

ABSTRACT

THE EFFECT OF PAID AND UNPAID WORK ON NURSES' WELL-BEING IN
DIFFERENT CLINICAL SETTINGS

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ABSTRACT

Work plays a considerable part in people's everyday life. Not only paid work is increasingly dominating people's life but also the unpaid (home, family, etc.) work as well which is in many terms an 'invisible' phenomenon in most societies. For the employees working in the health care sector, especially in nursing, the effect of unpaid work can be more meaningful. In the nursing labour force the nursing shortage and a high turnover among staff nurses are very well known in many countries of the world. Nursing itself is defined as a very stressful job with potential high risk at nurses' health. Therefore the overall well-being of nurses may play an important role in retaining nurses in the field of direct patient care, like in-hospital, bedside nursing. In nursing female workers are employed predominantly. Women role in the society still carries such features which require more involvement of women in unpaid family or home activities. Until now the scientific literature predominantly examined the physical hazards and mental threats of work on nurses' health but none of them compared the double effects of paid and unpaid work of nurses providing direct patient care in hospitals and its impact on nurses' well-being.

The aim of this study was to identify different groups of in hospital nurses based on the three dimensional model (Demand-Control-Support) adopted from Johnson (1991) for paid work settings and to extend it for the unpaid work environment of nurses. Another aim of this study also was to see the connection between these different groups and nurses' well-being both in paid and in unpaid situations and finally combine them.

To reach the aims of the study a mixed method research design was used, consisting of two sequential phases. The methods complemented each other and minimized the disadvantages of using only one approach.

In the first phase a quantitative method was used to develop and test the DCS model using a cross-sectional survey and in the second phase with interviews the description of nurses' work experiences were collected. In the first phase the sample of the study consisted of 1305 in direct patient care working female nurses coming from six teaching hospitals in Hungary. A research assistant administered questionnaire was used. In the second part of the study 30 female nurses were selected from the participating hospitals and interviewed.

In both phase the data were analysed and the findings were interpreted in order to show the impact of the work environment on nurses' well-being.

This research is distinctive in that research has not previously examined the combined effect of paid and unpaid work environment on Hungarian nurses working in direct patient care. The research also highlights some significant aspects of work organization which may be taken into consideration in the future health care workplaces. Future research needs to replicate the findings, especially the use of the DCS model in unpaid work environment, in other service sectors. Future studies should pay more attention to compensate the effects of the work organization in order to retain nurses in nursing.

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CHAPTER I

INTRODUCTION AND PERSONAL LOCATION

The first chapter introduces the reader to the personal aspects that acted as drivers to why I was drawn to choosing this area to investigate as part of my PhD studies. The study focus brings into sharp relief what were a series of crucial experiences in my career as a nurse and educationalist, which resonated with my desire to investigate further the factors that might lead to my female colleagues' career decisions and overall sense of well being. Additionally there is an opportunity to concurrently provide the reader with a brief overview of the professional and organisational evolution of the Hungarian nursing profession in order to more effectively understand the Hungarian context of 'being a nurse'.

In the early 1990s, when I was thinking about my choice of career and starting my nursing studies, I had no clear idea about what nursing or even what being a nurse really meant. My perception and understanding was based upon the normal cursory and sometimes superficial experiences of the health care system and the work of nurses resulting from visiting my General Practitioner or Emergency Department for minor illnesses or injuries. This everyday range of experiences did not really impact upon my decision to become a nurse. The onset of my Bachelor nursing studies (in the early 1990s) coincided with the new wave of liberalism following the political, economic and societal change in Eastern European countries. It was perhaps the promise of a better health care system and the possibility of contributing to the introduction (into Hungary), of developed countries' nursing professionalism that was for me a very attractive proposition.

For many years prior to this time, the Hungarian health care system had been criticised for being poor with the quality of nurses' work being described as inferior (Mihályi, 2000). The focus of nursing practice was often on the more traditional way of nursing, a task centred approach, and this was generally used both in hospitals and primary care practices. The vast majority of the Hungarian nursing workforce at that time (98% in 1993), were qualified nurses but without higher education degrees. Only a few nurses in managerial positions had bachelor's degrees, usually in health care institutions management. Fortunately I had the opportunity to meet and to talk to a nurse, from the United States, who held the Doctor of Nursing Science degree. This experience

presented me with new challenges to my thinking. This meant for me that in the case of USA, nurses were given the possibility to expand their knowledge through research which may contribute to nurses' practical activity, professional development and to a wider acceptance of nursing as an equal job to medicine.

During this time, Hungary had introduced the nursing degree programme and was on this programme that I embarked on my nursing career. Like many students at that time, I increasingly grew to recognise and experience the discrepancy between what went on in practice and the idealised (theoretical) approach to practice we were being taught. When I graduated in 1997 I found that many of my fellow students were leaving the profession for other totally different careers, which required less qualification, but which were often perceived to be more rewarding. Many of my peer group for example, could speak one or two foreign languages, and were able to use this in order to leave the Hungarian health care system and seek work abroad, mostly in the UK, Germany or neighbouring Austria, where often they were able to earn considerably more money.

During my hospital practice, and later, when working on a medical ward and intensive care unit in a regional county hospital, I found some female nurses complained about the lack of resources that felt should be provided in order to enable them to carry out their nursing care. This lack of resources led to them feeling exhausted, tired and always running out of time to properly care for their patients. This situation seemed to further exacerbated by numerous conflicts with medical staff and sometimes with other colleagues on the ward, which often made real team working impossible.

In addition to the above difficulties many of mostly female colleagues encountered within their working lives, they often also experienced partner and/or family problems, which at times appeared to impact upon their performance as a nurse. The articulation of these problems, or even the admission of there being a problem is not always easy for nurses who may sometimes not even be consciously aware of their life situation. At times these organisational, professional and personal stressors can lead to physical and mental health problems for the individual, for example, depressive and/or other common mental health problems (Sutherland & Cooper, 1990).

Clearly how individuals respond to or cope with such stressors is likely to be influenced by many different factors. My experiences of working with different individuals in different practice areas reinforced this notion. However, these experiences also

highlighted the impact the particular demand of different clinical areas had on these processes. For example, the nursing tasks, carried out in the intensive care unit are observably different to those found in the general medical ward. In the intensive care unit the acuity of patients is high, and the nursing duties are more complex and based more on technical skills. In this situation, the autonomy of nurses may be higher when reacting to unexpected situations. This situation requires closer teamwork among the medical doctors, nurses, physiotherapists and other healthcare professionals. Conversely, in the general medical ward, the work may be more predictable although sometimes sudden change in the patient status can happen. In these areas of practice, multi-professional team work is often less evident, with greater hegemonic approaches being the norm. For example, the medical doctor will be more likely to assume the team leader role and dictate the work of nurses (Tahin, Makó & Jeges, 1979). In my experience, whilst more discussion could be possible over the possible treatment approaches, the lack of team working mitigates against this, making such discussion a sporadic event. Having worked as a nurse in many examples of these types of health care settings it is my contention that these are experiences common to a large number of nurses at some stage during their working lives.

It was in reflecting on these experiences that led me to question why it is that big differences can be found, related to delivering nursing care, between western and eastern countries. For example, nurses in western countries speak about such concepts as individual caring, primary nursing, team work and nursing as a career (Parkin, 1995), is this a result of nurses in Western countries being educated differently? Likewise, if they engage in different activities and procedures, does 'being a nurse' have a different meaning in western countries than it did in Hungary? Seeking answers to these questions was difficult as I had to rely on the English nursing literature, which seldom reflected the nursing situation in Eastern European countries. In particular, there is a dearth of information about the Hungarian nursing context. Much Hungarian literature in this area was only concerned with nurses' turn over rates, recruitment difficulties (Tahin, Makó & Jeges, 1979a, 1979b; Tahin, 1989), the educational background and internal relations of nurses (Jeges, Füzési & Tahin, 1982) and work satisfaction (Pikó & Piczil, 1998, 1999, 2000). Attempting to analyse the body of the Hungarian literature, led me to conclude that there was no research evidence that explored the relationship between the personal well-being of nurses and the paid work and unpaid (home) work experiences that they encountered.

Parallel with the new opportunities afforded by the macro level political changes impacting upon Hungarian society, I was keen to take advantage of the new Hungarian nursing educational system and to see nursing as a professional career and not just a task orientated job. Fortunately a professional and political decision helped to fulfil this desire with the establishment of the professional masters' degree from 2000. In undertaking the master's degree in nursing I still was interested in understanding the questions described above, but this educational experience also raised new ideas: for example, can a masters degree resolve any of the tensions in the field of nursing?; beside the technical evolution, can a humanistic approach to nursing improve the situation for nurses and patients?; and what does being a nurse in Hungary mean? These points made me think of the real experience of being a nurse in Hungary and the experience of well-being in relation to nurses' paid and unpaid work in hospital settings. Being as educator in nursing I see that the current trends in nursing education rise a lot of new question in the supply of nursing workforce and in the career of health care personnel, like the unique interpretation of the Bologna process in the Hungarian health care professionals' education (Betlehem, 2005).

THE HUNGARIAN CONTEXT

Simply asking general questions in the hope of analysing individual people's life situations may not be enough to understand Hungarian nurses' reactions to the societal changes and to the way in which Hungarian nursing has developed. In order to start to try and understand this phenomena the context of everyday life, and in particular how this context was shaped by the political and societal changes of the early 1990s, needs to be examined. As Freidson (1973) has shown in his analysis of paramedical labour force, the division of paramedical labour can only be understood, if it is not simplified to functional or technical differentiation.

Besides the advances of medical science and the development of medical technology, health related occupations have always been influenced by social, political and economic factors. Due to this, the historical division of paramedical labour, besides any shared features, will be different in each country (Glaser, 1970). The differences can be amplified, especially by the significant similarities of social and economical development, the special features of the health care system and the differences of those economical and political processes which shape them. In the Hungarian context, the

historical dividing line of economical and political circumstances is the consequence of the radical change of the social-economic system, together with health care, after World War II.

FROM THE TURN OF THE CENTURY TILL THE END OF THE WORLD WAR II (1900-1945)

In the decades that preceded World War II the social and economical limitations of Hungary basically determined the development of health care and the professional situation of health care personnel. The characteristic phenomenon of this period was that neither issues of training nor the serious social and work problems connected with the development of the nursing profession, were solved.

Although in the first decades of this century, as a consequence of the significant nationwide programme of hospital development, there were several attempts, mainly initiated by surgeons, to at least solve the problem of training, the result was a failure (Johan, 1929a). The State took no part in the training of nurses. It was done by various societies and churches, often at quite different levels and only reached limited numbers of individuals. In line with the expectations of a narrow elite group trained by Red Cross and coming from prestigious families (Kapronczay, 1994), the vast majority of secular nurses and nurses from different religious orders working in hospitals acquired some kind of expertise during their work, albeit disparate expertise (Johan, 1929a).

In this period the specialist occupation of health visitors appeared. Their appearance was motivated by those voluntary community efforts which aimed at combating high infant mortality, TB (the diseases of the masses, 'morbus hungaricus') and venereal diseases, through a network of dispensary services organised in towns. The training of health visitors lasted for a few months with the required educational background being eight years of schooling. Midwives received their certificate in training schools traditionally run by the state, however, most of them were poorly educated (Johan, 1929b).

Following World War I and the significant loss of area, population and health institutions, the economic recession heavily impacted on the otherwise slowly progressing health care service. During the 1920s the concern with the problems of health was limited and it was only at the end of the 1920s that health care was put back on the political agenda. In trying to improve public health the issue of nurse training,

including health visitor training, was once more in the spotlight. At the same time the training of assistants to doctors was proposed for a better general care of patients. The impetus for these health care improvements had been motivated by three developments. One of the greatest influences was that of surgeons, whose representatives had acquired the leading positions in country hospitals, and who became interested in technical improvement and in the creation of better conditions for nursing. The second development was more complex. During this period the number of well trained doctors increased relatively fast, as did the move towards specialisation. As only a small proportion of the population could afford to pay for medical care, hospital statuses with a standard payment was introduced and became attractive for doctors in terms of developing their own specialist area of practice. The specialization of hospital care accelerated, with diagnostic and therapeutic techniques and procedures gradually started to spread (Füzesi, 1980).

Therefore, in addition to the surgeons, other hospital specialists became interested in developing appropriate resources and support for nursing personnel capable of providing higher levels of care. Together with improved technology and the introduction of new therapeutic procedures, the demand for training of health care personnel groups (X-ray assistants, laboratory and physiotherapeutic assistants) gathered momentum. The third impetus for improving health care was the urgency that appeared in the health policy to eradicate and/or alleviate serious health problems. It was the States commitment to an improved health policy being translated into health care practice that brought the question of paramedical training to the foreground (Kapronczay, 1994).

The state, at this time, only backed the training of health visitors. In the 1930s with considerable financial support of the Rockefeller Foundation, several schools were established which until 1938 trained 360 health visitors. Besides these schools, there were schools for training health visitors run by National Stefánia Society which in total trained health visitors and nurses (Scholtz, 1941). As a result of these organised training programmes the social prestige of health visitors was high in comparison to other health care workers. This was acquired through being able to access: a higher level of education (high school graduation); three and a half years of specific vocational training while living in the school; considerably higher salaries; work which was respected and meaningful and which had high degree of autonomy. The kudos in becoming a health

visitor also led to their social background developing accordingly. They were employed by the state and worked independently in the poorer environment (Rode & Pintér, 1996).

