of a larger plan. They seek to evaluate the outcomes of transactions with respect to these plans. This concept of appraisal/reappraisal is fundamental to his concept. Once appraised the situation confronting an individual will be seen as either a threat or a challenge. There are two ways of coping with an appraised situation. 1) Direct action. This response is aimed at altering a troubled relationship with the environment. 2) Palliation. This response seeks to soften or moderate distress. Lazarus calls this comfort seeking.

As a person with a clear role the primary nurse is expected to make adaptive responses to perceived changes that fall within her professional remit. More traditional hierarchical structures demand that the qualified nurse has to seek approval from her seniors before changing the way she interacts with the patient. It may be that the change of work concept and design from traditional work structures to primary nursing alters the perceived stress. The hapless role of being the doctors handmaiden, or an extension of the nurse-in-charge, to utilise as required, is not one that can effect good adaptive interactions with patients. Conversely the independent role as ascribed to the primary nurse can create the conditions for good person to person interaction. The change from a 'sex' based role to a skilled knowledgeable person role with appropriate authority may be one reason why the primary groups in this study experienced less stress.

Many hospitals remain steeped in traditional roles. Issues of uniforms and nurses hats still provoke emotional responses. There are those who believe a nurse is not a nurse unless 'properly' dressed for the role. Feminine hats and uniforms are themselves symbols of the institutions desire to continue employing submissive maleable workforce whose personal identity can be submerged in an elaborate female uniform, making them easy to control.

METHODOLOGICAL ISSUES

Stress research is besieged by numerous confounding variables. There is a mass of literature that has attempted to provide proof
of the root cause of stress. The problem is that in life situation research there is yet no experimental control over these confounding variables and therefore clear cut causal information has to date been unsuccessful.

On reviewing stress and health research Kasl (1984) states that there are two views frequently expressed about stress research.

1. That it is hopeless to put 'stress' into a precise scientific framework

2. That stress research design and methodology should be strengthened in order to establish causal pathways, mechanisms and mediating processes.

This lack of clarity in all aspects of stress research is acknowledged by Edwards and Cooper (1988) in an editorial addressing stress, coping and health. They say there is much 'confusion and disagreement concerning the meaning of stress, coping and health, causal relationships among these constructs, and the appropriate methodological approaches for the assessment of these constructs and their interrelationship.' (P.15).

To date there has not been a research design associated with stress research that has met all the requirements that would satisfy the scientific community. The general opinion is that longitudinal designs are more desirable because the before and after measures will be more revealing of the influence of the change intervention. This would certainly be true if all the variables were controllable. A major problem in approaching this study with before and after measures would be time. It has been estimated that primary nursing takes eighteen months to set up and up to five years for the cultural changes to occur (Zander 1985). Clearly on time scale along the loss of subjects would be very heavy. It would also have been difficult to complete this thesis in the time scales expected.

A further distraction would be the 'Hawthorn' effect on those staff involved in this study.

Cross-sectional designs make causal interpretation extremely difficult. There were, however, several advantages to utilizing
a cross sectional design for the purpose of this research. First the study should be completed in a reasonable time period. All subjects responded in a given time frame and repeated contact was not necessary. The results were made immediately available for analysis and a good sample size was achieved with little subject loss. Finally, the design was adequate for addressing the main purpose of the study. This did mean however that it is not possible to establish whether any result is due to change, personality characteristics of subjects or other circumstances beyond their control.

Psychometric work was not applied to the stress scales used. It is not possible therefore to know whether they measure the specific constructs implied by their titles, or whether they are all indicators of generalised 'stress'. Neither is it known whether items in each scale form a coherent, internally consistent set. Psychometric analysis will be carried out in the future.

The problem with measuring perceived stress is its subjective nature. It is difficult to establish how strong is the link between the stress experienced and the way nurses work is organized. However, according to Kasl (1984) when a study includes both an objective and subjective measure, the position is better for result interpretation. In this study there were clear objective differences in the way the qualified nurses attached to the patient. (The ward work assessment).

The range of samples and the small grouping of samples was designed to soften the effects of influences like management style, social support, group beliefs and the influence of individual senior nurses' personalities. The sample was taken from 28 wards in 13 hospitals. Also the sample was of sufficient size to include a broad range of subjects. Included would be a minority of men, black, older nurses and some with long service.

The main aim of this study was to establish whether perceived stress would be enhanced when qualified nurses experienced closer attachment and increased responsibility for individual patient's care. A further aim was to consider what organisational and patient care factors were influential to the outcome.
From the results it is clear that the primary nurse group experienced less stress even though they had clear responsibility for, and closer attachment, to the patients.

Between the two groups the greatest difference was related to organisational factors (role clarity and ambiguity, organisational climate, work demand and work control). A major change in primary nursing is the clear responsibility, authority and accountability of the qualified nurses role. Lack of work control has been highlighted as a major factor operating as a stressor for nurses (Wolfgang 1988, Dewe 1989). How work is organised forms the social structure for people at work. The control group members are given is likely to be reflective of the management style. Weiner's (1979) theory states that success and failure is usually attributable to the amount of control the individual considers they have. According to Chiriboga and Bailey (1986) the psychosocial characteristics within a ward is the most important factor of stress felt by nurses.

The most widely accepted theory of stress coping is that propounded by Lazarus and Folkman (1984) based on an adaptive transaction between the person and their environment. Cognitive appraisal and reappraisal is the means by which an individual evaluates outcomes of any interaction. This enables the individual to control events, thus avoiding stress. Traditionally, nurses have not been allowed to act on their appraisal. Task allocation and shared responsibility means the individual nurse sacrifices her appraisal to those who are thought to be wiser and in control, e.g. the nurse-in-charge or doctor. This dependency puts the qualified nurse out of control. The increased freedom of decision making and control of her own interaction with patients will enable each qualified nurse to appraise, reappraise and evaluate their own work. This in turn should enable her to cope more effectively with her work stress.

Nurses have been shown, within stress literature, to be more stressed than most other occupations. There is good reason for their stress to be high, working with sick and dying people. From this study we can only postulate that the way a nurse's work is designed may have some influence on her coping with stress.
at work. The pilot studies in Chapter 2 suggest that some fundamental attitude change is occurring to those nurses whose work is designed to give them more control. Feeling independent, having more status and more democratic leadership style were all benefits for staff who worked a primary style method. Birch (1977) found that the more intelligent student left nursing because they were frustrated at not being able to influence events. The philosophical change of focusing on the patient as the organisational principle and designing the primary nurses work in a way that enables her to determine how her knowledge and skills are to be applied, may be the two main causes for the results in this study. These two major factors may influence a whole range of work behaviour and attitudes.

The improved opportunity for control with appropriate authority may also have a mediating effect on work relationships. This would account for the reduction in stress 'primary' nurses experienced from patient and colleague interactions. A further possibility is that close contact with patients is made more distressing for the nurse when she is not given the authority to address patient problems that are within her professional competence.

There are clear differences between the two groups studied. Further testing and refinement of the nurse's work classification system is necessary. It has the promise of being a useful tool in identifying a major independent variable in nursing research. More studies focusing on nurse's work methods and the effects on nurses are needed. At this stage evaluative, cross sectional and longitudinal research all have a part to play in attempting to understand the conditions that will facilitate more effective coping by nurses. There are clear possibilities for further studies following this research. The prospect that nurses personalities may be influential in choosing an employer who organises work in a way that satisfies their need. It would also be of interest to know whether staff sickness, length of stay, and career expectations
are influenced by work method differences. Studies addressing work methods and state/trait anxiety and depression would be of particular interest.

GENERAL COMMENTS

It can be concluded from the data evaluated that primary style nursing is not more stressful in practice than team nursing for either qualified or student nurses. Evidence from the sample used indicates that nurses who have a more independent role experience a lower level of stress at work.

