

## Doktorsrannsókn Sigrúnar Gunnarsdóttur

London School of Hygiene & Tropical Medicine

2005

### Útdráttur

Rannsóknin fjallar um starfsumhverfi hjúkrunarfræðinga og ljósmæðra á LSH og tengsl þess við starfsánægju, kulnun og gæði hjúkrunar. Erlendar rannsóknir hafa sýnt að styrkjandi stjórnunarhættir hafa jákvæð áhrif á líðan starfsmanna og gæði þjónustunnar. Fáar íslenskar rannsóknir eru til um þessi tengsl. Rannsóknin var framkvæmd á tímabilinu september 2002 til nóvember 2003. Fyrri hlutinn var spurningalistakönnun meðal 695 hjúkrunarfræðinga og ljósmæðra og var svarhlutfall 75%. Seinni hlutinn voru viðtöl við nokkra þátttakendur könnunarinnar til þess að varpa frekara ljósi á niðurstöður fyrri hlutans. Niðurstöður fyrri hlutans voru bornar saman við niðurstöður erlendra rannsókna sem byggja á sama mælitæki. Niðurstöðurnar sýna að þrátt fyrir mikið vinnuálag eru hjúkrunarfræðingar og ljósmæður á LSH ánægðir í starfi og sýna lítil merki kulnunar borðið saman við önnur lönd. Mikilvægustu áhrifaþættir í starfsumhverfinu eru mönnun, stjórnunaraðferðir hjúkrunardeildarstjóra og samskipti við sjúklinga og samstarfsfólk. Niðurstöður rannsóknarinnar eru mikilvægt framlag til þróunar þekkingar á þessu sviði og varpa nýju ljósi á starfsumhverfi hjúkrunarfræðinga. Niðurstöðurnar eru tækifæri fyrir starfsmenn og stjórnendur Landspítala til að sjá leiðir til að bæta starfsumhverfi og gæði þjónustunnar. Samkvæmt rannsókninni er fullnægjandi mönnun grundvallaratriði í þessu sambandi en ekki síður að stjórnunarhættir og samskipti séu uppbyggjandi og stuðli að innri starfshvöt hjúkrunarfræðinga og ljósmæðra á LSH.

## **Abstract**

This thesis is a study about nurses' working environment in an Icelandic hospital (LSH), and its relationship with nurse job satisfaction, nurse burnout and nurse-assessed quality of patient care. The study focuses on ways in which nurses' working environment can be improved to meet increasing health care demands and nurse shortages with the ultimate goal of providing high-quality patient care. Previous studies show positive relationships between supportive management, professional autonomy, adequate staffing and good inter-professional relationships, on one hand, and nurse job satisfaction, nurse burnout and quality of patient care, on the other. The first part of the study is a cross-sectional survey among a large sample of hospital nurses using an instrument previously employed in international studies. The second part is a series of focus group interviews with a sub-sample of the survey to further expand the survey findings.

The study shows that working environment factors and nurse job outcomes are favourable for Icelandic nurses compared to nurses in five other countries. In this study the most important predictors of better nurse and patient outcomes are managerial support at the unit level, adequate staffing and good nurse-doctor working relationships. It is suggested that intrinsic job motivation, independent nursing practice, high educational background and supportive working environment of Icelandic nurses may contribute to their quality of working life and the quality of care they give their patients. The major contribution to knowledge from this study is to re-emphasise the important role of supportive frontline management, adequate staffing and good nurse-doctor working relationships, and to indicate the importance of intrinsic job motivation. Five new sub-scales to the key instrument are revealed, and a revised model on key determinants of nurse and patient outcomes is developed.

## **Acknowledgement**

Through the journey of my PhD study I've enjoyed the support, encouragement and teaching of many to whom I owe a debt of gratitude. My time with all of you has been a blessing. First of all my sincerest thanks to my supervisors Professor Anne Marie Rafferty, Professor Don Nutbeam and Professor Martin McKee for challenging and excellent guidance and collaboration. My thanks also go to their personal assistants Karen Clarke and Darren Burdon for their help and flexibility. I much appreciate the support from members of my research committee, Dr Sean Clarke and Professor Michael Traynor, and from members of the International Hospital Outcomes Study team, Dr Linda Aiken, Jane Ball and Professor James Buchan.