In the case of assistants to the doctors, hospitals were left to their own devices to secure the necessary labour force and organise its programme of training. They usually solved this by organizing courses to meet the demands. Generally, the separation of the assistant's task from that of the doctor came about slowly. In most hospitals doctors did these tasks, mainly because the large general hospitals struggled with financial problems, and there was little possibility of employing assistants. However, the relatively low level of assistant's wages was in fact significantly higher than that of the hospital nurse. The laboratory and X-ray assistants were women who had experienced a better and higher education and almost in a 'caste-like way' (Füzesi, 1980) separated themselves from the nurses.

According to a survey conducted in 1928, the total number of clinical and hospital nurses was 3828 (Johan, 1929b). Out of these 28.8% were from various religious orders, the rest were secular. As far as the level of their training is concerned, 59% of them had not undertaken any course at all; 21% attended courses for one year or longer; and 20% had a less than a year's training course. In elite hospitals (2-3 thousands beds) nursing work was performed by relatively well trained women coming from middle class families. Between 8-10 thousand inpatients were attended to by those with less training and at the remaining 18 thousands bedded hospitals mostly untrained women, coming from town's working class families, did the job of nursing (Johan, 1929c). In the 1930s no significant change took place in the training of nurses. It remained institutionally fragmented, disorganized and the content and delivery of the training programme was far from being universal in the different training schools (Johan, 1934). In 1938, out of the 6007 nurses who had been registered since 1931, 36% were nuns, while 64% were secular. Of those registered nurses: 4.5% had, what was considered to be a high level (not at Bachelor degree level) of training, 32% had completed a one or two year course, 15.8% a half or one year course, 8.3% a course lasting between six weeks and six months, while the remaining 39.4% received no training whatsoever. In addition to experience of nurse training the following shows their general level of education: 3.7% graduated from high school, 44.1% finished 8 grades of schools, 52.2% had finished elementary (6 grades) school (Scholtz, 1941). Nurse wages were very low, even though

they worked 13-14 hours per day. They had no access to old age pension schemes, seldom received annual holiday entitlement, and in most hospitals the majority of them had no option but to live within the hospital. For the few who did manage to live outside of the hospital their living conditions were also poor. Their situation was worsened by the fact that they had no union that could have protected their interests (Hahn, 1938). Only the Hungarian National Federation of Nurses (established in 1902) represented nurses' cultural and material needs (Balázs, 1932).

1945-1970

THE HEALTH CARE PERSONNEL FOLLOWING WORLD WAR II (1945-1970)

During World War II most of the health institutions were either destroyed or severely damaged. The number of doctors, which was 10590 in 1938, dropped to 7240 whilst the otherwise low number of nursing personnel (21000 in 1938) decreased further. In the immediate years following the war the need to increase the health care personnel and improve their working conditions received considerable attention (Kiss, 1968).

1945-1970

In view of the devastation of Hungary's health institutions and the aftermath of the war in terms of public health the State needed to find a quick solution to the problem of providing appropriate health care. Literally, thousands of health care personnel had to be trained quickly (undertaking training courses lasting only a few weeks) and put to work as soon as possible (Kiss, 1968). Additionally, there was a need to replace those nurses working previously in religious orders which were now being forced to close. .

1945-1970

Out of necessity the solution to this crisis had to be prompt leading to a greater number of people, who had a low level of education and who acquired their skills in nursing by previous work experience, gained access to the paramedical fields, and particularly in nursing. This trend prevailed until the beginning of the 1950s when the establishment and the organization of the system of training took place. Following this, the general educational and professional level of nursing personnel improved slowly. The first reliable and available data show that by the start of the 1950s the number of nursing personnel employed was similar in number than that existed before the war and by 1954 this number was exceeded by three thousand (Kovacsics, 1965).

1945-1970

It must be emphasized, however, that – as a consequence of the change of the social and economic system in Hungary – the terms and conditions of employment for health care workers was centrally prescribed during this period. The hours of work, annual paid

vacation and access to old age pension schemes were legally determined. The protection of workers interests became the task of the Health Care Workers Union, while with the establishment of a unified state health care training system remained the responsibility of the State.

MANPOWER NEEDS – TRAINING – RECRUITMENT IN THE 50S AND 60S

The need for a health care workforce in the 1950s and 1960s was shaped by several factors. During these years the rapid extension of the national health and social insurance schemes increased the number of those who had the right to free health care (The ratio of Hungarians covered by health insurance: 31% in 1938, 47% in 1950%, 85% in 1960, 97% in 1970, every Hungarian citizen got the right to free health care in 1972). The fulfilment of the multi faceted demands for health care, as well as the fight against the “inherited” serious public health problems (for example, high infant mortality, TB and so on), could only be achieved with a fast, extensive development of the health care system, which, at the same time, concentrated on the most serious public health emergencies. The priority focus was out-patient services, health care given by specialists and mother-infant care as well as to the development of the TB patient network.

In the 1950s, hospital bed capacity was increased through refurbishment and minor small scale extensions to existing buildings In the 1960's this trend continued with, overall capacity being increased through a building programme which saw a network of new and better equipped hospitals, mainly in the countryside where provision for unmet need was more acute.

The rapid development of the Hungarian health care system coupled with the historical difficulties of providing health care personnel created further difficulties in providing an appropriate level of manpower. Not only did the hospitals and polyclinics experience these shortages, but the rapidly developing network of mother-infant care, laboratories, X-ray departments also suffered. In this latter group the introduction of newer diagnostic, therapeutic techniques and procedures added to these demand for appropriately trained personnel. Manpower demands also increased with the development of dispensaries, the district and plant medical offices, nurseries, homes for the disabled, children and the elderly all of which also belonged to the growing network of state provided health care services.

To provide the necessary skilled labour, from 1951 onwards, a training system was introduced in that allowed for a fast track health related network of schools to be established. In 1952, 26 such schools were founded and by 1965, 41 schools were in existence. However, such an increase in educational and training provision was not marked by a corresponding rise in educational level or achievement. For example, the demand to push large numbers of students through the training programmes saw a reduction in educational entry requirements. These new institutions were schools only in name and they formed no part of the wider public educational system. Courses were organized and taught according to various health care occupations. Fulltime training was offered in addition to part time evening courses. Qualifications could also be obtained through undertaking specific courses relating to specialities and which were organised on an occasional basis. The time span of the training varied according to specialities and whether the course was full or part time. Between 1952 and 1968, 55171 students were admitted to these training schools, with 40362 successfully achieving a qualification. From 1955 till 1968, 26012 students were enrolled to special courses and during this period 20064 of them qualified (Kovacsics, 1970).

These data reveal the efforts made by the state that were aimed at satisfying the demands for labour with skilled paramedical personnel. They also highlight a tendency that the training for certain specialities, mainly for the more differentiated work of assistants, accelerated in the sixties. The increased demands for skilled health workers created a 'mass production' approach to training. The training programme itself involved studying and working at the same time and perhaps as a result of this a significant number of individuals failed to complete their training. This latter point highlights the importance of the recruitment and retention strategies being developed alongside educational and training strategies.

During these years the recruitment of the health care personnel was basically influenced by those phenomena, which often accompanies periods of fast industrialization and nationalization of agriculture in particular societies. Perhaps most important of these is the mass employment of women, and the acceleration of social mobility. The opportunity to have a health care professional career (mainly nursing) ensured access to a wage earning occupation for those individuals who had left full time education after elementary schools (8 years of grade school). In comparison to the situation before

World War II their social background also changed. As well as the traditional flow of women from urban working class families working as nurses, nursing as a career became more attractive to those individuals coming from rural village families. For these individuals, becoming a nurse was one of the most effective ways of achieving social mobility. In the 1960's the process of specialist training programmes rapidly increased. There were changes to entry requirements too. For example, previously admittance to courses leading to a nursing qualification, required only an 8-year elementary school education, but by 1960, as with several other health care professional specialities, secondary school graduation became the compulsory prerequisite. Because of this, and the nature of the work, the latter occupations, e. g. physiotherapy, had higher prestige. This further highlighted the differentiation in the social background of those who chose health care professional careers. Most of the nurses still came from peasant and working class families living in rural areas, and urban working class families who either because of the lack of proper academic achievement or for some other reasons could not go on to secondary school to study further. As a consequence, relatively fewer women from working class origins could undertake those paramedical careers, which demanded secondary education such as physiotherapy, dietetics. These careers were more attractive to women coming from families of intellectuals (Tahin, Makó & Jeges, 1979a, 1979b).

THE REFORMS OF TRAINING – MANPOWER PROBLEMS – SEARCH FOR CAUSE IN THE 1970'S

The development of health care not only increased and differentiated the demands for health care manpower but by the end of the 1960's brought requirement to change the recruitment and training of nurses. The reform of the education and training became an acute necessity. These reforms to the educational system began in 1968 with the establishment of special health secondary schools around the country. By 1975 the reform and modernisation of the system was complete. The earlier structure of training courses based on different health care occupations, ceased. At that time both the health vocational schools and the health vocational secondary schools provided an almost uniformly established general and professional knowledge to general nurses and assistants. Since the former required three years of study, while the latter required four years, there were some differences between the two preparation courses, which had implications for the ethos of each training programme. The health vocational secondary school ended with an opportunity for gaining GCSE's, which allowed for further studies in higher education. With the secondary school diploma it was possible to undertake

part time specialist courses at the first level (22 kinds of health care professional areas), and at level two on three further areas. In the College for Health Care, established in 1975, a degree could be obtained in several health care professional specialties through either full time or part time (i.e. evening) courses.

The establishment of health vocational schools and the complete reform of the training system significantly increased the attractiveness of a health care professional career. As a result of this, increasing numbers of young people with secondary school educational background entered training in the seventies, giving rise to the number of young people with specialist training that earlier were not associated with secondary school level education. This way of education became a determining tendency in the composition of the health care personnel.

During this period of developing and implementing the new approach to nurse education and training, the loss of qualified personnel continued unabated. According to the data released by the Ministry of Health the most serious crisis was in 1968. At this time 17.2% of nurses, 6.1% of other skilled health workers and 25.9% of unskilled persons left their jobs. At the beginning of the 1970s there was a temporary improvement (possibly linked to an improvement of the working conditions) but by 1975 an unfavourable economic climate once again prevailed and the problems re-emerged. In that year 9.1% of the nurses, 11% of the other skilled health workers and 38.3% of the unskilled workers left their jobs. The situation was worsened by the high numbers of long-term absentees, who were often replaced by unskilled workers (Cserba, 1977).

In the second half of the 1970s there was a national wage increase, and various extra benefits were also significantly increased. Additionally, working hours were further reduced, especially for nurses with direct patient contact. These measures contributed to health care organisations ability to reduce the number of workers leaving. However the ratio of unskilled health workers, especially in the field of nursing, who were employed in positions without holding the requisite qualifications, remained largely unchanged. This raises the important issue of the need to develop retention strategies (particular for qualified staff) in the health sector. Likewise, where it is not possible to do this the implications it may have on the quality of care provided need to be addressed.

In Hungary, the high fluctuation and manpower shortages could be regarded, to a certain extent, as the consequence of the accelerated socio-economical development. Due to the changes in the occupational structure, numerous new forms of possible employment appeared with less work demands and better working conditions than those found in the field of nursing. Besides the abundance of working possibilities the role of women within the family also changed. Women were more motivated to not only be a wife and a mother but to engage in a career and/or seek paid employment outside of the home (Tahin, Makó & Jeges, 1979a). This was further reinforced by the State, who provided more nursery or kindergarten facilities, which enabled more women to work. Another factor was the rapidly increasing educational level of women, especially among the younger generation. This increased level of education also influenced expectations of career choices available to these young women (Tahin, Makó & Jeges, 1979b). During this period of educational reform having an education to degree level was gaining impetus and to some extent influencing the stratification of Hungarian society. This had an adverse effect on those who had, before the reform, received a diploma after attending a course in a health vocational secondary school. For those people this led to a disadvantageous situation especially for those who chose a nursing career, since one of the basic factors which determined the individuals' upward mobility in society, opportunities for promotion and the professional status, was the level of education they had attained.

FROM THE POLITICAL REFORMS OF THE 1990S TO CURRENT NURSING PRACTICE

During the early 1980s the nursing profession did not experience many great changes. However, following the political change in 1989, and after several attempts, the college based training and education for nurses became an integral part of the Semmelweis University of Budapest. For the first time in Hungary, nurse education and training was only provided by a university. This was a breakthrough for the development of Hungarian nursing as previously doctors had been able to dominate the health care system. Although other health care workers, for example physiotherapists, ambulance officers, health visitors, dieticians had been able to access degree level courses fifteen years earlier, within the hierarchy of the health care system, doctors had taken on a paternalistic role and prevented nursing from becoming a degree course (Vajda, 1979; Ulbing, 1992a, 1992b).