The primary group sample is of interest and should be considered further when findings show that work of a similar nature is viewed quite differently by its practitioners. The general conclusion has been that greater independence and control of their own work has had a mitigating effect on stress emanating from the work itself for nurses working a primary nursing style. There could be two other reasons for the group differences:

1. Primary nursing wards may be drawing into them the more independent personalities from the nursing workforce. These personalities may be hardier and more able to cope effectively with stresses from work responsibility.
2. The change process associated with the primary style wards may have had a temporary influence on nurses work attitudes. Apart from two of the primary style wards all had changed to primary nursing within a two year period prior to this study. Thus change was still taking place in these wards and may have had the effect of either (a) acting as a novelty with a subsequent increase of work interest and reduction in felt stress, or (b) stress increase may have been experienced by the primary group due to the change process. Thus it may be that once primary nursing matures the stress felt could be driven down further.

The primary group style was particularly difficult to find because at the time of the study this form of practice was only being pursued in a few centres. Perhaps the ideal sample for this type of study would be groups of nurses whose work methods had been established for a period of five years or
more. Such a sample would be free of doubt as to the influence change processes inflict on the results.

The greater stress for enrolled nurses among both the elderly groups is in direct contrast to all other groups stress scores (Fig. VI). It may be that the staff mix within elderly wards is weighted towards fewer registered nurses and more enrolled nurses. This would mean that the enrolled nurse would have to take responsibilities of staff nurses, thus the enrolled nurse on elderly wards could have more stress from extra work responsibilities. Information related to staffing logistics was not taken for this study.

The low scores and closeness of scores among the two medical groups may indicate that medical nurses have greater control over their work generally. There could be two reasons for this:-

a) Patients in general medical wards have need for both medical (cure) and nursing (care) interventions which offers variety in the work and patients often get 'better'.

b) Perhaps newer nursing theories have been more readily or easily adopted in general medical wards giving more control to the nurses.

The second possibility would seem to be supported by the similar low score in the elderly primary style group and the higher score of the surgical primary group which had not yet dropped to the 'floor' level of the other three groups. It may be that the three 'low' scores are a 'floor' effect in which it is unlikely for any group of nurses to go below in practice.

A further consideration is that a feature of this study has been the classification of the groups based on how attachments of patients to nurses is facilitated. The three primary style groups all had equal mean attachment scores (Medical 17, Surgical 17, Elderly 17.3). Among the team style groups the Medical group has a lower attachment score than either Surgical or the Elderly group (Medical 29.6, Surgical 32.1, Elderly 33.5). Although this lower 'medical' score could
not explain the differences between the groups it may have been a factor in contributing to the lower stress score in the Medical team group compared to the other team groups.

Nursing sick and disabled people will always be distressing. The experience of this study is that a philosophy that clarifies work responsibilities and issues of accountability designed around the patient and qualified nurse can mitigate some of the distressing aspects of caring for sick people. This benefit may well have dividends in the retention of nurses who would otherwise leave the occupation.

Footnote
There is some evidence that men and women develop different symptoms as a result of stress. Men are more prone to alcohol abuse and developing serious physical illness. Women become demoralised and have a higher rate of psychological illness. (Jick and Mitz 1985, Lennon 1987). Although gender was not considered an important issue when designing this study it would have benefitted from the inclusion of gender. Because data on gender was excluded there is an unlikely possibility that different male/female ratios may have influenced observed differences between nursing styles and ward groups.
REFERENCES

MacMillan, Nursing Times: London


Hodder and Stoughton: London

Azjen I. (1982) On behaving in accordance with one's attitude IN:
Consistency in Social Behaviour: The Ontario Symposium, Vol.2
(Eds. M.P. Zanna, E.T. Higgins, C.P. Herman)
Erlbaum, Hilledale: New Jersey

Chapman and Hall: London

Nursing Times: 74: 237-238

Baly, M.E. (1976) Nursing and Social Change
Wm. Heinemann: London

Baly M.E. (1986) Florence Nightingale and the Nursing Legacy
Groom Helm: London

Nursing Research: 36:3:170-173


Health Psychology: 1: 217-236

Bendall, E. (1971) A Nursing Dilemma (occasional paper)
Nursing Times: 67: 41-44

Binnie, A. (1987) Structural Changes
Nursing Times: 83:39:36-37

Birch, J.A. (1979) The Anxious Learners
Nursing Mirror: 148: 17-22
Supporting the Deliverers of Care: Strategies to Support Nurses and Prevent Burnout

Nursing in Process. Stress in Nursing School
A. D. Nurse: 3:2: 29-30

Bosch, L.H.M. de Lange W.A.M. (1987)
Shift Work in Health Care
Ergonomics: 30:5: 773:791

Theory Development in Perspective: The Role of Conceptual Frameworks and Models in Theory Development
Journal of Advanced Nursing: 14: 49-55

Bowlby, J. (1981)
Attachments
Penguin: Harmondsworth

Curbing Routine and Ritual
Nursing Times: 82:31: 43-45

Key Areas of Change Needed in Nursing
Nursing Standard: 21:3: 25-27

Ward Leadership Styles
Nursing Practices: 3:1: 9-11

Bowman, G.S., Meddis, R., Thompson, D.R. (1990)
Independence and Status - Two Different Work Methods
Nursing Practice: 3:2: 18-20

Briggs, A. (1972)
Report of the Committee on Nursing: Command Paper 5115
Her Majesty's Stationery Office: London

The Clinical Impact of Job Design
British Journal of Clinical Psychology: 24: 33-44

Burns, J.M. (1978)
Leadership
Harper and Row: New York

Job Satisfaction, Powerlessness and Locus of Control
Western Journal of Nursing Research: 10:6: 718-731

The Story of Nursing
Methuen & Co.: London

Cameron, K., Greger, F. (1987)
Chronic Illness and Compliance
Journal of Advanced Nursing: 12:671-676
Cameron, M. (1986)
The Moral and Ethical Component of Nurse Burnout
Nurse Management: 17:4:42B-42E

Campbell, A.V. (1983)
Moderated Love: A Theology of Caring
SPCK Publications: London

Ritual and Rational Actions in Hospitals
Journal of Advanced Nursing: 8: 13-20

Chavasse, J. (1981)
From Task Assignment to Patient Allocation: A Change Evaluation

Women and Work Stress: Evidence from the 1946 Birth Cohort
Ergonomics: 27: 5: 519-526

Stress and Burnout among Critical Care and Medical Surgical Nurses: A comparative study
Critical Care Quarterly: 9:3: 84-92

Chiriboga, D., Jenkins, G., Bailey, J. (1983)
Stress and Coping Among Hospice Nurses:
Test of an Analytical Model
Nursing Research: 32: 294-299

Coffey, L.C., Skipper, J.K., Jung, F.D. (1988)
Nurses and Shift Work: Effects on Job Performance and Job Related Stress

Cohen, S. (1985)
Cognitive Processes as Determinants of Environmental Stress
Issues in Mental Health Nursing: 7: 1-4: 65-81

The Effect of Social Support and the Work Environment upon Burnout among Nurses
Journal of Human Stress: 12:1 20-26

Cooper, R. (1973)
Task Characteristics and Intrinsic Motivation
Human Relations: 26: 387-408

Attitudes and Attitude Change
Annual Review of Psychology: 35: 395-426

Cummins, R.C. (1988)
Perception of Social Support, Receipt of Supportive Behaviours, and Locus of Control as Moderators of the Effects of Chronic Stress
American Journal of Community Psychology: 16:5: 685-700

Rewriting Nursing History
Groom and Helm: London
Davis H.K. (1988)
Recognizing Occupational Stress-related Injuries.

Davis P. (1984)
Night Nursing - An Aspect of Occupational Stress.