My friends and team of caring scholars have all added meaning to this journey. Special thanks go to Anna Björg Aradóttir, Dýrleif Kristjánsdóttir, Dr Þorbjörn Jónsson, Linn Getz, Lovísa Baldursdóttir, Dr Hrafn Óli Sigurðsson, Dr Helga Bragadóttir and Dr Sigríður Gunnarsdóttir. The support from my superiors at LSH hospital, staff nurses and nurse managers at LSH and FSA hospitals is also greatly appreciated. My thanks go to Dr Marlene Kramer, Dr John Övretveit, Dr Guðbjörg Rafnsdóttir, Dr Guðmundur Arnkelsson and Ragnar Ólafsson for their interest in my work and good advice.

Last but not least, I thank my family, my beloved husband Agnar and my children Hannes, Kristinn and Sigrún for giving me the space and support I needed. This thesis is dedicated to my late mother Hrönn Pétursdóttir and my friend Vigdís Magnúsdóttir, in appreciation of their courage and their caring leadership.

## Conclusion

As has been emphasised throughout this study, there is a considerable body of research on how the various aspects of hospital nurses' working environment influence nurse and patient outcomes. However, there are gaps in this literature. The present study has explored the topic in an Icelandic context. This chapter presents its main conclusions and identifies key lessons learned from the research. A set of proposals is presented with regard to implications for nursing leadership practice, together with some ideas for future research and the way forward for hospital nurse management.

The evidence shows that nurse job satisfaction is related to autonomous practice, supportive management and leadership, recognition and good professional collaboration together with intrinsic motivation. Research shows that stress, working demands and lack of resources are related to nurse burnout, and social support at work and from managers are both associated with lower levels of burnout. The literature also indicates that adequate nurse staffing, professional autonomy, and good inter-professional relationships and supportive leadership are important factors in improving the quality of patient care. Despite the great number of studies, there are still gaps in the literature, as presented in section 1.6. There are also gaps in the literature with regard to the Nursing Work Index-Revised instrument (NWI-R).

The purpose of the present study is to measure as precisely as possible LSH's nurses' attitudes towards their working life and to capture some of the influential social and contextual factors via an in-depth qualitative analysis of the study problem. To this end a widely used instrument was employed, which enabled an international comparison of survey findings. Predictive factors in the nurses' working environment were identified by multi-variate analysis. These findings were expanded via a series of focus group interviews providing a better insight into contextual factors in LSH's nurses' working environment and their influence on nurse and patient outcomes.

The findings show that adequate staffing is essential for both staff and patients outcomes. This together with sufficient time for direct patient care promotes intrinsic job motivation and nurses' ability to provide good patient care. The study contributes to the body of knowledge of the impact of supportive management for better nurse and patient outcomes, specifically front line management. Autonomous practice and

intrinsic job motivation are associated to better nurse outcomes. The study shows that good nurse-doctor working relationships are important for the quality of patient care.

The favourable scores achieved for supportive management, opportunities for professional advancement, good nurse-doctor relationships and staffing measures, as compared with the international data, reveal some interesting links between the working environment at LSH and the traits of magnet hospitals and organisational empowerment. However, counter to expectations, the study does not indicate the importance of senior nurse management for nurse and patient outcomes. The qualitative findings reveal certain weaknesses in the nurse-doctor working relationships. The positive outcomes for nurse job satisfaction are supported by previous Icelandic surveys. The generally high reported levels of happiness of Icelanders might explain these findings, in agreement with the body of literature on the links between general happiness in life and job satisfaction. Nurse-assessed excellent quality of patient care is less favourable. However, these findings are neither congruent with recent local surveys, nor reinforced by the focus group findings. The observed differences can be partly explained by cultural differences in the use of language.

On balance, the study findings confirm its conceptual framework and reflect some of the traits of magnet hospitals. The study suggests that intrinsic motivation is a meaningful concept for the successful management of hospital nursing. This study observes that Icelandic nurses have the potential to enjoy a high quality of working life and to provide high-quality patient care. The context of Icelandic nursing is supportive and is characterised by independence, high educational level and supportive societal norms. Nurses at LSH report high job satisfaction and low levels of burnout, and value their work. These outcomes are related to supportive relationships with frontline managers, other health care team members and patients and with intrinsic motivation, which are further related to their ability to provide high-quality patient care.