Based on the above mentioned facts, the government were hoping to make health care education more attractive and recruit more health care personnel. In 1993 as part of the initiation of the Ministry of Health and with the support of the HOPE (Health Opportunities for People Everywhere) Project the Bachelor of Nursing programme was extended across Hungary. This project aimed to assist upgrading the content of the nursing education to BSc level with providing financial support on involving external experts in this field and supporting study visit for the new teaching staff to the Western European countries. Gradually, from the middle of the 1990's, health vocational schools changed their function, too.

Currently, basic nursing education takes place in health vocational institutions (formerly health vocational secondary schools) where the admission criterion requires potential students to have GCSE qualifications. Although the number of the students entering health vocational institutes decreased, the number of nursing students entering the Bachelor Nursing programme showed an optimistic upward trend during the initial years. At that time the number of pre-registration nursing students at the largest faculty in Hungary (Pécs) was about 115 full-time and 50 part-time students (1993). During a ten-year period the number of full time students dropped to 40, whilst the number of part time students increased to 259 (2003). However this situation has serious implications when considering that recruitment decreased and it has to be taken into account that the majority of the part time students already work in the health care system and do not count as new nursing staff after graduation. Regardless of them not being considered as 'new nurses', studies show that the more highly qualified staff have a greater positive impact on patient's outcomes and on nurses' retention (ICN, 2003).

The first wave of the new bachelor programmes also provided the impetus for the development of nursing programmes at masters' level and the subsequent development of doctoral programmes (Illei, 1996). The first professional masters programme for nursing was introduced in 2000 at University of Pécs. As crowning of the career channel for health care professionals, the first doctorial school with health sciences programmes was established in 2005 and accepted its first candidates in 2006. Within about 15 years a huge educational development was detectable in the Hungarian health care labour market. Regardless of these developments in nurse education and training the majority of the problems related to nursing practice were not being addressed. The rapid and extensive development of health care service provision continues to present

difficulties particularly with regard to insufficient manpower (Ferguson & Irvine, 2003). Service developments have increased the demand for health care workers, and at the same time have increased the new career opportunities open to health care professionals. Recruitment and retention in the health sector is not only influenced by general societal factors like unemployment, proportion of GDP spending on health expenditure, but also sociological and psychological factors which effect choice of health care career. At a pragmatic level, in deciding to embark on a career in health care, potential recruits might consider; what expectations they have concerning the content of work, what will be required of them, the work environment, the pay and career prospects, the hierarchical system, and how these issues are translated in the practice area. Considering that more than 95% of nurses' workforce are women, the problems concerning the recruitment and retention of the workforce cannot be separated from the general social ethos regarding the employment of women and from the wider context of social-economical processes that determine the situation of the wider female work force (Glaser, 1970).

THE CURRENT HUNGARIAN HEALTH CARE WORK FORCE

Hungary had 178,000 health care personnel (filled posts) working in the public sector in 2002, and a small but unknown number in the private sector (see Appendix D Table 4). Of this number about 43,000 nurses work across different inpatient hospital settings in Hungary. This group makes up two thirds of the registered nurses of Hungary (62,000) (Source: ETI, 2004)¹. Although the overall number of personnel in the Hungarian health sector is not excessive compared to OECD countries this workforce is biased towards high-skill and high-cost professionals, with a high proportion being specialists practitioners (Orosz, Ellena & Jakab, 1998).

Hungary had 5.1 nurses per 1000 population in 1995, which was lower than in many Western European countries (see Appendix D Figure 3). More qualified nurses are needed to staff the health care system from year to year. Nurses usually work as assistants to doctors and not as nurse practitioners in their own right. Health sector workers were paid low wages under the previous socialistic regime and this legacy has continued (Mihályi, 2000). With the austerity packages of the mid 1990s, the salaries of nurses and physicians have fallen further, and compare unfavourably to people with similar level qualifications in the private sector. Low status and low payment has not

¹ ETI: Institute for Basic and Continuing Education of Health Care Workers in Hungary

made nursing an attractive career. In 2002 the average wages in the public sector based on the Hungarian Central Statistical Office data are 90 000 – 115 000 HUF/month (360 – 460 GBP/month) for nurses, and 130 000 – 160 000 HUF/month (520 – 640 GBP/month) for doctors. The majority (40%) of the Hungarian nurses are between the ages of 26-35 (see Appendix D Table 5-6). About 5% of nurses continue to work after retirement. (Source: ETI, 2004) Registration and membership for the Hungarian Chamber of Health Care Professionals is now compulsory in order to achieve a license to practice. However, nurse training is now being reorganized in line with recommendations on nursing education in the European Union.

Nursing policy in Hungary promotes nursing as an essential part of the country's health care delivery system and as a link to the welfare system, but in comparison to medical education nurse training in the past has been neglected, creating a large gap between medicine and nursing. Nurse training takes place at several levels. Most nurses currently practising undertook the four-year vocational course at secondary school (between ages 14–18 years). Currently, entry to nurse training requires a secondary school leaving certificate (GCSE). After successful completion of the three-year training course students are awarded a diploma in nursing. This basic nursing education can be followed by post-basic courses in clinical specialities, for example midwifery, paediatric nursing, critical care nursing, oncology nursing and operating theatre nursing. These courses are usually undertaken whilst the nurse is already working in the specialised area of practice and this is underpinned by related theory.

Nine colleges of health sciences offer a four-year bachelor degree programme in nursing, and graduates can continue their studies by undertaking programmes at university level. There are now two masters' degrees in health sciences: MSc in Nursing (Oláh, 2003) and MSc in Health Visiting, available to those graduates who wish to continue with their education. Based on the Bologna process it is planned to widen the range of MSc programmes in the future in order that other health care personnel are afforded similar opportunities to nurses (eg. Physiotherapy, Dietetics).

Although the present legislation does not make it possible to recognize former credits from the diploma course, graduates of the three-year programme can upgrade to the bachelor nursing programme. The Ministry of Health now funds bridging programmes in order to bring those with out-dated nurse qualifications up to the current training

level (diploma level). Qualified health workers now include the baccalaureate nurse, dietician, physiotherapist, sanitary inspector, health visitor, social worker, health insurance expert, ambulance officer (paramedic), optometrist, medical laboratory analyst, diagnostic imaging specialist and master in nursing and health visiting. The Universities and the Central Training Institute offers a large range of postgraduate specialities for qualified health workers. The Ministry of Health has two continuing education institutes for health care support personnel, and is primarily responsible for the coordination of specialist training. Until recently Hungary had no training courses in public health or health administration (McKee, Boján, & Normand, 1993). New centres and courses are being developed. These include the Health Services Management Training Centre at Semmelweis Medical University and the School of Public Health at Debrecen Medical University, both supported by a World Bank loan agreement and by the Ministry of Health. The Health Services Management Training Centre offers an MSc as well as continuing education programmes for hospital managers.

Parallel with the extension of nursing education in Hungary a new challenge influences all higher education in Europe. This is the so called 'Bologna process' which has to be adopted in each country joined to the European Higher Education Area. Among more than 30 European country, Hungary has signed the contract and accepted to introduce the new structure of higher education based on 'Bologna Treaty' by 2006 (Bologna Process). This pledge affected the freshly developed structure of Hungarian health sciences education, although it already met the requirements of the two cycle education system. The introduction of new basic degree programmes comprised the former existing college programmes into 4 general basic degree programmes. For example, the former existing separate degree programmes like physiotherapy, dietetics, ambulance officer, nursing, midwifery appear as nursing and patient care programme. All professionals start with one and a half year common education basis and than the students can decide on which track they follow their specialization in order to gain a special degree in the above mentioned fields. Beside its rational there is threat that nursing again loses its own identity (Betlehem, 2005).

PROFESSIONAL ORGANIZATIONS, ASSOCIATIONS AND UNIONS

Voluntary associations were restricted under the previous socialistic regime, except for trade unions. A notable feature of the last decade has been the rapid growth in the number of voluntary organizations, trade unions and other interest groups.

For all professionals working in health care, membership of one health care related Chamber is now compulsory. All nurses and other allied health care professionals in Hungary working in the health care service must be registered at the Hungarian Chamber of Health Care Professionals since 2005. The structure, tasks and responsibilities of the Chamber, including issuing a code of ethics, are legally defined in the law (Act LI of 1994). The Chamber can discipline those who violate its rules, can express an opinion on a range of health care related issues and can veto contract conditions between health care workers and the National Health Insurance Fund Administration. The articulation of the interest of health care workers to policy makers is also one of the major responsibility of the Chamber. This body also took over the National Registry for health care workers in Hungary from 2006 (Act LXXXIII of 2003). Before 2006 the National Registry for health care professional was run by a background institute of the Ministry of Health. This was the first time in Hungary when by the health care professionals elected presidency of the Chamber could control health care professionals' activity and give support for them.

The large number of professional and scientific associations in the field of health sciences includes the Hungarian Hospital Association, the Association of Nursing Directors, the Hungarian Nursing Association, and Hungarian Scientific Society of Nursing. As an advisory body to the Minister of Health the Professional College of Nursing has been founded. The largest health related professional organization in Hungary, the Federation of Hungarian Medical Societies, has 83 member societies and more than 25,000 individual members. Patient associations are also growing, with over 70 in various fields of health services.

The health sector trade union of the socialist regime has lost its monopoly. There are now several unions, the largest being the Health Workers' Democratic Union. Representatives of trade unions and employer organizations participate in the Welfare Interest Reconciliation Council. The main objective of the Council is to handle labour relations in the health and social sector.

THE ROLE OF NURSES IN THE HUNGARIAN HEALTH CARE SYSTEM

The current structure of the Hungarian health care system represents a considerable departure from the previous, highly centralized, socialist model. Over the last 15 years the system has become more pluralist with responsibilities divided between various

players, while the previous hierarchical relationships have partly been replaced by contractual relationships. The status of the nurses within the health care system has also changed. After 1996, nurses could not only be employed in the public health care system but could also start their own private sector enterprise. This was a revolutionary change. A new legal definition for nursing was introduced by the law in 1997 (Act CLIV of 1997) which enabled to see nurses' work as integral part of the health care process and gave a formal frame of what nursing might mean in the Hungarian context.

Health services in Hungary continue to be funded mainly from the compulsory National Health Insurance Fund for recurrent costs and from taxation for capital costs. Public providers in facilities owned mainly by local governments are predominant in delivering health services mainly through contract with the National Health Insurance Fund Administration (NHIFA). The government is the dominant regulator of health services and in being so, exercises statutory supervision over the National Health Insurance Fund Administration, provides capital costs, finances and delivers public health services and provides most tertiary care services (Boncz et al., 2004). In Appendix D, Figure 1 outlines the current organizational structure of the health care system within the three-tier public administration system. Relationships may be either hierarchical (including ownership and direct control) or contractual. The Hungarian health care system provides care of a quality below, but generally not much below, that of Western Europe to a relatively sick population, while spending only one sixth to one tenth of that spent in Western European countries (Holló, Long & Papp, 1998).

More fundamental change has occurred in relation to the role of the primary health care services. The 1990 health sector reforms were aimed at strengthening primary health care. Recent legislation resulted in primary health care being separated from hospital administration. Doctors were re-titled from district physicians to 'family physicians', who provide health care to all family members through the Family Physician Service (Act LXV of 1990). Later legislation confirmed the principles of patient choice and continuous primary care in an ongoing doctor-patient relationship (Act CLIV of 1997). The ultimate objective is to deliver comprehensive primary and preventive health care in local communities. Primary care remains the overall responsibility of local government. Other health care service provided in primary care include: dental care, mother and child health services, school health care services and occupational health care services where assistants and nurses are also an integral part of the service. In

2002, 5,125 physicians, 1,579 paediatricians, 5,854 district nurses and 4,460 health visitors provided the primary health care throughout Hungary (Source: Statistical Yearbook of Hungary, 2002). One district nurse carries out 600-750 visits in an average.

Hungary has developed a well-regarded network of mother and child health nurses and the planned reforms envisage their wider primary care role (Gábor & Pogány, 1996). In 2002, there were 5,104 health visitors. Legislation required local governments to provide health visiting and mother and child health nurse services within geographic districts and to offer preventive and primary care services in women's health, antenatal care, maternity care and care for children aged 0-16 years. Local governments employ health visitors and county/capital city nursing officers with professional supervision from the National Public Health and Medical Officer Service. The chief nursing officer and the chief health visitor are on the staff of the Executive Office of Ministry of Health. With the declining birth rate and widening socio-economic divisions, mother and child health nursing may need to take on a broader role, including the prevention and identification of risk, physical and mental health services and assistance with social problems. Their training must be improved in relation to promoting family planning, safe childbearing, healthier lifestyles and in preventing addictions (Mihályi, 2000).

Beside the family doctor's service, nurse led home care services can provide basic and special nursing care for patients. The total number of registered home care services in 2003 was 349 and they were providing care for 39,741 patients in their homes.⁴ Home nursing services in Hungary face several challenges: a growing number of older people within the overall population, more people with chronic physical and mental illnesses and more demand for home nursing as the average length of stay in hospital decreases. Home nursing services are being developed to facilitate earlier discharge from hospital, with a separate budget being identified in the National Health Insurance Fund Administration for home care. But this meets only one fifth of the demand for home nursing (Oláh et al., 2004).