Davis J. (1988)
An Enquiry Into The Attitudes of Qualified Nursing Staff Towards the Use of Individualized Care Plans as a Teaching Tool
Journal of Advanced Nursing :13: 139-146

Dean M., Bolton G. (1982)
The Administration of Poverty and the Development of Nursing Practice in Nineteenth-century England
IN: Rewriting Nursing History (Ed.C.Davis) P.76-101
Groom Helm : London

Type A Personality as a Mediator of Stress and Strain in Employed Women.
Journal of Human Stress : 13: 2 : 53-60

Theory Development in a Non-University Service Setting
Journal of Nursing Administration : 17: 4: 38-44

Prolactin, Growth Hormone and Thyrotropin-thyroid Hormone Secretion During Stress States in Man
Bailliers Clinical Endocrinology and Metabolism : 1:2: 391-413

Dennis K.E. (1987)
Dimensions of Client Control
Nursing Research : 38:3: 151- 155

Dept. of Health
A Strategy For Nursing
H.M.S.O. : London

Dewe P.J. (1988)
Investigating the Frequency of Nursing Stressors:
A Comparison Across Wards
Social Science Medicine :26:3: 375-380

Dewe P.J. (1989)
Stressor Frequency, Tension, Tiredness and Coping:
Some Measurement Issues and a Comparison Across Nursing Groups
Journal of Advanced Nursing: 14: 308-320

Dick M.J. (1986)
Burn-out in Nurse Faculty: Relationships With Management Styles, Collegial Support and Workload in Collegiate Programmes.
Head Nurse Leadership Style With Staff Nurse Burn-out and 
Job Satisfaction in Neo-natal Intensive Care Units 
Nursing Research :33: 97-101

Research in Stress, Coping, and Health : Theoretical 
and Methodological Issues 
Psychological Medicine : 18: 15-20

Do Nurses Smoke Because of Stress ? 
Journal of Advanced Nursing : 13: 733-745

Stress and Human Health 
Springer : New York

Relationships Between Catecholamines in Urine and 
Physical and Mental Effort 

Stress in Nursing and Intention of Leaving the Profession 
Psychological Reports :62: 499-506

Maslach Burnout Inventory : Factor Structure and 
Norms for British Nursing Staff 
Psychological Reports :57: 147-150

Firth H., Britton P. (1987) 
Professional Depression, 'Burnout' and Personality 
in Longstay Nursing 
International Journal of Nursing Studies: 24: 3: 227-237

Fitter M. (1987) 
The Impact of New Technology on Nurses and Patients 
IN: Stress and Health Professionals (Eds.R.Payne;J. Firth-Cozens) 
John Wiley & Sons : London

Primary Nursing Assignment. IN:Nursing Management 
Saunders : London

Freedman S.M., Bisesi, M. (1988) 
Women and Workplace Stress 

Fretwell J.E. (1980) 
Hospital Ward Routine - Friend or Foe ? 
Journal of Advanced Nursing: 5: 625-636

I68
Gender at Work
Pluto Press : London

Georgiades N.J., Phillimore L. (1975)
The Myth of the Hero Innovator and Alternative Strategies for Organisational Change. IN: Behaviour Modification with The Severely Retarded (Eds: C.C.Kierman, F.P. Woodford)
Associated Scientific Publishers : Amsterdam

Nursing Management : A Systems Approach
Saunders : London

Glaser W.A. (1966)
Nursing Leadership and Policy. IN: Nursing Profession (Ed. F. Davis)
John Wiley & Son : London

Goldstein D.S. (1983)
Plasma Catecholamines and Essential Hypotension Hypotension : 5: 86-99

Organisational Stress in the Hospital :Development of a Model for Diagnosis and Prediction
Health Services Research : 6: 1: 753-754

Haack M.R. (1987)
Alcohol Use and Burnout Among Student Nurses
Nursing and Health Care : 8: 4: 239-242

Stress and Impairment Among Nursing Students
Research in Nursing and Health : 11: 125-134

Haff J., McGowan C., Potts C., Streekstra C. (1988)
Evaluating Primary Nursing in Long-term Care : Provider and Consumer Opinion
Journal Nursing Quality Assurance : 2: 3: 44-53

Predictors of Burnout in Professional and Paraprofessional Nurses Working in Hospitals and Nursing Homes
International Journal of Nursing Studies : 25: 2: 105-115

The Nursing Process : IN: Nursing Science in Nursing Practice (Ed. J.P. Smith)
Butterworths : London

Harrell J.S. (1986)
Needed : Nurse Engineers to Link Theory and Practice
Nursing Outlook : 34: 196-198

Measuring Change in Nursing Practice
The Evening Shift
Journal of Psychosocial Nursing: 23:10: 24-30

Type A Behaviour and Incidence of Coronary Heart Disease
In the Framington Heart Study
Advances in Cardiology: 29:85-95

Heath D. (1986)
America in Perspective
Houghton: Mifflin

Henderson V., Nite, G. (1978)
Principles and Practice of Nursing

Concept of the Person: Introduction to the Health Professionals Curriculum
Journal of Advanced Nursing: 12: 245-249

Hentinnen, M., Sinkkonen, S. (1985)
A Programme for Developing Nurses Skills and Nursing Practice
Journal of Advanced Nursing: 10: 405-416

Enhanced Nursing Productivity: A Social Psychologic Perspective
Public Health Nursing: 5:1: 52-63

Herzberg, F. (1968)
Work and the Nature of Man
Staples Press: London

Heslin, K. (1987)
Nursing Unit Changes from Team to Total Patient Care Dimensions: 64: 3: 27-29

Sources of Stress and Dissatisfaction Among Nurses in Four Hospital Environments
British Journal of Medical Psychology: 62: 71-79

Holmes, S.W. (1987)
Managing the Stress of Primary Nursing
Nursing Management: 18:3: 62-66

Association Between Stress and Perceived Quality of Life
Journal of American College Health: 37:1: 29-35

Hunt, J.M., Marks-Marcan, D.J. (1980)
Nursing Care Plans
H. M. and M: Aylesbury

Hunt, J. (1988)
Primary Nursing - The Next Challenge
Nursing Times: 84:49: 36-38
How Hospital Ward Members Treat Learner Nurses:
An Investigation of Learners' Perceptions in a British Hospital.

Optimizing Human Resources: A Case for Preventive
Health and Stress Management
Organisational Dynamics: 8: 5-25

Jacobsen S.F., McGrath H.M. (1983)
Nurses Under Stress
John Wiley and Sons: New York

Jick T.D., Mitz L.F. (1985)
Sex Differences in Work Stress
Academic Management Review: 10: 408-420

Johnson M. (1979)
Anxiety / Stress and the Effects of Disclosure Between
Nurses and Patients
Advances in Nursing Science: 1: 1-20

Jung F. (1986)
Shiftwork: Its Effect on Health Performance and Well Being
American Association of Occupational Health Nursing: 34: 4: 161-164

Social Status, Environment, and Atherosclerosis in Cynomolgus
Monkeys
Arteriosclerosis: 2: 359

Kasch C.R. (1985)
Towards a Theory of Nursing Action: Skills and Competency
In Nurse-Patient Interaction
Nursing Research: 35: 4: 226-230

Stress and Health
Annual Review of Public Health: 5: 319-341

Stress in I.C.U. and Non-I.C.U. Nurses
Nursing Research: 34: 4: 231-236

The Doctor-Nurse Relationship: A Historical Perspective
Journal of Advanced Nursing: 11: 745-753

A Unified Approach to Assessment of the Surgical Patient
American Journal of Nursing: 82: 612-614

Kelman H.C. (1969)
Process of Opinion Change. IN: The Planning of Change
(Eds. W.G. Bennis, K.D. Benne, R. Chin).