Despite the positive results generated for working environment, job satisfaction and burnout there is some evidence for certain weaknesses in the organisation of nursing at LSH. Firstly, an increasing demand on and shortage in staff with a consequent increase in nurse workload. Secondly, a widening gap between senior management and staff. Thirdly, low levels of nurse-reported excellent quality of care

compared with other countries, notwithstanding the cultural and linguistic reasons for the observed difference.

These three groups of potential factors contradict other findings of this study, and the proposed similarities between the LSH's nurses' working environmental characteristics and the traits of magnet hospitals and organisational empowerment are partial rather than complete.

## **Implications for leadership practice and future research**

The present research has built on the work of similar studies, but there is a growing need for further research to understand the processes involved, to assess outcomes and to illustrate the linkage between them. This is necessary in order to enhance the evidence and guide decision-making in hospital nurse management, to contribute to the growing and ever more sophisticated analysis of problems within nurse working environments, to unpick and understand the complexities of the infrastructure, and draw attention to the existing strengths of hospitals. Similarly, it is vital to emphasise the potential for the hospital nurse management to devise human resource interventions, and demonstrate that these can be delivered in the practice of successful hospital management.

The study findings are specific to Iceland, but they have relevance for the wider, international nursing community. The findings may contribute to the understanding of the changing nature of nurses' working environment and thereby help to resolve recruitment and retention problems. Based on the study findings, a set of proposals and key tasks to improve the management of hospital nursing are presented. Some of these proposals have already been presented to staff and management at LSH, and to the Icelandic health authorities. The feedback has been positive and some projects have been launched as a response to challenges that have been identified in this study.

### **Adequate staffing**

The findings of this study on the importance of adequate staffing levels contributes to the body of evidence on the crucial role of staffing and work demands for nurse job attitudes and nurse retention. It is reasonable to assume that if current trends in cost-containment and lower staffing levels at LSH continue, they could produce negative effects, not only for patient care, but also for nurses and thus their retention and

recruitment. If leaders at LSH can secure adequate levels of staffing they can enable nurses to achieve quality care based on human relationships that inevitably take time and emotional space. This goal is vital both for nurse and patient outcomes. In light of this research and previous studies this is a priority action for health care leadership more widely. The use of multiple methods would be a useful step towards developing sophisticated measures.

### **Supportive management**

It is crucial that senior management at LSH support its unit managers to enable professional and independent nurse practice. Frontline managers should encourage nurses in their perception that nursing is a job worth doing. This will help to foster job satisfaction and nurses' ability to provide good patient care. Previous research has shown that transformational and empowering leadership behaviours are useful in this matter (Bass, 1998), and will help nurses to feel valued, to use their skills for high-quality patient care as well as encouraging them to remain in health care. In line with the present findings and the literature on magnet hospitals and organisational empowerment, there are reasons to suppose that supportive management is of equal importance for hospitals in other countries. More evidence must however be assembled on the role of nurse management, in particular at the unit level (Andrews and Dziegielewski, 2005). The need for more research on the influence of support from nurse managers on nurse and patient outcomes is supported by a recent review of the literature (Shirey, 2004). An intervention study might be useful in this matter.

### **Intrinsic job motivation**

This study indicates that nurses' intrinsic job satisfaction is an important aspect of successful management of hospital nursing, and successful recruitment and retention strategies. Consequently, leaders in health care should balance their cost-containment interventions so that they retain sufficient numbers of nurses who are able to enjoy intrinsic nursing values and to provide care based on human relationships. Such relationships inevitably need time and emotional space to ensure success. According to the present study it is reasonable to recommend that nurse managers and the leadership at LSH acknowledge intrinsic nurse job satisfaction as advantageous in relation to nurse and patient outcomes. This might contribute to the solution to the current problem of nurse recruitment and retention. A further possible approach to

investigate this is a qualitative study with the potential to develop a sophisticated measure of intrinsic job satisfaction. Nursing values, age and educational background are important variables for consideration in this regard (see e.g. McNeese-Smith, 2003).

### **Nurse-doctor working relationships**

The current study suggests that there is a need to improve working relationships between nurses and doctors. A potential strategy is to develop further an effective collaboration between nurses and doctors and emphasise mutual respect for the professional responsibilities of each discipline (Institute of Medicine, 2004; Rice, 2000). The content of nurse-doctor working relationship needs further exploration to identify successful communication strategies and models of collaboration between these professions and to facilitate the development and training of professional skills. Qualitative studies using the “participant observation” technique might be appropriate. Further research is also needed to examine the importance of good nurse-doctor working relationships for nurse job attitudes.