Secondary and tertiary care

Hungary developed a hospital-centred system of health care prior to the 1990s, which is beyond the current economic capacity of the country and beyond the level of care

² Unpublished data from the Health Insurance Fund Statistical Office, 2003 (Gyogyinfok)

required (Szócska, Réthelyi & Normand, 2005). Health care service reforms aim to move more treatment from inpatient to outpatient services and to expand day surgery as well as non-invasive and micro level diagnostic and therapeutic procedures (Gaál, 2004), which emphasize the work of qualified nurses with more autonomy in the patients' home.

Outpatient specialist services

In 2002, there were 263 specialist ambulatory care institutions in Hungary; 155 were affiliated to hospitals, and over 100 were freestanding polyclinics providing diagnostic and therapeutic services (Source: Statistical Yearbook of Hungary, 2002). The current intention is that polyclinics should undertake more procedures previously performed in hospitals but their future is still being debated. The local governments since 1990 have owned most public outpatient facilities. Private outpatient clinics do not contract with the Health Insurance Fund and do not get government support, except in special cases like diagnostic or dialysis services. In 1997 the private sector received 80% of the total kidney dialysis budget, 75% of the CT equipment budget, and 57% of the MRI budget. The number of private specialty clinics is not substantial (around 50 clinics in 1997) but is increasing and many public sector specialist doctors also offer out-of-office hours private consultations (Kornai, 1998).

Inpatient services

Hospitals were and are the dominant workplaces of Hungarian nurses which give a characteristic appearance to their profession and duties today, too. The reforming of health care system in Hungary involved hospitals organization largely where nurses' work not untouched, as well. The current situation of reforming of hospital's structure and care are the following:

Hungary had 159 hospitals in 2002 at national/regional, county and municipal level and although their number has remained stable, their size and structure has changed. Many large hospitals have been reduced from over 1,000 beds to around 800 beds. Geographic inequalities still exist despite attempts to redress these (Kereszty & Nógrádi Tóth, 1998). For example, the 40 hospitals in Budapest represent almost 40% of the total facilities in Hungary, although only 20% of the population live in the capital. Many hospitals need major repairs since investment in the infrastructure has been neglected for decades.

There are three main levels of inpatient care. Municipal hospitals serve a local population. Municipal and county hospitals provide secondary care to a regional population. Tertiary care is provided on a regional or national basis by some county hospitals and by medical universities and national institutes. In addition, dispensaries treat long-term conditions and hospice care is also being developed. In 2002 municipal hospitals with, on average, 370 beds offer basic specialities such as internal medicine, surgery, obstetrics and gynaecology, and usually paediatrics. They cater for around 100,000 people within a distance of about 25-30 kilometres. Municipalities have owned these hospitals since the early 1990s, and investment and maintenance are financed by local taxes and by central state grants. Support and diagnostic services include general laboratory services, ECG, X-ray, diagnostics, ultrasound, defibrillators, histological and pathological examination and anaesthesiology. One source of financial tension for the municipality is that its hospital may also be used by the whole county.

County hospitals had an average of 1200 beds in 2002 and offer the main specialities plus secondary care such as diagnostic imaging services, cardiology, haematology, immunology, endocrinology, dialysis, oncology diagnostic services and crisis intervention in psychiatry.

Tertiary care is provided by five medical universities and by 18 national institutes. National institutes provide services that require extensive equipment and specialists (PET diagnostic, rare infectious diseases, special surgical interventions). Hungarian tertiary care specialists aspire to international standards of professional knowledge and technology.

Hospices have been established to provide palliative care and care during the terminal phases of dying. Since the establishment of the Hungarian Hospice Foundation in 1991, seven palliative care hospital departments and twelve hospice home care teams have been established (Hegedűs, 1998). By the end of 2000, they had served more than 3,000 patients. The rising number of deaths from non-communicable diseases has increased the need for hospice care.

About 160 pulmonary disease dispensaries, 130 clinics for sexually transmitted diseases, and 68 oncology clinics provide specialist preventive services, as well as clinics to treat alcohol abuse and mental health problems. In 2002, pulmonary disease

dispensaries screened nearly 2 million people, 5% more than the previous year, and the effectiveness of screening and the diagnosis of positive TB cases also have improved (Source: Statistical Yearbook of Hungary, 2002).

The number of hospital beds per 1,000 population increased in Hungary between 1980 and 1990, in contrast to the European Union where there was a decrease during this period. However, since 1995 Hungary has also seen a decrease in the number of hospital beds and this is in keeping with most other Central and Eastern European countries where there was a further reduction in hospital beds between 1990 and 1996. In 1994, the hospital beds per 100,000 population in Hungary were higher than the Western European average (see Appendix D Figure 2).

The total number of hospital beds dropped by over 8,800 between 1990 and 1995, and another 18,000 beds were closed during 1996 and 1997, giving an 18% decrease in total beds between 1990 and 2002 (see Appendix D Table 2-3). It should be noted, however, that the original distinctions made by hospitals as to which of their beds were 'acute' and which 'long-term' was somewhat arbitrary.

The Government aims to reduce excess capacity in order to enhance the efficiency and ultimately the quality of health services. The change to performance-based financing for hospitals was not successful in producing structural reorganization in the early 1990s. The government next attempted to tackle the issue through regulation. The 1996 Act and decree have resulted in a significant reduction in both hospital inpatient and outpatient capacity. The maximum number of beds per county and the share of each specialty have been defined. The intention is to produce a more equitable geographic distribution of hospital beds and a better distribution of medical specialities to fit regional morbidity patterns. Minimum standards are set in terms of equipment and staff, that institutions must meet for registration. In addition, hospitals are to be closed where the success rates and number of procedures are substantially under the national average. This legislation is intended to ensure better quality control and to set standards for hospital accreditation. Institutions were given time to meet the new standards so to date the effect of this legislation is not yet clear.

The hospital rationalization strategy has had mixed results including some negative outcomes. First, few hospitals were closed (as opposed to bed closures) so that no substantial savings were achieved in fixed costs. Second, bed reductions mainly

occurred in small local hospitals (where local communities were less able to exert political power to oppose these closures), and no major changes have yet been made in Budapest hospitals despite a substantial oversupply of beds. Third, a reduction in hospital beds (and not all of these were 'real' beds) was not followed by a proportionate reduction in personnel. Fourth, since hospital admissions rose, the reduction in beds did not stop increasing hospitalisation (Orosz, Ellena, & Jakab, 1998).

Social care

Nurses have to face many times with social problems related to the patient's status. When the patient does not need therapeutic care only helping in their daily activity, instead of community nurses, the local social network should be used. Also an often phenomenon in hospitals that patients are only admitted because they do not have to appropriate access to social care which increases the length of stay and in-hospital nurses' work (Zrínyi & Balogh, 2002). Social care under the socialist regime was supported through cash and non cash (fringe) benefits distributed to those with greater needs. Social problems, however, were kept hidden from the public; for example, long-term care often took place in old castles isolated from everyday life. Social care for the elderly and for physically and intellectually disabled people remained a neglected area. Further, the health sector has not considered the health needs of special groups, and social services and health care were not coordinated (Szabó, 1986). The social care was transposed to hospitals and overloaded the work of nurses. The current policy intention is to shift social and long-term care out of hospitals and into residential and nursing homes, and to support dependent people in their own homes. The number of elderly people (above the age of 60) receiving home care support was 41,200 in 1997, a decrease from around 50,000 in the early 1990s, due to budget cuts in the economic stabilization package, and despite growing numbers of older people.

Despite the many different practice areas of nurses in the Hungarian health care system they remain similar to each other. For example, the majority of nurses still work in inpatient facilities where they are exposed to a wide range of stress factors, for example: shift work, conflicts with doctors, adjusting work with family life, low societal prestige, limited career opportunities and so on. Within the public service sector nurses have to cope with difficult situations related to patients and their relatives, emotional stress and sometimes physical demands.

In the last 15 years a lot of changes have been taken place in the Hungarian health care system and especially in the field of developing nursing as a profession. The educational background of nurses lifted up at bachelor and master level and from 2006 PhD degree is also available for them. Beside the educational level upgrading, the role of nurses in the health care organizations became more complex. The lack of autonomy of nurses, the demands from the pace of fast working, the shortened time for nursing are also characteristics of these changes. The societal place of nurses in the country (low salaries, lack of other sources for support from the employees) made nursing less favourable occupation among younger generations. A meaningful part of nurses have another, second or third job in order to maintain their standard of living. It duplicates or triplicates the paid job for women mostly, although the demand in the family care is also present.

I argue that given these demands it is not always easy to remain in nursing and to find one's own definition for 'being a nurse' and staying a nurse. My aim was to identify the salient aspects of paid (job) and unpaid (home) work of hospital nurses and to examine these work effects on their well-being as a nurse.

The next chapter will describe the conceptual framework and models existing in scientific literature for studying the individual and organizational experiences of well-being of nurses.

CHAPTER II

THEORETICAL BACKGROUND

This chapter presents a review of the literature used to explore, key concepts and models which might provide for a better understanding and prediction of the in-hospital nurses' experience of well-being. The aim of this study was to identify the contribution of the main aspects of the paid (job) and unpaid (home) work of in-hospital nurses on their sense of well-being. The current literature is used as a backdrop to explore the nuances of what might aid and or hinder nurses achieving a state of well being.

Results of literature review

Work plays an important role in our life either it is a breadwinning paid employment or it is done for the household and/or for the family as unpaid employment. The involvement of the individuals in developed countries in paid and unpaid work is getting stronger (Lewis, 2001). Increasing demand can be seen in the work, especially in the paid one, although this demand can overlap the unpaid work. The study from Galinsky, Kim & Bond (2001) shows that 90% of 1000 working people experience one or more of the following events: working very fast, working very hard, not having enough time to do everything on the job. The greater intensity of the work may lead more tense in the everyday life. Work-related stress has been associated with numerous negative psychological and physical responses (Selye, 1994; Steptoe et al., 2000).

These experiences pills over into home domains. Most workers spend about one-third of their waking hours with paid employment in the workplace and do not necessarily leave the job behind when they go home (Conrad, 1998). The overlap between work and non-work (leisure) has become a popular research area, instead, interrelated and intertwined domains having reciprocal effects on each other (Coudron, 1997; Zedeck & Moiser, 1990). For instance, work-related stress combined with stress from everyday life can lead to detrimental physical and emotional outcomes because of the excess physical and mental demands placed on the human body and mind (Cooper & Cartwright, 1994).

The health care system of many European countries is in the main focus of mainstream media, if the public discussion goes on the dissatisfaction of employees. Hospitals possess a dedicated role in the European health care systems where they increasingly focus on acute care (McKee & Healy, 2002). Among more than 150.000 Hungarian

health care workers, the majority of nurses (about 43.000) still work in hospitals (Source: ETI, 2004). Although nurses' work is engaged with helping and caring for other people they have to cope with daily problems related to patient care. Nurses encounter many occupational stressors (Clegg, 2001) that have been linked to negative physical (Cheng et al., 2000) and emotional outcomes including decreased job satisfaction (Webster, 2001) and indirectly, turnover within acute-care facilities (Marsh, Beard & Adams, 1999). High turnover rate and job stress can interfere with delivery of quality of care at a time when significant shortage is emerging in the nurse labour market and when links have been demonstrated between nurse/patient ratios and patient outcomes (Aiken et al., 2002; Needleman et al., 2001).

Schneider, Brief and Guzzo (1996) have emphasized the importance of the well-being of employees who work in a service industry, because of the crucial role played by the employee in service delivery, and the influence their attitudes have on organizational outcomes such as customer satisfaction and retention. In service industries, like in health care services, radical changes are taking place which increase the work related stress (Sutherland et al., 1990). Some studies share the opinion that effects of organizational changes in work can cause reduced job satisfaction, turnover, absenteeism, somatic complaints and mental health problems (Cartwright, 1979; Price & Mueller, 1981). An USA study reported in 1997, workers with stress-related illnesses had a median absence from work of 23 days in a year, more than four times that for workers with other non-fatal occupational illnesses or injuries (Webster & Bergman, 1999). All the changes are affecting both of the individuals' professional role and their personal life. Maslach and Jackson (1982) reported that prolonged exposure to stressors in the health care environment not only impairs care delivery, but also may be instrumental in the development of negative and cynical attitudes towards patients and colleagues (Maslach & Jackson, 1982). It may cause decrease in the quality and quantity of job performance (Kickul & Posig, 2001). The impact on organizational productivity of the negative organizational consequences of employees suffering from stressful environmental causes is important especially in service industries, where management and supervisors must depend heavily on service of employees. The abilities, attitudes, and behaviours of employees can significantly affect customers' experiences and perceptions of service quality (Chebat & Kollias, 2000).

While the amount of literature addressing health and well-being in the workplace is vast, Danna and Griffin (1999) argued that it often lacks clarity, with numerous meanings and definitions attached to the terms 'health' and 'well-being'. Health and well-being can refer, on the one hand, to the actual physical health of employees, and on the other hand, can refer to their mental, psychological or emotional states. The 'subjective well-being' is a term that has been used to reflect on a person's self-described happiness and to describe one's overall experience in life (Diener, 1984). Because of various terminologies used to define health and well-being, in empirical investigations, the exact meanings of health and well-being tend to be implied through operational definition. (Danna & Griffin, 1999).

In an effort to provide some consistency to the terminology used, and as a way to help illustrate the conceptualisation of well-being and health, some researchers have created a variety of frameworks (Public Health/Epidemiological Model; Danna & Griffin, 1999).