I72
Lathlean, J. (1988)
Viable Reality of Pipe Dream
Nursing Times: 84: 49: 39-40

Satisfaction and Behaviour. In: Motivation and Work Behaviour
(Eds. R.M. Steers and L.W. Porter)

Lazarus, R.S. (1985)
The Psychology of Stress and Coping
Issues in Mental Health Nursing: 7: 1-4: 399-418

Stress Appraisal and Coping
Springer, New York

Lazarus, R.S. (1987)
A Strategy for Research on Psychological and Social Factors
in Hypertension
Journal of Human Stress: 4:3: 35-40

Lee, E. J. (1987)
Analysis of Stressful Clinical and Didactic Incidents
Reported by Returning Registered Nurses
Journal of Nursing Education: 26: 9: 372-378

Lee, M.E. (1979)
Towards Better Care: Primary Nursing (Occasional Paper)
Nursing Times: 75: 33: 133-135

Lennon, M.C. (1987)
Sex Differences in Distress: The Impact of Gender and Work Roles
Journal of Health and Social Behaviour: 28: 290-305

Report on Work Stress Related to Social Structures and Process
In: Stress and Human Health (Eds. C. R. Elliott, C. Eisdorfer)
Springer, New York

Likert, R. (1967)
The Human Organisation
McGraw and Hill: New York

Lillis, L., Wagner, R.M. (1977)
Nursing Education, Its Effect Upon Attitudes towards
the Mentally Retarded
Rehabilitation Literature: 38: 358-363

Lack of Care Givers Knowledge causes Unnecessary
Suffering in Elderly Patients
Journal of Advanced Nursing: 14: 976-979

Occupational Stress in Nurses in an Australian General Hospital
Community Health Studies: 10:3: 307-315

Emotional Distress in Nurses at Work
British Journal of Medical Psychology: 57: 291-294
Locke S.E. (1982)
Stress Adaption and Immunity: Studies in Humans
General Hospital Psychiatry : 4: 49-58

Lyons T.F. (1971)
Role Clarity, Need for Clarity, Satisfaction, Tension and Withdrawal
Organisational Behaviour and Human Performance : 6: 99-110

MacGuire J. (1989)
An Approach to Evaluating the Introduction of Primary Nursing In an Acute Medical Unit for the Elderly - I. Principles and Practice
International Journal of Nursing Studies : 26: 3: 243-251

MacGuire J. (1989)
An Approach to Evaluating the Introduction of Primary Nursing In an Acute Medical Unit for the Elderly - II Operationalizing the Principles
International Journal of Nursing Studies : 26: 3: 253-260

The Study of Stress and Disease: Some Developments and Requirements
Social Science Medicine : 25: 6: 567-578

Nurse Recruitment to Four Provincial Hospitals 1881-1921 IN: Rewriting Nursing History (Ed. C. Davies)
Groom Helm : London

Maguire P. (1986)
Staff Nurse Perceptions of Head Nurses Leadership Styles
Nursing Administration Quarterly : 11: 1: 34-38

Maloney J.P. (1982)
Job Stress and its Consequences on a Group of Intensive Care And Nonintensive Care Nurses
Advances in Nursing Science : 4: 2: 31-42

Survey of Stress Management Content in Baccalaureate Nursing Curricula
Journal of Nursing Education : 27: 7: 321-325

The Job Context Index: A Guide for Improving the 'Fit' Between Nurses and Their Work Environment
Journal of Advanced Nursing : 14: 501-508

Manthey M., Ciske K., Robertson P., Harris I. (1970)
Primary Nursing
Nursing Forum : 9: 1: 65-83

Manthey M., (1973)
Primary Nursing is Alive and Well in the Hospital
American Journal of Nursing : 73: 1: 83-87

Patient Allocation v Task Allocation in Relation to the Nursing Process
Nursing Times : 74: 413-416
Ward Teaching Skills - An Investigation into the Behaviour
Characteristics of Effective Ward Teaching
Unpublished M. Phil Thesis: Sheffield City Polytechnic

Sex Differences in Occupational Stress: A Meta-analytic Review
Journal of Applied Psychology 74: 3: 495-501

Matthews, B.P. (1962)
Measurement of Psychological Aspects of the Nurse
Patient Relationship
Nursing Research: 11: 3: 154-162

Matthews, A. (1988)
Learning to Care on the Medical Ward
Hodder and Stoughton: London

Motivation and Personality
Harper and Row: New York

Menzies, I.E.P. (1960)
A Case Study in the Functioning of Social Systems
as a Defence against Anxiety
Human Relations: 13: 95-121

Haemodynamic Changes under Emotional Stress following
a Minor Surgical Procedure under Local Anaesthesia

Planning and Evaluating Innovations in Nursing Practice
by Measuring the Ward Atmosphere

Miller, A.E. (1978)
Evaluation of the Care Provided for Patients with
Dementia in Six Hospitals
Nursing: 78:8: 23-27

Miller, A.E. (1985)
Does the Process Help the Patient?
Nursing Times: 81: 26: 24-27

Miller, S. (1972)
The Psychology of Play
Penguin, London

Is Nursing any Business of Doctors?
A Simple Guideto the Nursing Process
British Medical Journal: 288 216-219

Attitudes of 2325 Active and Inactive Nurses to Aspects of their Work
Journal of Advanced Nursing: 7: 483-489

Morrison A., McIntyre, D (1969)
Teachers and Training
Penguin Books: Harmondsworth
The End of the Rope  
Nursing Mirror:  159: 21: 16-19

Determinants of Patient Care:  
Nursing Process or Nursing Attitudes?  

Occupational Stress:  
Its Causes and Consequences for Job Performance  
Journal of Applied Psychology:  71:4: 618-629

Munley, A. (1985)  
Sources of Hospice Staff Stress and How to Cope with it  
Nursing Clinics of North America:  20:  2: 343-355

Work Stress, Hardiness and Burnout among Hospital Staff Nurses  
Nursing Research:  36:6: 374-378

A Guide to the Practice of Nursing Using the Nursing Process  
C. V. Mosby: London

Occupational Stress in Nursing  
International Journal of Nursing Studies:  26:4: 343-358

Sources of Stress Among Nurses: An Empirical Investigation  
Journal of Human Stress:  10:2: 88-100

Orem's General Theory of Nursing:  
in: Case Studies in Nursing Theories  
(Ed. P. Winstead-Fry)  
National League of Nurses: New York

Orlando, I.J. (1972)  
The Discipline and Teaching of Nursing Process: An Evaluative Study  
G.P. Putnam's Sons: New York

Orlando, I.J. (1987)  
Nursing in the 21st Century: Alternative Paths  
Journal of Advanced Nursing:  12: 405-412

Orlick, S., Benner P. (1988)  
The Primacy of Caring  
American Journal of Nursing:  88: 3: 318-319

Subjective Stress, Job Satisfaction and Job Performance of Hospital Nurses  
Research in Nursing and Health:  10: 253-261
An Examination of the Organisational Antecedents of Stressors at Work 

The Effects of Nursing Care Modalities and Shift Assignments On Nurses Work Experiences and Job Attitude 
Nursing Research: 31:6: 364-367

Parkes C.M. (1986) 
The Caregivers Griefs 
Journal of Palliative Care: 1: 2: 5-7

Parkes K.R. (1980A) 
Occupational Stress Among Student Nurses - 1 
A Comparison of Medical and Surgical Wards 

Occupational Stress Among Student Nurses: 
A Natural Experiment 

Smoking as a Moderator of the Relationship Between Affective State and Absence from Work 

Primary Nursing 
Groom Helm: London

Perälä M. (1988) 
Interaction in Primary Nursing - Short Report 
Nursing Times: 84:49: 49

Primary Nursing: Opinions of Nursing Staff Before and During Implementation 
International Journal of Nursing Studies: 26:3: 231-242

Phipps L. (1988) 
Stress Among doctors and Nurses in the Emergency Department Of a General Hospital. (Editorial) 
Canadian Medical Association Journal: 139: 375-376

A Comparison of Sources of Nursing Stress and Job Satisfaction Among Mental Handicap and Hospice Nursing Staff. 