### **The role of senior management**

The gap between staff and senior management may be a sign of some organisational weaknesses at LSH. Given this, the hospital would benefit from enhancement of trust within the organisation (Gunnarsdóttir, 2004). According to the levels of social capital in the country this would be an appropriate and appreciated goal, and consistent with local societal norms (Halman et al., 2001). Increased trust between staff and senior management would help to create effective communicative channels, strengthen professional collaboration and be favourable for staff and patients (Berwick, 2003). Despite the available literature to the contrary, the influence of senior management on nurse and patient outcomes was not indicated in the present findings. Further investigation of these relationships is needed to help health care leaders organise health care services and human resources in the most productive way.

### **Nurse philosophy and professional practice**

Surprisingly, the survey findings do not show significant prediction of measures of philosophy of nursing practice for nurse and patient outcomes. However, the focus

group findings show that for nurses it is important to build their care on professional nursing philosophy and standards. There appears to be a limited set of measures and available evidence on how to evaluate this aspect of nursing and how this is related to health care outcomes. A concept analysis in this relation is an important research topic.

### **Future research related to the NWI-R**

In light of the findings presented here and recent literature there is a need to further develop the NWI-R measure. In particular, to investigate further the validity of the NWI-R instrument and its different sub-scales in measuring the different aspects of nurses' working environment, e.g. nurse autonomy, nurse and doctor working relationships, staffing, the underlying philosophy of nursing and the role of senior nurse management.

### **Summary of contributions**

The findings of the present study show the relationship between nurses' working environment and nurse and patient outcomes, and the importance of intrinsic motivation for these outcomes. This study's major contribution to knowledge is, firstly, to re-emphasise the important role of supportive nurse managerial and leadership behaviour and opportunities at the unit level. Secondly, the findings show the importance of adequate staffing levels for good nurse outcomes, thereby maximising nurses' opportunities to foster intrinsic job satisfaction through their relations with patients. Thirdly, the results re-confirm the importance of structured and mutually respectful nurse-doctor working relationships for patient outcomes. Fourthly, highlighting the importance of the cultural and linguistic adaptation of the IHOS measurement when applying the instrument in a different context. Fifthly, the results largely support a framework that confirms the working environment in a distinct and in many respects unique culture and health care system. Sixthly, careful analysis of the NWI-R data generated five empirically and conceptually acceptable sub-scales, which can be of use in further research. Seventhly, presentation of international comparison of nurse burnout levels helped to contextualise the Icelandic case. Finally, the findings of this study are noteworthy because the observed relationships between study variables are consistent with the theory and other

empirical findings, and that there are fundamental differences between LSH findings and those from other countries.

## **The way forward**

Potential solutions to the challenges of nurse recruitment and retention are undoubtedly dependent on cultural and organisational aspects as well as nurse education and the status of the profession. The overall aim remains to solve these problems with knowledge that is based on a diverse range of data utilising different methodologies across cultures and systems. Improving nurses' working environment contributes to the well-being of nurses as well as their patients and is among the most important public health interventions.

Despite the crucial role of extrinsic values in hospital nursing, intrinsic nursing values and intrinsic motivation are fundamental to nurses' quality of working life and to the quality of the care they give to their patients. The views of the nurses in the present study provide important messages that can benefit the success of hospital administration and leadership. These views correspond to those of Layard in his recent publications about happiness (Layard, 2005a; 2005b):

*“If we want a happier society, we should focus most on the experiences which people value for their intrinsic worth and not because other people have them – above all, on relationships in the family, at work and in the community,”*  
(Layard, 2005b, p. 24).

Health authorities and hospital administrators need to make better use of available evidence to meet major challenges in recruiting and retaining high quality staff and providing high-quality patient care. This thesis can be of use in raising health care leaders' awareness of problems and potentials within nurses' working environment and engage them in deciding priorities when investing in healthy nurses' working life with the ultimate goal of health advancement for staff and patients. Communicating the evidence by reporting on the determinants of better nurse and patient outcomes is all the more important in the face of pressure to manage costs and to maintain access to successful health services. The main conclusion of this thesis is that to ensure high-quality patient care, it is essential to support nurses to gain recognition of their work, to expand their range of responsibilities, and to enjoy healing relationships with patients and empowering collaboration with other health care team members and their superiors.