One of these frameworks developed by Danna and Griffin (1999) shows the workplace as a complex environment where the well-being has a central role which is surrounded with antecedents and consequences of well-being.

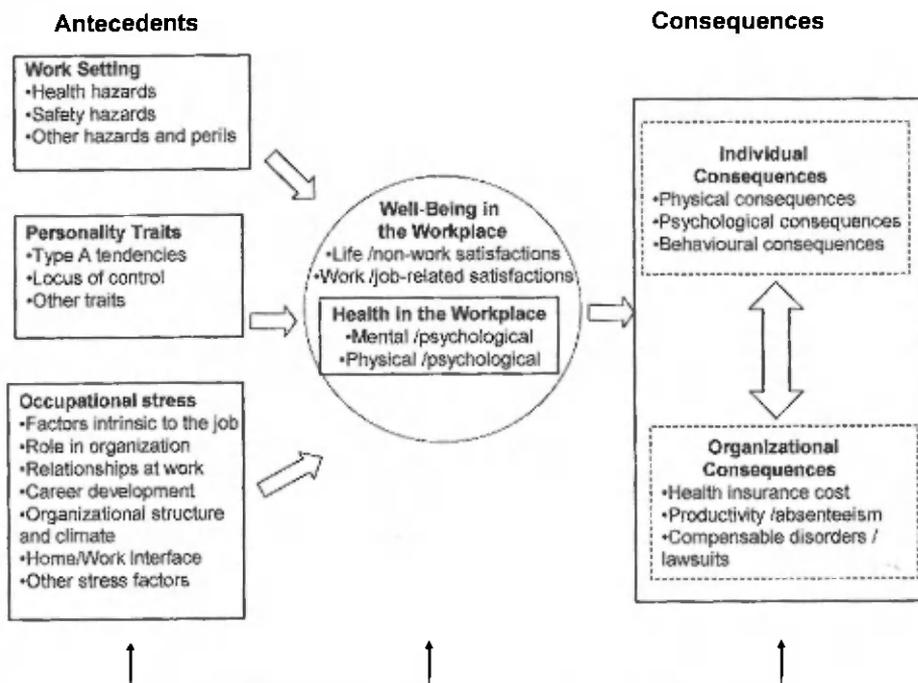


Figure 2.1 A framework for organizing and directing future theory, research, and practice regarding health and well-being in the workplace (Danna & Griffin, 1999)

Figure 2.1 illustrates that any number of antecedent factors in the work setting, individual stress and occupational stress have consequences for the well-being of employees. Occupational stress, for example, can have detrimental physical and emotional outcomes on the well-being of employees because of the excess physical and mental demands placed on the human body and mind (Cooper & Cartwright, 1994).

In the workplace it refers globally to work related satisfaction. However with regard to the term health, it encompasses both physiological and psychological symptomatology within a more medical context. As health is viewed in the framework as a sub-component of well-being, for the purpose of my research, the term well-being is used to encompass both health and well-being.

In the present study, nurses working in the hospital environment may experience a range of emotional reactions, because in delivery of services they are required to interact with patients. During this caring process the demands of the work (death, severe illness, acuity of patient care) may trigger negative emotional experiences for nurses, which in turn may impact negatively on their well-being.

For the operationalization of well-being I have chosen to use is built on the research undertaken by Bradburn and Caplovitz (1965). Well-being is used in their study as a basic dependent variable. An individual's status on the dimension of psychological well-being is seen as a result of the person's position on two independent dimensions; one of positive affect and the other of negative affect. The well-being variable specifies that a person will experience a high level of psychological well-being depending on the degree to which he has an excess of positive over negative affect and will experience a sense of low well-being if negative affect predominates over positive affect. The Affect Balance Scale used to measure the psycho-sociological well-being of people. (see Figure 2.2). Bradburn & Caplovitz's (1965) study showed that individuals varied along two dimensions – one being indicative of positive affect and the other indicative of negative affect of well-being. It was clear that these two dimensions were independent of one another, making it impossible to predict an individual's score on the positive affect dimension from any knowledge of his score on the negative affect dimension and vice versa. Both dimensions were related in there being an expectation that overall self-ratings of happiness would be commensurate with subjective well-being. The best predictor of the overall self-rating was the discrepancy between the two scores: the

greater the excess of positive over negative affect, the higher the overall rating of psychological well-being.

The use of the term also tends to encompass the ‘negative’ aspects of a person's life (Bradburn & Caplovitz, 1965). For example a person might be in chronic pain and may contemplate suicide rather than live in such agony, but their ‘well-being’, albeit negative, will still be referred to (The et al., 2000).

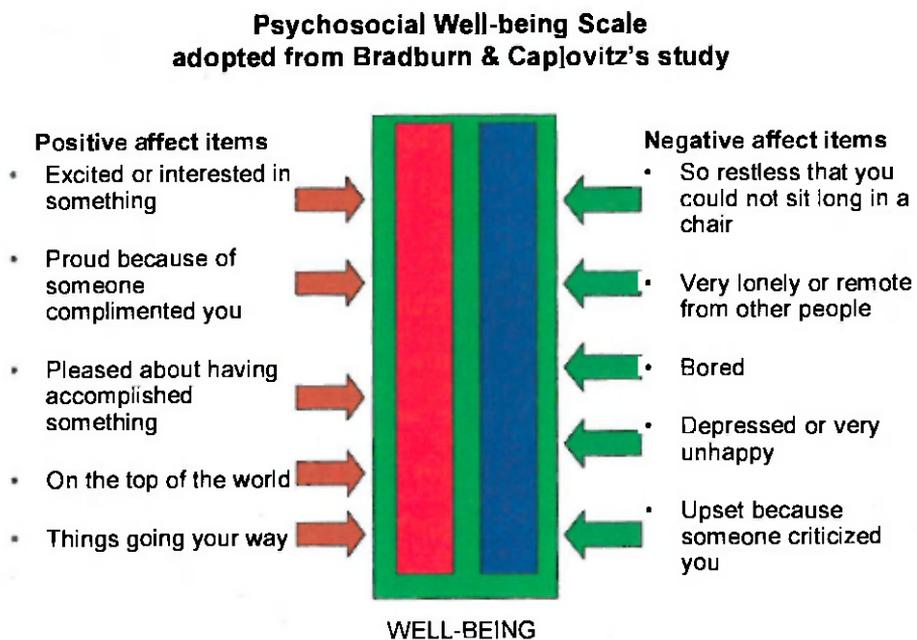


Figure 2.2 Affect Balance Scale adopted from Bradburn & Caplovitz (1965)

WORK RELATED STRESS AND HEALTH PROBLEMS

In the literature there is a tremendous amount of published material available about work related health and health problems (Simpson & Purdy, 1997; Waters, 2004; Strazdins & Bammer, 2004). Beside physical health being viewed as an important factor, mental health and psychological aspects of health, have gained momentum in studying the influential factors with regard to a ‘sense of well-being’. Danna, and Griffin (1999) argued that an employee’s experience at work, whether these are emotional, physical, mental or social experiences, also affect their health and sense of well-being.

Well-being affected by the different factors of work is often discussed in terms of stress. Psychological definitions of stress are largely consistent with the International Labour

Organization's (ILO) definition of psychosocial hazards (International Labour Organization, 1986) The definition of well-being recommended by the World Health Organization (1986, see earlier) also reflects the ILO's definition on well-being because it includes the environmental demands and opportunities as key factors in experiencing well-being. They are also consistent with the developing literature on personal risk assessment (Cox & Cox, 1993; Cox, 1993; Cox & Griffiths, 1994, 1995). In the UK the guidance of Tackling Work-related Stress of Health and Safety Executive (HSE, 2001) introduced a simple five step approach and recommended it to employer for evaluating workplaces where work-related stress might affect employees' work. The five steps are the following: '1: look for the hazards; 2: decide who might be harmed and how; 3: evaluate the risks and decide whether the existing precautions are adequate; 4: record your findings; 5: review your assessment and revise if necessary'(Mackay et al., 2004 p.95).

Conversely, how well-being is experienced might be influenced by the different roles performed at home as well as in the work place. Stress may play a central role in affecting health at work and in a person's home life. However, it can be difficult to determine this, for example, the data reported on ill-health to the Registry of the Hungarian National Health Insurance Fund is somewhat nebulous as it only includes information such as number of retirements and work days lost due to sickness, injury and disability. Such data are imprecise and not reliable in terms of the recording methods used as they do not describe trends due to changes in, for example types of illness, work patterns and societal attitudes (Cox & Cox, 1993). Because of this the data can only be used as a basis for an approximate estimate in relation to the extent or cost of occupational stress. It is even more difficult to obtain valid, reliable and standardised data on home stress. In the UK, 70% of all GP consultations are said to have a stress related component (Warne & McAndrew, 2005) which emphasizes the importance of taking into consideration the home life when speaking about well-being. The European Foundation's 1996 Working Conditions in the European Union revealed that 29% of the workers questioned believed that their work affected their health. The work-related health problems mentioned most frequently are musculoskeletal complaints (30%) and stress (28%). 23% of respondents said they had been absent from work for work-related health reasons during the previous 12 months. The average number of days' absence per worker was 4 days per year, which represents around 600 million working days lost per year across the EU (European Foundation for Working Conditions, 1996). Guppy &

Gutteridge (1991) in their study reported that 85% of occupational stress was due to heavy workload, 55% was associated with poor relationships with senior staff, and 43% was related to poor relationships with other colleagues.

There is evidence that, under some circumstances, work may have positive health benefits, promoting psychological well-being (Baruch & Barnett, 1987) and physical well-being (Repetti et al., 1989; Lewis, 2003). Likewise, unemployment and retirement from work are associated with excess risk of psychological ill health (Lennon, 1999; Cobb & Kasl, 1977; Jackson & Warr, 1984;). They may also be associated with increased risk of cardiovascular disease but the evidence here is, at best, equivocal to psychological ill health. (Kasl & Cobb, 1980; Lewis, 2003).

There are many models of stress which are useful when exploring the relationship between work related stress and the effects it can have on a person's health and well-being. One of the fundamental theories of stress is the interactional model (Cox & Cox, 1993). This focuses on the way in which a person interacts with their work environment. In particular, two interactional theories that stand out for their relevance to understanding the sense of well-being, are the 'Person-Environment Fit' model (French et al., 1982) and the Job Strain Model 'Demand-Control' (Karasek, 1979).

In the Job Strain Model Karasek draws attention to the possibility that demands of the job may not be linearly associated with worker health, but the two may combine interactively in relation to health. He initially demonstrated this theory through secondary analyses of data from United States and Sweden, finding that employees in jobs perceived to have both poor decision making abilities and high job demands were particularly likely to report poor health and low satisfaction. Later studies appeared to confirm the theory. In the job strain model (Karasek, 1979) they created work groups in the dimensions of psychosocial job demands and of job control.

In the two-dimensional model for job strain the following categories were introduced to represent the various groups people could be ascribed to (see Figure 2.3):

- passive work group represented low psychosocial job demands and low job control;
- active workgroup meant high psychosocial job demands and high job control;
- low-strain workgroup described low psychosocial job demands and high job control;

- and high-strain workgroup featured high psychosocial demands and low job control.

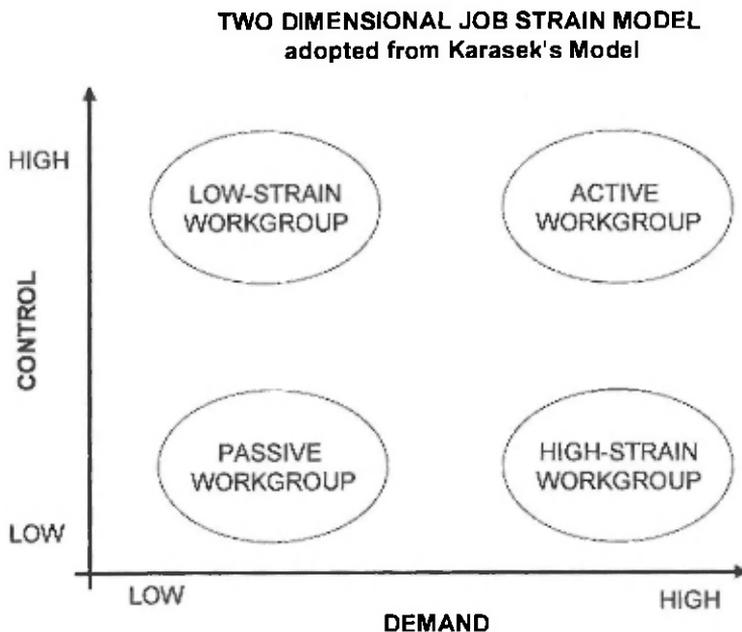


Figure 2.3 Two dimensional psychosocial job strain model adopted from Karasek

The job demands and control were measured with a job content questionnaire developed by Karasek. The job demands scale is the sum of 5 items that measure the level of psychological demands at work (excessive work, conflicting demands, insufficient time to do work, fast work pace, working hard). The job control scale is the sum of 2 subscales: skill discretion as measured by 6 items (continual learning of new things on the job, ability to develop skills, job requiring skill, task variety, work not repetitious, job requiring creativity) and decision authority measured by 3 items (freedom to make decision, choice about how to perform work, having a lot of say in relation to the job) (Karasek, 1985) (see Figure 2.4). The job strain occurs in situations where the individual is exposed to high stress circumstances and has little control over the responses. In this case the person has to deal with high demand in the work and with low control over duties which results adverse effects of psychological strain, like fatigue, anxiety, depression, risk of physical illness (Karasek, 1989).