Nurses Reactions to Difficult Patients 
Image: 20:1: 16-21

I77
A Study of Short-term Absence From Work Among a Group Of Third Year Student Nurses  

Price B. (1987)  
First Impressions : Paradigms for Patient Assessment  
Journal of Advanced Nursing : 12: 699-705

Project 2000 (1987)  
Paper 9: The Final Proposals  
United Kingdom Central Council for Nurses, Midwives and Health Visiting : London

Platt H. (1964)  
A Reform of Nursing Education  
Royal College of Nursing : London

Workers Sleep Quality as Determined by Shift System and Demographic Factors  
International Archives of Occupational and Environmental Health 60: 425-429

Reed S.E. (1988)  
A Comparison of Nurse-related Behaviour, Philosophy of Care and Job Satisfaction in Team and Primary Nursing  

Redfern S.J. (1980)  
Hospital Sisters: Work Attitudes, Perception and Wastage  
Journal of Advanced Nursing : 5: 451-466

Reichenback H. (1968)  
The Rise of Scientific Philosophy  
University of California Press : Berkeley

Productivity: An Economic and Management Analysis With a Direction Towards a New Synthesis  
Academic Management Review : 8: 108-116

Robertson I.T., Smith M. (1985)  
Motivation and Job Design  
Institute of Personnel Management : London

Endocrine Activity in Air Traffic Controllers at Work III. Relationship to Physical and Psychiatric Morbidity  
Psychoneuroendocrinology : 7: 125-134

Introduction to Nursing : An Adaption Model  
Prentice-Hall: Englewood Cliffs, New Jersey
The Roy Adaptation Model In: Case Studies in Nursing Theories
(Ed. P. Winstead-Fry)
National League of Nurses: New York

Schmiedling, N. J. (1986)
Orlans’s Theory In: Case Studies in Nursing Theory
(Ed. P. Winstead-Fry)
National League of Nurses: New York

Schutzenhofer, K. K. (1987)
The Measurement of Professional Autonomy
Journal of Professional Nursing: 3: 5: 278-283

Senior O. (1979)
Dependency and Establishments
Royal College of Nursing: London

Atherogenic Risk in Men Suffering from Occupational Stress
Atherosclerosis: 69: 211-218

Sources and Magnitude of Job Stress among Physicians

Unequal Opportunities
Nursing Times: 85: 20: 19-

Primary or Team Nursing? Two Conditions Determine the Choice
Journal of Nursing Administration: 12: 11: 12-15

Unit Assignment: A Patient-Centred System
Nursing Clinics of North America 6: 2: 333-342

Smith, B. J., Cantrell P. J. (1988)
Distance in Nurse-Patient Encounters
Journal of Psychosocial Nursing 26: 2: 22-26

Sparrow, S. (1986)
Primary Nursing
Nursing Practice: 1: 3: 142-147

Stainton, M. C., Rankin, J. A., Calkin, J. D. (1989)
The Development of a Practising Nursing Faculty
Journal of Advanced Nursing: 14: 20-26

Stanek, L. M. S. (1987)
An Analysis of Professional Nurse Burnout in
Two Selected Nursing Care Settings
Journal of Nursing Administration: 17: 5: 3/9/33

Stanley, I. (1983)
Accountability in Nursing - 7. Where do we stand with Doctors?
Nursing Times: 79: 38: 46-48

Motivation and Work Behaviour
Stein, L.I. (1967)
The Doctor-Nurse Game
Archives in General Psychiatry: 16: 699-703

Stein M. (1981)
A Biopsychosocial Approach to Immune Function and Medical Disorders
Psychiatric Clinics of North America: 4: 203-221

Social Support Intervention Studies:
A Review and Prospectus of Nursing Contributions
International Journal of Nursing Studies: 26:2: 93-114

The Unpopular Patient
Groom Helm: London

Inexperienced Staff and the Terminally Ill (Letter)
Nursing Times: 84: 41: 13-

Straus A.L., Cerbin J., Fagerhaugh S., Glaser B.G., Mains D.
Chronic Illness and the Quality of Life
C.V. Mosby: St. Louis

A Framework for Conceptualizing Stress in Clinical Learning

The Influence of Exercise on Stress States using Psychophysiological Indices

Syme S.L., Torfs C.P. (1978)
Epidemiologic Research in Hypertension: A Critical Appraisal
Journal of Human Stress 4:1: 43-48

Family Attitudes Reported in Youth as Potential Predictors of Cancer
Psychosomatic Medicine: 41: 4: 287-302

Thomas L. (1986)
Learning to Care on the Elderly Ward
Hodder and Stoughton: London

Nursing Assessment of Childhood Chronic Conditions
Issues in Comprehensive Paediatric Nursing: 7: 165-176

Townsend, B. (1985)
Working Women
Demographics: 7:1: 47-

Tutton, L. (1987)
My Very Own Nurse
Nursing Times: 83:38: 27-29
Verbrugge, L.M. (1985)
Gender and Health: An update of hypothesis and evidence
Journal of Health and Social Behaviour: 56: 156-182

Unit Management as a Factor in Stress Among Intensive Care Personnel
Focus on Critical Care: 15:3: 45-49

Stress Research: Its Present Status and Issues for Future Developments
Social Science Medicine: 26: 3: 279-291

Visintainer, M. A. (1986)
The Nature of Knowledge and Theory in Nursing Image: 18: 2: 32-38

When Nightmore becomes Reality: Professional Misconduct
Nursing Times: 83:8: 28-30

Differences in Work Unit Outcomes: Job Satisfaction Organisational Commitment and Turnover Among Hospital Department Employees
Western Journal of Nursing Research: 10:1: 98-105

Increasing Nurses' Person-Centredness
Nursing Research: 27:3: 156-159


Primary Nursing: A Teamwork is the Answer
Journal of Nursing Administration: 15:9: 21-26

Weiner B. (1979)
A Theory of Motivation for some Classroom experiences
Journal of Educational Psychology:71: 3-25

Wells, T. (1975)
Promoting Urinary Continence in the Elderly in Hospital
Nursing Times: 71:48 : 1908-1909

Problems in Geriatric Nursing Care: A study of Nurses' Problems in care of Old People in Hospital
Churchill Livingston: Edinburgh

Activating Clinical Inferences: A Component of Diagnostic Reasoning in Nursing Research in Nursing and Health: 9: 269-277
White, R. (1978)
Social Change and the Development of the Nursing Profession
Henry Kimpton: London

Moral Distress in Nursing Practice: Experience and Effect
Nursing Forum: 23:1: 17-29

Williams, K. (1982)
From Sarah Gamp to Florence Nightingale.
A Critical Study of Hospital Nursing Systems from 1840-1897
In: Rewriting Nursing History (Ed. C. Davies) P.41-75
Groom Helm: London

Williams, R.A. (1988)
The Relationship of Cognitive Styles and Stress in Nursing Students
Western Journal of Nursing Research: 10:4 449-462

Willington, F.L. (1976)
Incontinence in the Elderly

Job Stress in Health Professionals
Behavioural Medicine: 14:1 43-47

Wright, S. (1987)
Patient-Centred Practice
Nursing Times: 83: 38: 24-27

Stressed Nurses Dealing with Incontinent Patients

Managers and Leaders: Are they Different?
Journal of Nursing Administration: 11:7: 25-31

Zander, K. (1985)
Second Generation Primary Nursing: A New Agenda
Journal of Nursing Administration: 15:3 18-24

Zanecchia, M.D. (1985)
Experiential Learning and Changing Leadership Style
Journal of Nursing Education: 9: 360-363

Sources of Stress in Third Year Baccalaureate Students
American Association of Registered Nurses: 43:3: 24-25
Appendix I

ATTITUDE TO NURSING PROCESS QUESTIONNAIRE

CONFIDENTIAL

HOW MUCH DO YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS ABOUT
THE NURSING PROCESS? PLEASE PLACE A TICK (/) IN THE APPROPRIATE COLUMN.

| 1. The Nursing Process improves nursing care. | Strongly Agree | Agree | Don't Know | Disagree | Strongly Disagree |
| 2. The Nursing Process involves too much paper work. | | | | | |
| 3. The Nursing Process is too time consuming. | | | | | |
| 4. The Nursing Process improves awareness of patient needs | | | | | |
| 5. The Nursing Process is a waste of time. | | | | | |
| 6. The Nursing Process can be used in any area | | | | | |
| 7. The Nursing Process is an elaborate Kardex system | | | | | |
| 8. There is not enough time to use the Nursing Process | | | | | |
| 9. Priorities of care are easy to identify using the Nursing Process | | | | | |
| 10. The Nursing Process works well in practice | | | | | |
| 11. The staff will never accept the Nursing Process | | | | | |
| 12. I am willing to be involved in the Nursing Process | | | | | |
| 13. The Kardex system of nursing records is unsatisfactory | | | | | |
| 14. I like the idea of the Nursing Process | | | | | |
| 15. I am now ready for the Nursing Process | | | | | |
| 16. The Nursing Process should be used by qualified nurses only | | | | | |
| 17. I am fed up with hearing about the Nursing Process | | | | | |
| 18. Patients will not like the Nursing Process | | | | | |
| 19. I am convinced the Nursing Process will work | | | | | |
| 20. Its introduction will cause problems | | | | | |

183
Appendix II
This checklist was used to assess the method of nursing of wards used in the main experiment Chapter 5. The development of this checklist is fully explained in Chapter 3. The results of applying the checklist are given on Table

<table>
<thead>
<tr>
<th>Ward Work Method Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Response</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>1. Is the nurse's assessment of patients' needs based on:-</td>
</tr>
<tr>
<td>a) A nursing perspective</td>
</tr>
<tr>
<td>b) A mixture of a) and c)</td>
</tr>
<tr>
<td>c) A medical perspective</td>
</tr>
<tr>
<td>2. Who is responsible for completing the nursing record from assessment to evaluation:</td>
</tr>
<tr>
<td>a) A named qualified nurse all of the time</td>
</tr>
<tr>
<td>b) A named qualified nurse for 70% or more of the time</td>
</tr>
<tr>
<td>c) A named qualified nurse for less than 70% of the time</td>
</tr>
<tr>
<td>d) All nurses involved with care</td>
</tr>
<tr>
<td>3. How much of the nurse's time is taken up with managerial duties:-</td>
</tr>
<tr>
<td>a) None</td>
</tr>
<tr>
<td>b) Very little</td>
</tr>
<tr>
<td>c) Some</td>
</tr>
<tr>
<td>d) A lot</td>
</tr>
<tr>
<td>4. Who has ACCOUNTABILITY for patients' nursing care and hospital stay:-</td>
</tr>
<tr>
<td>a) A named registered nurse all of the time</td>
</tr>
<tr>
<td>b) More than one registered nurse</td>
</tr>
<tr>
<td>c) A registered nurse when on duty</td>
</tr>
<tr>
<td>d) The Sister</td>
</tr>
</tbody>
</table>
5. Who has RESPONSIBILITY for a patient's nursing care and hospital stay:
   a) A named registered nurse all of the time
      ( ) 1
   b) More than one registered nurse
      ( ) 2
   c) A registered nurse when on duty
      ( ) 3
   d) The Sister
      ( ) 4

6. Who has AUTHORITY in prescribing care and ensuring it is carried out:
   a) A registered nurse all of the time
      ( ) 1
   b) More than one registered nurse
      ( ) 2
   c) A registered nurse when on duty
      ( ) 3
   d) The Sister
      ( ) 4

7. What is the Sister's role in patient care decision making:
   a) Advisory
      ( ) 1
   b) A mixture of a) and c)
      ( ) 2
   c) Central
      ( ) 3

8. Who generally discusses patient care with medical and paramedical staff:
   a) A named registered nurse
      ( ) 1
   b) Any nurse available
      ( ) 2
   c) The Sister or nurse in charge
      ( ) 3

9. How is workload controlled:
   a) By the Sister or nurse in charge after negotiating activity
      ( ) 1
   b) By the Sister or nurse in charge according to work activity
      ( ) 2
   c) By the Sister or nurse in charge regardless of activity
      ( ) 3
10. How are staff relationships conducted:
   a) Staff are involved in key ward issue decisions ( ) 1
   b) A mixture of a) and c) ( ) 2
   c) Sister makes decisions independently ( ) 3

11. Which nurse has responsibility for communicating with relatives:
    (Information obtained from either nurse or relative)
   a) A named registered nurse from admission to discharge ( ) 1
   b) The nurse allocated to the patient for a series of shifts ( ) 2
   c) The nurse allocated to the patient for a shift ( ) 3
   d) The Sister or nurse in charge ( ) 4
Appendix III
Self Assessment Sheet

This was given to Ward Sisters to complete. It was used as a cross check to the Appendix II Assessment. The results of this cross check being expressed in Fig. III.

Descriptions of nurses' work methods

Please place a tick in the box of the description which most closely represents the way you organise the ward?:

1. A group of qualified and unqualified nurses has collective responsibility, accountability and authority for the care of a group of patients from admission to discharge. The individual nurse may look after specified patients or be given tasks: these approaches are mixed, depending on how busy the ward is. The Sister has an advisory and supportive role. ( )

2. A clear line of authority exists in which the Sister sets standards by advising on and controlling care. She is supported by qualified nurses to maintain an overall ward standard. Senior nurses provide technical care, such as dressings, and junior nurses provide care commensurate with their experience, such as bed baths. Care is determined by the available time and the condition of the patient. Work is organised on a daily basis. ( )

3. A nominated registered nurse has responsibility, accountability and authority to assess needs and prescribe care for a group of patients from admission to discharge. Support staff help deliver and evaluate care. The Sister's role is purely advisory, supportive and educative. ( )

Total Beds [ ] Occupancy% [ ]
Appendix IV

QUALIFIED STAFF STRESS QUESTIONNAIRE

Confidential

This questionnaire is designed to find out what you feel about your work as it effects you as a nurse. It is intended that these results will be used for publication. It is important that you complete the questionnaire while at work. You should be on your own when you complete it and it is important that when responding to the questions, you are honest with yourself.

Place a tick (✓) in either the Agree or Disagree box according to how you feel about the question. It is important you do not miss any questions out as your questionnaire will be considered void. You cannot be identified by the information given.

Once completed, place in the envelope provided and return as arranged.

N.B. A report will be forwarded to your hospital within the next year regarding these results.

______________________________
PLEASE SPECIFY YOUR GRADE

ENROLLED NURSE ( )      STAFF NURSE ( )

______________________________

1. After a days work I have no trouble sleeping. ✓ Disagree

2. The medical staff put a lot of pressure on my work time.  

3. Caring for dying patients is an aspect of my work I enjoy. ✓ Disagree

4. I make all the important decisions in the patients nursing care. ✓ Disagree

5. I have responsibility for care but no authority. Disagree ✓

6. There are seldom changes from management that affect me. ✓ Disagree

7. I frequently think about my own death. Disagree ✓
8. The medical strategy has little influence generally in my making care decisions
   Agree  | Disagree
   ✔      |   

9. The people I work with are open and honest with you.
   Agree  | Disagree
   ✔      |   

10. I often find myself getting emotionally involved with my patients.
    Agree  | Disagree
    | ✔      

11. I do not agree with euthanasia in any circumstances.
    Agree  | Disagree
    ✔      |   

12. I feel quite content about my future in nursing.
    Agree  | Disagree
    ✔      |   

13. The nurses on this ward all get on well together.
    Agree  | Disagree
    ✔      |   

14. No-one ever tells you how you are doing in this job.
    Agree  | Disagree
    | ✔      

15. I look forward to seeing the patients each day.
    Agree  | Disagree
    ✔      |   

16. I feel there are adequate resources for me to deliver good standards of care.
    Agree  | Disagree
    ✔      |   

17. I have responsibility for care but no authority.
    Agree  | Disagree
    | ✔      

18. I am unable to do my best work because of work pressures.
    Agree  | Disagree
    | ✔      

19. When patients do not try to help themselves it makes me angry.
    Agree  | Disagree
    | ✔      

20. Medical staff here understand the problems nurses have.
    Agree  | Disagree
    ✔      |   

21. I find it really difficult to talk to dying patients about death issues.
    Agree  | Disagree
    | ✔      

- 189
22. There are no hard and fast rules to our ward routine.  