Main Dimensions of Job Content Questionnaire adopted from Karasek's Model

- | <u>Job Demand Scale</u> | <u>Job Control Scale</u> |
|--|---|
| <ul style="list-style-type: none">- Psychological Demands<ul style="list-style-type: none">• excessive work,• conflicting demands,• insufficient time to do work,• fast work pace,• working hard | <ul style="list-style-type: none">- Skill discretion subscale<ul style="list-style-type: none">• continual learning of new things on the job,• ability to develop skills,• job requiring skill,• task variety,• work not repetitious,• job requiring creativity
- Decision authority subscale<ul style="list-style-type: none">• freedom to make decision,• choice about how to perform work,• having a lot of say on the job |

Figure 2.4 Main dimensions of job content questionnaire adopted from Karasek

Karasek examined a representative sample of Swedish working men for depression, excessive fatigue, cardiovascular disease and mortality. Those workers whose jobs were characterised by heavy workloads combined with little latitude for decision making were represented disproportionately on all these outcome variables. The lowest probabilities for illness and death were found among work groups with moderate workloads combined with high control over work conditions (Karasek, 1981). The combined effect of these two work characteristics is often described as a real interaction, but despite the strong popular appeal of this suggestion there is only weak evidence for its support (Kasl, 1989; Warr, 1990).

The model chosen for this study is the Job Strain Model (Karasek, 1979) as this appeared to be best fitted to examine how the concept of stress affected nurses in both their professional and home work.

CRITICISM OF KARASEK'S JOB STRAIN MODEL

Carayon (1993) has offered four possible explanations for the inconsistency in the evidence concerning Karasek's model.

First, the model seems to be supported in large by heterogeneous samples, but not in homogeneous samples: this may be due to the confounding effects of socio-economic

status in heterogeneous samples or the lack of sensitivity of measures used in homogeneous samples.

Second, inconsistencies may stem partly from the way job demands and decision latitude are conceptualised and measured. Karasek conceptualised decision latitude as a combination of decision authority (similar to control or autonomy) and skill discretion (similar to skill utilisation). Subsequent studies have included a wide variety of measures for decision latitude, and it is therefore possible that those that have used more focused measures are testing the effects of 'control' as opposed to the effects of 'decision latitude', which is a mixture of control and job complexity. Similarly, as far as 'demands' are concerned, the original measures focused on one main construct, 'workload', but subsequent studies have tended to employ a wider range of measures. (Tyler, Carroll & Cunningham, 1991; Munro, Rodwell & Harding, 1998) Measures have varied considerably and are often far removed from Karasek's original formulation.

Third, much of the research into this model relies on self-report measures of both dependent and independent variables; 'job satisfaction' is an example where there is content overlap between the measures. A related issue concerns the predominance of cross-sectional rather than longitudinal data, limiting interpretations as to cause and effect.

Fourth, Carayon suggests there may be methodological and statistical reasons for the failure to find interactive effects. However, whether perceived job demands and decision latitude combine additively or through a true interaction, it is clear from Karasek's work that they are important factors determining the effects of work on employees' health and well-being.

Tests of these models have been carried out several times to prove the usefulness of the models under different circumstances. Some of the main findings are included in the following:

Winnubst & Schabracq (1996) focusing on jobs i.e., broad occupational categories, found that high demands, low control and low support (high social isolation) were associated with an elevated cardiovascular risk.

Other criticisms have been levelled against Karasek's model. It was claimed that the model was too simple and ignores the moderating effect of social support on the main variables. Karasek and Theorell (1990) moved beyond a medical/technical approach to occupational health and safety and expanded the Job Strain Model with social support factor. Johnson (1989) and Johnson et al. (1991) applied Karasek's model by adding a third dimension, resulting in the "Demand-Control-Support" (DCS) model. The dimension "social support" refers to overall levels of helpful social interaction available within the work environment from both co-workers and supervisors. Junghanns, Ullsperger & Ertel, (1999) used the "Demand-Control-Support" model to specific conditions of work and confirmed that job characteristics that involved decision latitude, psychological demands and social support, affect health significantly. They found that white-collar workers in "high-strain" work situations had the highest level of health complaints. Working situations characterised as highly demanding with low decision latitude and low social support predispose workers to experience health problems, especially musculoskeletal (shoulder and neck pain) and psychosomatic complaints (exhaustion, inner restlessness) (Ertel et al., 1997; Junghanns et al., 1999).

THE CONCEPT OF DEMAND-CONTROL-SUPPORT MODEL

"Social support" seems to play an essential role in the management of stress at work. It serves as a buffer against possible adverse health affects of excessive psychological demands (Theorell, 1997). The work related support scale was constructed by using two scales: support from co-workers (they take a personal interest in me, are friendly, helpful in getting the job done, and competent in doing work) and the support from supervisors (concerned about the welfare of those under her, pays attention, helpful in getting the job done, successful in getting people to work together).

Johnson et al (1991) distinguish between four types of low social support work situations and four high social support situations. This model became known as the iso-strain model because it posits that the most hazardous work occurs when high job strain is combined with a low level of supportive social interaction at work (see Figure 2.5).

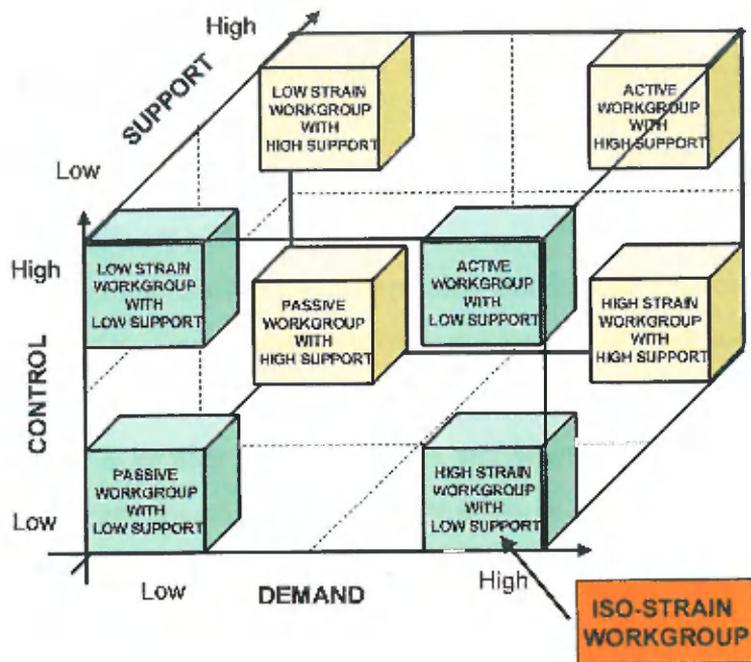


Figure 2.5 Iso-strain model adopted from Johnson et al (1991)

The significance of these psychosocial work exposure models lies in their capacity to identify hazardous (eg. high strain and iso-strain workgroups) work settings and health enhancing (e.g. active workgroup) work environments (Benjamin et al., 1998).

The expanded “Demand-Control-Support” model has also been criticised for its failure to consider individual differences in susceptibility and coping potential. The relationship between the dimensions of the model and the outcome measures may depend upon workers’ individual characteristics (de Rijk et al., 1998). For instance, “disturbed relaxation ability” (also known as “inability to relax/work obsession”) was found to be a valid predictor of increased sympathetic activity and delayed recovery of cardiovascular parameters. This reflects the experience of intensity of work and job-related exhaustion (Richter & Schmidt, 1988; Richter, Rudolph & Schmidt, 1995).

“Disturbed relaxation ability” relates to excessive work involvement, characterised by an extreme degree of work effort and by work “carry-over” into domestic life (to the extent of affecting sleep, relaxation and leisure, and neglecting personal needs). While a certain degree of work involvement can be considered “healthy” and stimulating, in its extreme form involvement can become ‘work obsession’ and lead to the inability to relax after work, with the risk of negative health effects (Rotheiler et al., 1997). “Disturbed relaxation ability” can moderate the health effects of the work-situation

generated by the “Demand-Control-Support” model. Junghanns, Ullsperger & Ertel, (1999) found that high psychological demands and a high level of disturbed relaxation ability predispose workers to ill-health.

WELL-BEING AND GENDER DIFFERENCES

However, even though these approaches have expanded conceptual frameworks and highlighted the importance of the social and organizational aspects of work with respect to health, it has tended to focus on jobs in the male dominated manufacturing sector. It is open to question whether it applies to other sectors and whether it also reflects the experiences of female workers. In observing the labour force Messing et al. (1993, 1995) tried to distinguish between the gender differences when considering the impact of the work environment on a person’s health and well-being.

There are some of literature (Hall, 1992; Hunt & Annandale, 1993; Lewis, 2001) that has focused on woman’s work and home responsibilities. Included in this research are issues such as ways in which women’s health is promoted and threatened by work outside the home and the nature of ‘invisible work’ that a woman carries out in the home. This work is described as productive and reproductive, contributing to daily and generational reproduction (Amstrong & Amstrong, 1984, 1990). In modern society, women’s lives in particular have undergone profound changes. The female participation in the labour force is increasing rapidly in most countries (Carlsen & Elm Larsen, 1993) but in spite of these changes the traditional gender role patterns seem to persist with regard to home and family responsibilities (Kahn, 1991; Hall, 1992).

Work in and of itself is potentially of great value to individuals, families, and societies. For individuals, it may be a source of pride, self-fulfilment, and social contacts and it may enhance time structure; for families and societies it is a mechanism for providing food, shelter, personal care and other goods and services. Among the negative aspects, women have to deal with responsibilities in various settings, including their households, workplaces, and communities (Gjerdingen et al., 2000). In addition to job responsibilities, the family and household are also sources of continuous work responsibility, particularly when children are present in the home. On average, women invest considerably more time into the work of the family and household than do men, which is often reported to be double or more than of men’s (Kahn, 1991; Robinson & Godbey, 1997).

Barnett and Marshall (1991) have thought that the demand control model tends to minimize interpersonal aspects of the work setting and rewards that may be important to workers in different types of occupations, for example the opportunity to help others. They do not include issues that may have an effect on women's health such as discrimination and sexual harassment (Doyal, 1994), nor do they incorporate the effects of domestic responsibilities, which generally consume more time for women (Hall, 1989).

Conflict between work and home, and problems associated with domestic responsibilities, are additional sources for stress that may augment risk of diminished well-being in vulnerable individuals (Allen et al., 2000).

Few prospective studies based on the DCS model being used with working women found that high strain at work increased the risk of cardiovascular disease (LaCroix, 1984; Alfredson, Spetz & Theorell, 1985) and increased the risk of cerebro-vascular accident (stroke) (Alfredson, Spetz & Theorell, 1985), problem drinking (Alfredson, Spetz & Theorell, 1985), and elevated blood pressure (Chapman et al., 1990).

WELL-BEING RELATED TO PAID AND UNPAID WORK

Evidence suggests that work stress can 'spill over' to home life (Bacharach, Bamberger & Conley, 1991; Burke, 1986), and vice versa (Quick et al., 1992), although effects may vary considerably (Kanter, 1977). The erroneous belief that work and non-work activities are unrelated in their psychological and physiological impact on health has been described as the 'myth of separate worlds' (Kanter, 1977). While it is nonsensical to attempt an exact determination of the relative importance of work and non-work stressors, because they are not independent in their effects, it is sensible to explore their interaction and the carry-over from one domain to the other. Although such interaction effects exist, they are not always obvious. For example when an acute stressful life event occurs in work or outside of work (such as the death of a loved one, or a serious injury), the initial impact of carry-over effects is often readily obvious to family, friends and colleagues or co-workers. However, when the effects of life stressors are more subtle and long lasting (for example demands of an ageing parent), carry-over effects are less frequently recognised and can be underestimated. Similarly, while the experience of chronic stress at work may exert deleterious effects on family relationships, these may sometimes go undetected (Gutek, Repetti & Silver, 1988; Repetti, 1987; Repetti & Crosby, 1984; Voydanoff & Kelly, 1984).

A survey by the Canadian Mental Health Association (1984) found that 56% of respondents felt 'some' or 'a great deal of' interference between their jobs and home lives. Of particular concern were the 'amount of time that the job demanded' and the 'irregularity of working hours' (including shift work). The interference affected family routines and events, child rearing and household responsibilities, made employees moody at home and conflicted with leisure activities and social life.

WELL-BEING AND NURSING

In-hospital nurses' work is one of the most stressful occupation which has been identified as most likely to experience the negative consequences of occupational stress such as physical and psychological ill-health (Tyler, Carroll, & Cunningham, 1991). Duquette, Sandhu, & Beaudett (1994) found after meta-analyzing 300 studies, that nursing is a stressful occupation. Despite of these above mentioned statements locating nurses' work in a wider labour market, Bussing (1988) and, Karasek and Theorell (1990) propose that nursing is a low strain occupation which is based on the use of Job Strain Model (Karasek, 1979).