23. You're always running out of vital equipment when you most need it here.  

24. I do not always know what is expected of me in this job.  

25. The work itself does not cause me any problems.  

26. I would like to see a lot of changes on this ward.  

27. There is no doubt that I am in control of patient care.  

28. The nurse senior to me puts me under a lot of pressure.  

29. Our patients are encouraged to have a say in how things are done.  

30. I make all the decisions about the nursing care of my patients.  

31. Meeting people's physical needs is not easy.  

32. Relatives seem to believe everything should stop for them.  

33. There are too many seniors in this job.  

34. I feel completely at ease in this job.  

35. I feel like a faceless number in this hospital.  

36. My nurse colleagues are not very supportive.  

37. Dealing with patients all the time gets on top of me.
<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>38. The pace of work here is just about right.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>39. Often it is best not to disclose to a patient they are dying</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>40. When I get home I find it difficult to switch off from work.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>41. This work makes me fed up and depressed</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>42. Senior nurses are aware of what is happening on our ward.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>43. My work life and social life do not interfere with one another.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>44. I find dealing with relatives very difficult.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>45. The nursing auxiliary has as much influence on care as I do.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>46. Everyone is given the opportunity to express their opinion about patient care.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>47. The unit's senior nurse offers me good and useful advice.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>48. I find people here very supportive.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>49. I often feel anxious about work problems.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>50. I find it difficult to remember everything I should do for patients.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>51. Nurse training does not equip you for the responsibilities of nursing.</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
52. Patients think all you have to do is listen to their problems.  Agree  Disagree

53. Care is always carried out promptly and efficiently in this ward  ✔  

54. I wish I had more say in controlling the care of patients.  ✔

55. I often find it difficult to cope with the emotional aspects of patient care.  ✔

56. I feel in control of the work  ✔

57. Terminally ill patients should not be cared for in general wards.  ✔

58. It is better to keep your opinion to yourself in this job.  ✔

59. I have always been happy in this job.  ✔

60. The patients give me a lot of support.  ✔

61. I have seldom felt any animosity towards patients  ✔

62. I prefer to keep my emotional involvement with patients at arms length.  ✔

63. At the end of the day I feel washed out.  ✔

64. Sometimes I am so frustrated I cry.  ✔

MANY THANKS FOR YOUR TIME AND EFFORT
This questionnaire is designed to find out what you feel about your work as it effects you as a nurse. It is intended that these results will be used for publication. It is important that you complete the questionnaire while at work. You should be on your own when you complete it and it is important that when responding to the questions, you are honest with yourself.

Place a tick (√) in either the Agree or Disagree box according to how you feel about the question. It is important you do not miss any questions out as your questionnaire will be considered void. You cannot be identified by the information given.

Once completed, place in the envelop provided and return as arranged.

N.B. A report will be forwarded to your hospital within the next year regarding these results.

---

PLEASE SPECIFY YOUR GRADE

Student Nurse 1st Year [□] 2nd Year [□] 3rd Year [□]

---

1. Relatives of patients seem to believe everything should stop for them. [□] [√]

2. I find it difficult to remember everything I should do for patients. [□] [√]

3. After a days work I have no trouble in sleeping. [√] [□]

4. The people on this ward are open and honest with me. [√] [□]

5. The work on this ward does not give me any problems. [√] [□]

6. Patients think all you have to do is listen to their problems. [□] [√]
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>This ward makes me fed up and depressed.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>8.</td>
<td>It is better to keep your opinion to yourself on this ward.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>9.</td>
<td>I find dealing with relatives very difficult.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>10.</td>
<td>The pace of work on this ward is just about right.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>No-one ever tells you how you are doing on this ward.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>12.</td>
<td>I do not always know what is expected of me in this ward.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>13.</td>
<td>I do not feel supported on this ward.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>14.</td>
<td>The routine on this ward is not as inflexible as other wards I have experienced.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>I am allowed a say in patient care matters.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>The nurses on this ward get on well together.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>I often feel ill prepared for the work I am expected to do on this ward.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>18.</td>
<td>I feel like a faceless number on this ward.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>19.</td>
<td>Care is always carried out promptly and efficiently in this ward.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>When patients do not try to help themselves it makes me angry.</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>21.</td>
<td>I have seldom felt any animosity towards patients.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>-------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>22. The Nursing Auxiliary has as much influence on care as I do.</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>23. Qualified nurses put a high priority on understanding details of patients problems on this ward.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I prefer to keep my emotional involvement with patients at arms length.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. The qualified nurses put me under a lot of pressure.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. I often find it difficult to cope with the emotional aspects of patient care.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. I feel quite content about my future in nursing.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. I would like to see a lot of changes on this ward.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. At the end of the day I feel washed out.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. I have responsibility for care but no authority.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. I often feel anxious about work problems.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. Medical staff on this ward understand the problems nurses have.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. The patients on this ward are encouraged to have a say in how things are done.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. Sometimes I feel so frustrated on this ward I cry.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. I find people here very supportive.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. Dealing with patients all the time gets on top of me.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MANY THANKS FOR YOUR TIME!
2nd June 1988

Dear Sir/Madam,

I am a senior nurse who is pursuing a research degree through Loughborough University. My thesis is concerned with work methods and the effects of different approaches to the nurses work and the stress felt.

My main instruments for assessing the felt stress are two questionnaires, one for qualified staff and one for learners. In order that the measurements taken are valid, I wish to take samples from hospitals in a variety of Regions and Districts in order to get a good representative sample. Another objective would be to get as near to 100% return as possible so that a good cross section of nurses opinions are covered and not just those who normally complete questionnaires. I would therefore wish to meet staff who might participate in order to maximise returns. Analysis of results will relate to work method with anonymity of hospitals concerned.

I am therefore asking whether or not you would kindly give me, through your offices, access to staff in your hospital.

I await your reply.

Yours faithfully,

Mr G S Bowman
Nurse Manager
Medical Services
AIM OF STUDY

The aim of the study is to identify the work methods used by nurses and to measure the stress felt by them in 'team' and 'primary' nursing. Eight components of nurses' stress are measured by the questionnaires, these are:

1. Role clarity and ambiguity;
2. Ward organisational climate;
3. Work group relationships;
4. Work demands;
5. Emotional aspects of patient care;
6. Symptoms of stress in the nurse;
7. Death and dying;
8. Work control.

PROTOCOL

In order to obtain access and consent for the study, hospital nursing staff and directors of nursing, or equivalent, will be approached. Once access is considered favourable details of the study will be sent. This will include copies of the questionnaires, protocol and selection criteria.

Following this a date will be issued for visiting the hospital to have discussions with the relevant non-warded senior nurse regarding the work methods carried out in their wards. The methods of work categorised will be:

1. Traditional nursing;
2. Team nursing;
3. Primary nursing;

Wards that fall into the description of 'team nursing' and 'primary nursing' are those that are particularly central to the thesis. Such wards would then be visited and characteristics logged. If the wards fall into either description then staff on duty will be given a brief explanation of the study purpose and asked to complete a questionnaire. Confidentiality will be ensured by placing the questionnaire in an unmarked envelope. Both qualified staff and learners will be asked to complete the questionnaire. There will be no way to identify either qualified staff or learners with any particular hospital as the purpose is to look at the work methods not the institutions.

There will be no more than thirty questionnaires applied in any one centre in order to preserve wide representation of nurses across the country. The questionnaire will be encouraged to be completed on the same day. This is in order to get as near 100% return as possible, thus capturing responses from a full range of personalities which will make the study more credible.
The intention of the study is to take samples from Geriatrics, Medicine and Surgery, thus:

**QUALIFIED NURSES**

<table>
<thead>
<tr>
<th>Geriatric Traditional</th>
<th>= N_{20}</th>
<th>Geriatric Primary</th>
<th>= N_{20}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine Traditional</td>
<td>= N_{20}</td>
<td>Medicine Primary</td>
<td>= N_{20}</td>
</tr>
<tr>
<td>Surgery Traditional</td>
<td>= N_{20}</td>
<td>Surgery Primary</td>
<td>= N_{20}</td>
</tr>
</tbody>
</table>

**LEARNER NURSES**

<table>
<thead>
<tr>
<th>Geriatric Traditional</th>
<th>= N_{20}</th>
<th>Geriatric Primary</th>
<th>= N_{20}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine Traditional</td>
<td>= N_{20}</td>
<td>Medicine Primary</td>
<td>= N_{20}</td>
</tr>
<tr>
<td>Surgery Traditional</td>
<td>= N_{20}</td>
<td>Surgery Primary</td>
<td>= N_{20}</td>
</tr>
</tbody>
</table>

**MINIMUM TOTAL RESPONDENTS = 240**

The sequence of obtaining these numbers is not material to the study. It may be that in one centre a single type of work method may be available while in another more choices and thus more respondents up to the maximum. The learner questionnaire is a modified version of the qualified staffs'. Findings will be fed back to all participating centres in the form of a general report approximately one year after data collection. It is intended to publish results.
Appendix VII

INDIVIDUAL FACTORS AND STATEMENTS (QUALIFIED)

Factor I - Role Clarity and Ambiguity

1. I am unable to do my best work because of work pressures.

2. I do not always know what is expected of me in this job.

3. I feel quite content about my future in nursing.

4. The people I work with are open and honest with you.

5. The nursing auxiliary has as much influence on care as I do.

6. There is no doubt that I am in control of patient care.

7. Nurse training does not equip you adequately for the responsibilities of nursing.

8. I would like to see a lot of changes on this ward.
Factor II - Organisational Climate

1. There are too many seniors in this job.

2. I find people here very supportive.

3. No-one ever tells you how you are doing in this job.

4. There are seldom changes from management that affect me.

5. I feel like a faceless number in this hospital.

6. I have responsibility for care but no authority.

7. There are no hard and fast rules to our ward routine.

8. Senior nurses are aware of what is happening on our ward.
Factor III - Work Group Relationships

1. The nurses on this ward all get on well together.

2. Medical staff here understand the problems nurses have.

3. It is better to keep your opinion to yourself in this job.

4. The nurse senior to me puts me under a lot of pressure.

5. My nurse colleagues are not very supportive.

6. The unit's senior nurse offers me good and useful advice.

7. I often find myself getting emotionally involved with my patients.

8. Relatives seem to believe everything should stop for them.
Factor IV - Work Demands

1. The pace of work here is just about right.

2. Our patients are encouraged to have a say in how things are done.

3. I find it difficult to remember everything I should do for patients.

4. Meeting people's physical needs is not easy.

5. Care is always carried out promptly and efficiently in this ward.

6. The work itself does not cause me any problems.

7. I make all the important decisions in the patients' nursing care.

8. The medical staff put a lot of pressure on my work time.
Factor V - Emotional Aspects of Patient Care

1. I often find it difficult to cope with the emotional aspects of patient care.

2. Dealing with patients all the time gets on top of me.

3. The patients give me a lot of support.

4. I prefer to keep my emotional involvement with patients at arms length.

5. Patients think all you have to do is listen to their problems.

6. I find dealing with relatives very difficult.

7. When patients do not try to help themselves it makes me angry.

8. I look forward to seeing the patients each day.
Factor VI - Emotional Reaction to Stress

1. I often feel anxious about work problems.

2. I feel completely at ease in this job.

3. After a day's work I have no trouble in sleeping.

4. This work makes me fed up and depressed.

5. I have always been happy in this job.

6. My work life and social life do not interfere with one another.

7. I have seldom felt any animosity towards patients.

8. When I get home I find it difficult to switch off from work.

9. At the end of the day I feel washed out.

10. Sometimes I am so frustrated I cry.
Factor VII - Death and Dying

1. I find it really difficult to talk to dying patients about death issues.

2. I frequently think about my own death.

3. Terminally ill patients should not be cared for in general wards.

4. Caring for dying patients is an aspect of my work I enjoy.

5. I do not agree with euthanasia in any circumstances.

6. Often it is best not to disclose to a patient they are dying.
Factor VIII - Stress Associated With Lack of Work Control

1. I make all the decisions about the nursing care of my patients.

2. The medical strategy has little influence generally in my making care decisions.

3. I wish I had more say in controlling the care of patients.

4. Everyone is given the opportunity to express their opinion about patient care.

5. I feel there are adequate resources for me to deliver good standards of care.

6. You're always running out of vital equipment when you most need it here.

7. I feel in control of the work.

8. I have responsibility for care but no authority.
Appendix IX:

INDIVIDUAL FACTORS AND STATEMENTS (STUDENTS)

Factor I - Role Clarity and Ambiguity (Student)

1. I do not always know what is expected of me in this ward.

2. I feel quite content about my future in nursing.

3. The people on this ward are open and honest with me.

4. The Nursing Auxiliary has as much influence on care as I do.

5. I often feel ill prepared for the work I am expected to do on this ward.

6. I would like to see a lot of changes on this ward.
Factor II - Organisational Climate (Student)

1. I find people here very supportive.

2. No-one ever tells you how you are doing on this ward.

3. I feel like a faceless number on this ward.

4. I have responsibility for care but no authority.

5. The routine on this ward is not as inflexible as other wards I have experienced.

6. Qualified nurses put a high priority on understanding details of patients' problems on this ward.
Factor III - Work Group Relationships (Students)

1. The nurses on this ward get on well together.

2. Medical staff on this ward understand the problems nurses have.

3. It is better to keep your opinion to yourself on this ward.

4. The qualified nurses put me under a lot of pressure.

5. I do not feel supported on this ward.

6. Relatives of patients seem to believe everything should stop for them.
Factor IV - Work Demands (Students)

1. The pace of work on this ward is just about right.

2. The patients on this ward are encouraged to have a say in how things are done.

3. Care is always carried out promptly and efficiently in this ward.

4. I am allowed a say in patient care matters.

5. I find it difficult to remember everything I should do for patients.

6. The work on this ward does not give me any problems.
Factor V - Emotional Aspects of Patient Care (Students)

1. Dealing with patients all the time gets on top of me.

2. Patients think all you have to do is listen to their problems.

3. I find dealing with relatives very difficult.

4. When patients do not try to help themselves it makes me angry.

5. I often find it difficult to cope with the emotional aspects of patient care.

6. I prefer to keep my emotional involvement with patients at arms length.
Factor VI - Symptoms of Stress in the Nurse (Students)

1. I often feel anxious about work problems.

2. After a day's work I have no trouble in sleeping.

3. This ward makes me fed up and depressed.

4. I have seldom felt any animosity towards patients.

5. At the end of the day I feel washed out.

6. Sometimes I feel so frustrated on this ward I cry.