However there is little empirical research in nursing which uses the expansion of Job Strain Model to this assertion.

Nursing is still a largely female dominated profession all over the world (Walters, 1996). The role of women in society carries a lot of deterministic factors, like child bearing, caring for the children, in many cases for other family members and for general maintenance of the household (keeping house clean, washing, doing the shopping) (Haworth, 2005). However in addition to these more traditional roles of women socio-economic changes have also demanded the participation of women in the work force (Gjerdingen, et al., 2000).

In Hungary, over the past 50 years, changes in family life have paralleled changes in the economy. The dual earner family has displaced the traditional family of a male breadwinner and a female homemaker. In view of this the invisible (domestic) work which impacts more on the female member of the family, may become more burdensome. This phenomenon was studied among Hungarian female medical doctors who had difficulties with coping the housewife and the professional roles in their active life period (Györfy & Ádám, 2003). A Canadian study states that: even when both mothers and fathers (aged 25 to 44 years) work full-time, mothers spend nearly two

hours more per day doing housework. Looking specifically at child care, fathers in two-parent families who are employed full-time spend on average 0.9 hours per day looking after their children, while mothers working full-time in the paid labour force spend 1.3 hours per day providing child care (Vanier Institute of the Family, 1997).

Studies exploring work related stress among nurses show that nurses are reporting higher level of physical stress compared with the general population of working women and there is substantial variability depending on which part of the health system the nurse is working in. Inpatient and operating room nurses were more likely to be in high-strain jobs (Colditz, 1997). Other nurses working in an outpatient health care delivery system or in nursing education were more likely to be in low-strain jobs or active jobs defined by Karasek (see earlier) (Colditz, 1997). In a Canadian study Walters et al. (1995a, 1995b, 1996) measured the notion of a 'sense of well-being' among woman who were combining the activities of paid and unpaid life. Initially they examined only female nurses (Walters, 1993, 1995a) but in subsequent studies they examined and compared both genders (Walters, 1995b, 1996, 1997). Their results showed some commonalities in paid and unpaid work according to gender differences. Nurses have been the foci of other job satisfaction surveys where the impact of the perceived work environment, coping and social support have been explored (Tumulty, 1994; Tyler & Ellison, 1994; Tyler & Cushway, 1995; Wheeler & Riding, 1994). Other studies (e.g. Jones & Johnston, 2000) have examined the impact of the work environment in the health care sector on nurses' mental health problems and on their coping strategies and the effects these have on patient outcomes.

At an international level numerous studies (Watson, 2002; Hall, 2004) have been carried out examining the nurses' role, their position in society and what factors contribute towards improving nurses' well-being and health (Nurses' Health Survey, USA). In the United Kingdom such exploration has been part of the development of the Health and Safety Executive Guidance (UK). With few exceptions Hungarian research has not concerned itself with the well-being of those working in the health care system. A recent study (Pikó, 1999) did examine the workload of Hungarian nurses, and how it affected their occupational health, but the combined effects of stress encountered in the work place and at home and the effect this might have on their well-being has not yet been examined. As nurses in Hungary might share commonalities with other nurses working in the European Union it is important to explore how they experience a sense

of well-being and whether or not this is compromised by the occupational stress and home stress that they might simultaneously encounter.

It is the intention of this study to examine the cumulative effects of paid (job) and unpaid (home) stress on nurses' well-being in a cohort of Hungarian hospital nurses. The theoretical background of this study draws on the framework of interactional stress theorists, Karasek (1979) and Johnson (1989), using their Demand-Control-Support model as basis for investigation. Bradburn and Caplovitz's (1965) work is also used to describe the concept of well-being.

In the first instant the DCS will be used to examine the impact of work related stress on a nurses' sense of well-being. This will be followed by using the same tool with different items to explore how stress, relating to home work, might affect a nurses' sense of well-being. The data from each part of this survey will then be analysed, using statistical regression, to examine what imbalance there is between them.

The present study could contribute to the development of workplace best practices, aimed at improving the health and well-being of nurses. It could improve knowledge about the major work-related factors affecting the health and well-being of nurses and provide employers and decision-makers with data to develop evidence-based workplace health strategies in the Hungarian context. An additional role of the present study is to adapt the DCS model for the unpaid sphere of the working life which may interact with paid one.

METHODOLOGY

This chapter explores the major philosophical, epistemological and methodological issues involved in the research project. An overview of the research design is presented which includes: a discussion of the methods used, sampling, data analysis, and the main ethical issues associated in undertaking the research. The aim of the present study was to explore the lived experiences of Hungarian nurses' working in hospital settings. The dimensions of the DCS model were used to explore how the lived experiences of paid work (job) and unpaid work (home) impact on nurses' well-being.

The DCS model was originally developed through empirical studies that used a quantitative approach. However it is possible to argue that both quantitative and qualitative methodologies could be brought to bear in using the DCS model in different research contexts. Although in this study a largely quantitative methodology was employed, a mixed method approach to the research design (Creswell et al., 2003; Tashakkori & Teddlie, 2003) was used. This consisted of two phases occurring sequentially. The first phase of the study used a quantitative approach (survey) to identify which factors influenced the well-being of nurses working in hospital settings; the second phase used a qualitative approach (semi-structured interviews) to triangulate and validate the interpretation of the survey results.

METHODOLOGICAL BACKGROUND

Quantitative and qualitative research approaches have either been described as being diametrically opposed or situated on a continuum of research methodologies. Both quantitative and qualitative researchers share a desire to ensure data collection and categorization processes are transparent (Neuman, 2003). However researchers using either of these approaches do so from different positions in regard to distinct assumptions relating to ontology (the nature of reality) and epistemology (the relationship between the known and the knower). The assumptions of each approach have important consequences affecting the choice of methods and strategies for collecting and analysing data (Brannen, 1992).

Quantitative research is associated with the paradigm of positivism of the scientific method and more recently, post-positivism. Positivists take a deterministic position, and believe in the existence of a single objective reality that needs to be discovered. This means that they believe that social reality does not occur randomly, and people are affected by external events. The post-positivism, while still holding the same basic belief system, was developed in response to the criticisms of the earlier paradigm. Positivism is the oldest, and for the last four centuries has been the most popular, philosophical approach in the physical and social sciences (Denzin & Lincoln, 1994). According to Neuman (2003) since the middle of the twentieth century it has been the model of choice for social research in most Western countries. Using this type of methodology allows for the testing of hypotheses, the prediction of behaviour, and the identification of probable causes of that behaviour. To meet these goals, the data are collected in a structured, objective way, thus reducing to possibility of subjective (researcher) bias which may impact on the object under investigation. Once the data has been collected it is analysed by using statistical techniques (Denzin & Lincoln, 1994; Gliner & Morgan, 2000; Neuman, 2003).

The second major paradigm, interpretivism, or its synonyms constructivism or naturalism (Gliner & Morgan, 2000; Lincoln & Guba, 1985), and humanism, (Bernard, 2000; Neuman, 2003) is in keeping with the qualitative approach to research. The researchers located in the constructivist or interpretivist paradigm, believe that multiple realities exist (Neuman, 2003). Reality is believed to be what people perceive it to be, with social life being created as people internally experience and interpret it (Neuman, 2003).

Qualitative researchers, therefore, seek to describe and understand a person's subjective sense of reality through observing and communicating with people in their natural environments. Where quantitative researchers aim to minimise the influence of human contact within the research process, qualitative researchers emphasize the importance of the closer physical and emotional proximity to the people being studied (Gliner & Morgan, 2000). A qualitative approach to research is, therefore ideographic and inductive, and the importance of values to the research process is emphasised (Guba & Lincoln, 1994).

Qualitative data can be generated at any stage of the interaction and may take the form of written or spoken words, phrases or pictures, as possible ways that people can describe in detail their perceptions of a situation. Analysis of the data occurs through categorising it into concepts and themes which are then interpreted by being linked to theory (Ragin, 1994).

A number of researchers (Denzin & Lincoln, 2000; Tinsley & Brown, 2000; Tashakkori & Teddlie, 2003; Johnson & Turner, 2003) have suggested that quantitative and qualitative approaches can be complimentary and in recent years the mixing of research methodology has grown in popularity. Denzin and Lincoln (2000, p.4.), for instance, claimed that the strategy of combining methods 'adds rigour, breadth and depth to the investigation'. Tinsley and Brown (2000, p. 57) maintained that the use of multiple methods reflects 'the progressive spirit' of post-positivism in social science. Mixed methods are often used in applied settings to help understand complex social phenomena. They provide a variety of data sources and analyses to better understand complex realities and thus are able to answer questions that quantitative or qualitative methodologies used in isolation are unable to address (Tashakkori & Teddlie, 2003). Mixed methods also offset some of the disadvantages of using a single method (Johnson & Turner, 2003), for example while interviews can give a greater depth, postal surveys can give greater breadth.

The use of mixed methods has been proposed as the third methodological movement, however researchers have recently acknowledged that the multiple paradigms associated with mixed methods result in confusion existing with regard to meaningful terminology (Teddlie & Tashakkori, 2003). For example, Burgess (1982) used the term multiple research strategies to describe the use of diverse methods in tackling a research problem, while the strategy of triangulation (Denzin, 1978) is the older and more widely used term. Although the method of triangulation is the term given to the strategy for combining different methods in relation to the research problem (Neuman, 2003) it is further complicated by the number of forms of triangulation that exist. Morse (2003) continues to use the term multi-method, while more recently, the term mixed methods research, has been proposed for mixed method and mixed model research (Teddlie & Tashakkori, 2003).

Researchers also hold different positions about how the paradigms are used in mixed methods research (Teddlie & Tashakkori, 2003). Some researchers (Smith & Heshsius, 1986) oppose the use of mixed methods research, ascribing to the view that the paradigms are irreconcilably different and therefore mixing them is unacceptable (Smith & Heshsius, 1986). In contrast to this belief others (Patton, 2002; Morse, 2003) suggest that as the methods and paradigms are independent of one another, the methods can be separated from their epistemological foundation. Morse (2003) believes that as each method complements the other, mixed methods designs are acceptable, providing each method is kept separate to allow the strengths of each to be realised. Green & Caracelli (2003) believe that combining multiple diverse perspectives is important, but adopt a dialectical stance in that one paradigm is not selected over another. It is assumed that all paradigms have something to offer and their use contributes to greater understanding of the phenomenon being studied. Creswell et al, (2003) similarly believe that multiple paradigms serve as the foundation for mixed methods research. Other researchers (Howe, 1988; Tashakkori & Tedille, 2003) propose that pragmatism is the best paradigm for justifying the use of mixed methods research as it supports the use of both quantitative and qualitative methods in the same research programme. Pragmatism is a practical philosophy that avoids the use of the metaphysical concepts such as 'truth' and 'reality', the choice of method is guided by the research question.

Whilst I am not claiming to locate this study within a pragmatic paradigm, the appeal of using a mixed method approach was the belief that the chosen methods would complement each other in achieving the research aims, and ensuring external validity of the data analysis.

In the Hungarian social and medical research context the quantitative methods were and are dominant. For many years the only way of being accepted scientifically in the Hungarian research field related to health care was to use quantitative methods in researches. This face has not been changed recently. Therefore it was interesting to see how the mixed method of research design gains more places in approaching complex phenomenon like well-being.

RESEARCH DESIGN

The present study used a sequential, two phase, mixed methods design (Creswell et al., 2003; Tashakkori & Teddlie, 2003). This is presented visually in Figure 3.1 and is an adaptation of the visual presentation of mixed methods designs by Creswell et al. (2003).

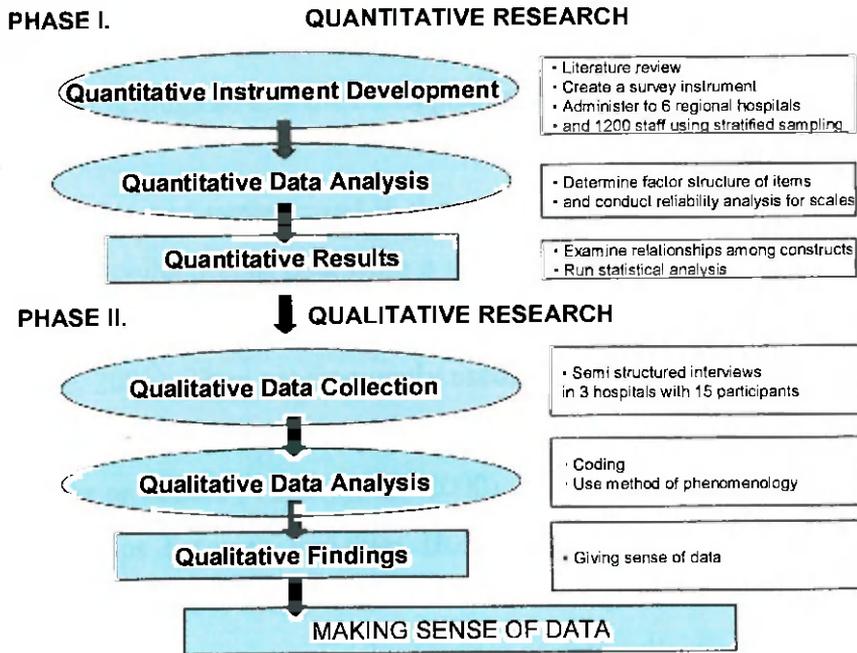


Figure 3.1 Overview of the Mixed Methods Research Design in the present research

Research studies that collect data via surveys are a widely used research method developed within the positivist approach to science (Neuman, 2003) and a useful element of research projects using mixed methods (Visser, Krosnick & Lavrakas, 2000). In the mixed method research design the results from one method can help develop or inform other methods (Greene, Caracelli & Graham, 1989). Based on Creswell's work on research design, one of the three general strategies within mixed method design is a sequential procedure where researchers seek to elaborate on or expand the findings of one method with another method. This may involve beginning with a quantitative method on a large sample in which theories or concepts are tested. This can then be followed up with a qualitative method involving further exploration of the initial results with a number of small groups and/or individuals (Creswell, 2003). In this project the procedure was divided into two phase (as shown above). Phase I. involved undertaking a literature review which would form the basis for the survey; the translation of the used DCS model into the Hungarian context; and the collection and analysis of preliminary

data. In the second phase the flow of the qualitative data collection is carried out through interviews; and main results of analysis are presented.

PHASE I.

Using a quantitative method in the first phase of the study allowed me to test the modified conceptual model by Bradburn and Caplovitz (1965), Karasek (1979) and Johnson (1989). By using a method of survey analysis suitable for large-scale investigation, I was provided with the opportunity to access a larger sample of nurses working in hospital settings so that the conceptual model could also be tested.

The most popular form of survey used is the cross-sectional design. A cross-sectional survey involves the collection of data from a sample drawn from a specified population at a specific point in time and is particularly useful for exploratory and descriptive purposes (Babbie, 2001). They are frequently used, for example, to assess the frequency with which people perform certain behaviours, or assess the number of people holding particular attitudes or beliefs (Visser et al., 2000). They also provide the opportunity to establish relationships between variables (Reis & Judd, 2000). However, there are limitations of cross-sectional designs, as well as reliability and validity issues that must be considered when using a survey for the purpose of data collection.

The following discussion examines these issues and discusses the use of cross-sectional survey as a method of data collection in relation to this particular research study. Some of these issues had to be resolved before the survey questionnaire used in the study was administered. Initially this involved the logistical administration of the survey and was followed by the need to identify persons suitable and willing to participate in the research process.

SAMPLE

Initially the hospitals were selected from the Hungarian National Registry of Hospitals. Selection criteria demanded that the hospital was a teaching hospital connected to Pécs University, that the hospital took a leading position in inpatient care in the given area, and there was representation of the country side regions in Hungary via the regional county teaching hospitals.

Participants came from Hungarian health care institutions located in six different geographical locations across the country. The sample was representative of nurses

working at the bedside in district hospitals and in regional county teaching hospitals. Although the hospitals represented both geographical parts of Hungary where some economical differences are detectable, there were no significant differences in the main job and home characteristics of the nursing sample selected from the six regions.

The inclusion criteria for the sample were: being a female nurse, employed full-time in an inpatient setting. As already mentioned in the second chapter, nursing is still a female dominated job in Hungary, too where the impact of women well-being can be studied very well. The majority of nurses are employed in hospitals (about 40.000 in Hungary) where the interference of real job and home exposure can be seen. In order to obtain reliable data with regard to nurses' well-being, in terms of their professional and personal lives, I only included those nurses who had a minimum of one years experience working as a nurse in an inpatient setting and thus who would have a familiarity with their work environment. According to a report by the institutions (2003), this represents approximately 1305 nurses. The female nurses were all registered as a nurse with the Hungarian National Registry of Health Care Workers, employed in full-time, appointed to the position (not contracted) and not working after retirement (active workers).

In order to undertake a cross-sectional survey questionnaires were used. The questionnaire was constructed using Hungarian language and from reviewing the available literature. In the later phase the questionnaire was discussed with my director of PhD studies and other English colleagues and translated into English as all questions used in the questionnaire had to be discussed in detail in order to avoid misinterpretation of terms. Once this process had been completed the survey was translated back into Hungarian and ready to be piloted

Initially, it was necessary to test if the developed questionnaire was valid and reliable. A small group of nurses (38 nurses), each with several years of experience, were asked to fill in the pilot questionnaire and give their comments with regard to its user friendliness. The pre-testing provided constructive feed-back that served to ensure that items on the questionnaire were easy to read and understand, free from ambiguity and bias, and the terminology was relevant to staff members. Whilst the majority of the questions seemed to be relevant to the aims of the study it was necessary to modify some of the questions in order for potential respondents to gain a better understanding

of what was being asked. After the pre-testing a modified questionnaire was administered to 1300 nurses working in different clinical settings, located in six different geographical locations across Hungary.

In order to reach all the nurses who wish to participate in the study 30 research assistants working in the given hospital were identified to administer the survey (Thomas, 1995). They were selected with the help of nursing directors and head nurses. The criteria for becoming a research assistant were that they had to have successfully completed a BSc degree and they must not be working in the department where the surveys were to be administered. I personally took responsibility for training the research assistants and the short training programme comprised of the legal, confidential and ethical questions of research, the aim of the study and the method of data collection. Once they had completed the training and I was satisfied that they were familiar with the questionnaire approval was granted by myself (via a signature) for them to collect the information. Administration of survey was done in private, in a room provided by the hospital, outside of the nurses' daily work. The data collection lasted from the beginning of August to the end of October 2003.

As participants were given the questionnaire to read and complete themselves this gave opportunity to enhanced clarity and understanding of the questions (Moser & Kalton, 2001). Respondents could also take their time in completing the questionnaire and if necessary seek advice from the research assistants at any time. The research assistants were also able to remind the respondents, who have decided to participate, not to forget to complete and return the questionnaire in the given time frame.

There were, nevertheless, a number of concerns associated with using a research assistant administered questionnaire. The main concern was gaining an adequate response rate (Fowler, 2002). While important to gain an appropriate response rate, the reality for this type of survey is that the response rate is often poor. In the main this is due to the impersonal nature of this kind of survey, there being no opportunity for the participants to build rapport with the researcher (Gliner & Morgan, 2000).

A secondary consequence of this was the way in which participants interpret the questions or the instrument (Bernard, 2000). An attempt to overcome this difficulty was made by using research assistants to offer a fuller explanation of the instrument should

the participants have difficulty in responding to the questions. However they had very little control over how much they were used to offer such assistance. While response rate is important, in that the people who do respond are others from those who do not, simply having a low response rate does not necessarily mean that a survey suffers from a large amount of non-response error (Moser & Kalton, 2001). Nevertheless, every effort needed to be made to increase the response rate to maximise the confidence in the results of the study (Mangione, 1998).

Several strategies were adapted to increase the response rate (Bernard, 2000; Gliner & Morgan, 2000; Moser & Kalton, 2001; Neuman, 2000). Support for the study was gained via the hospital and department management in the chosen hospitals. The management informed the nursing staff of the research either by letter or through the intranet and, in addition to this, allowed either the research assistants or myself to attend meetings and share information about the research. The research assistants were selected from the given hospitals and gave a commitment to their role in the research via written consent. They helped with their personal presence in the research field and their commitment to increase the response rate of nurses.

The way in which the questionnaire is presented can also contribute to higher response rates (Bernard, 2000). The questionnaire was presented in the form of a booklet. As the initial impression of the booklet could either motivate or discourage people from filling it out (Salant & Diliman, 1994), it was important to give attention to detail by ensuring that the booklet was presented in a professional format but that it was also user-friendly. Feed-back from the pilot study informed the questionnaire designed, for example attention was given to physical characteristics such as an aesthetically pleasing front cover, an interesting title, a professional layout, easy to follow directions, a well balanced format of questions, and a standard font. The front page of the booklet offered brief information about the research project and the use of the instrument.

The questionnaire was rather long, 100 questions set out over 20 pages. (see Appendix A) There is little evidence to support a view that there is a limit to the length of a questionnaire which will achieve a satisfactory response rate (Moser & Kalton, 2001). Both short and long surveys have good response rates and there seems to be no absolute desired length (Thomas, 1999). Despite it being a lengthy questionnaire the response rate was 61%.

DATA ANALYTIC TECHNIQUES

The Faculty of Health Science Statistical Service, University of Pécs, provided me with administrative assistance in the inputting of data. SPSS 11.0 was used for the statistical analysis, with a number of techniques being used for scale and model testing. Exploratory factor analysis was used to determine, in a concise and interpretable form, the underlying influences on the set of observed variables (Basilevsky, 1994; Hair, Anderson, Tatham & Black, 1995). Information about the nature of these variables was gained and quantified by examining the extent to which each observed variable was associated with an underlying dimension, or factor (Tabachnick & Fidell, 2001). The factors thus described the data through a reduced number of concepts that replaced the original set of variables and were used for further statistical analysis (Hair et al., 1995). (see Chapter IV.)

During the data analysis process two statistical measures were used: descriptive statistics and model testing. Descriptive statistics were performed to provide the frequency of data in relation to each of the constructs and the correlations amongst them. Model testing techniques were used when the scales were created, and the data was analysed. Multiple linear and logistic regression analysis has been applied separately. The results of the linear regression have been verified by logistic regression to establish the Beta coefficients. The linear regression model would show only the significance of the given factors step by step but the logistic regression would give the power of the different significant factors compared to each other.

The first phase of analysis examined the crude (unadjusted) means for each of the measures (positive well-being, negative well-being, health problems, and dimensions of paid and unpaid work). To determine the extent to which the nurses' well-being and health problems are correlated with the dimensions of paid and unpaid work, the independent sample T-test was used. With regard to the nurses' sample, the mean dependent variable scores were compared across the 4 job-strain groups. One-way random effects analysis of variance (ANOVA) was used to compare the group means for the normal distribution of dependent measures. Later the groups were split according to high and low support measure better establish the importance of social support, this being in keeping with the Karasek's model (Karasek, 1979).

The distribution of other controlled variables (age, marital status, presence of chronic illness), were also compared across the job-strain and support categories. Age-adjusted means (using a direct standardization method) were analysed for the total sample and each job strain category. Percentages were calculated for dichotomous variables.

RELIABILITY AND VALIDITY

Most measurement procedures are subject to error (John & Benet Matinez, 2000), and one criterion for estimating error is through a measure of reliability. Reliability means consistency or stability of a measure or method, so that the numerical results do not change because of the characteristics of the measurement process or measurement instrument (Neuman, 2003). Reliability and error are reciprocally related, so that the larger the reliability, the smaller the error (Punch, 1998).

One form of testing reliability evaluates the internal consistency of a measure. This type of reliability is called equivalence reliability, and it was used in the present study to evaluate the internal consistency of the measures (Neuman, 2003; Punch, 1998). Because theoretical concepts cannot be observed directly or indirectly, they are operationalized, and presented by participants' responses to multiple items on a questionnaire. These responses are then used to help infer the latent construct of interest. Thus, a measure of internal consistency will provide the extent to which the items were related to, and consistent with each other (Punch, 1998). One of the most popular forms of measuring internal consistency, and the one chosen for this study, was the statistical measure, Cronbach's co-efficient alpha. This technique requires only one administration of the instrument to provide an estimation of internal consistency thus giving reliability (Pallant, 2001). (see appendix)

The level of standardisation in a questionnaire enhances reliability in a number of ways. All participants are required to answer the same questions that are presented in a fixed response format (Thomas, 1999). Using closed questions that are clear and unambiguous is assumed to be a quick and easy way of collecting data, and tends to reduce the participants' own unreliability (Babbie, 2000). Methods such as pre-testing have also been recommended to increase reliability (Babbie, 2001; Neuman, 2003).

In the present study a draft questionnaire was pre-tested by some of the nurses who each had several years experience working as a nurse in a hospital setting. Emphasis, in this

part of the process, was given to establishing if the questions were clear and simple, if they were easy to read and understand, were they free from ambiguity and bias, and most importantly, were they relevant to staff members working in the hospitals. The disadvantage of standardisation, however, is reduced validity.

VALIDITY

Measurement of validity means the extent to which an instrument measures what it is claiming to measure and an indicator is valid to the extent that it empirically represents the theoretical concept it is supposed to measure (Punch, 1998). The better fit between the conceptual and operational definitions, the greater the validity (Neuman, 2003). In questionnaires because the choices of responding to closed questions on a measure are limited and take on a rigid structure for example, strongly agree, agree, disagree, are somewhat inflexible and unnatural. While the rigid structure is necessary for numerical data collection and calculation, participants are prevented from responding freely or in-depth and the rigid categorisation prevents their perceptions from being fully assessed (Thomas, 1999). Consequently, while a measure may be reliable, it may not necessarily be valid. Survey research, according to Babbie (2001) tends to be weak on validity, but strong on reliability. While there is no foolproof procedure to establish validity, one validation strategy used in this study to increase ecological validity involved using multi method research. The semi-structured interviews used with the focus groups allowed the researcher to explore in more depth the experiences of nurses working in hospitals and how this and other environmental factors from everyday life impacted on their well-being.

PHASE II.

The qualitative approach used in the second phase of the mixed methods research design enabled me to collect descriptions of the phenomena from a small sample of staff. In turn, this allowed better understanding of the quantitative results from the subjective standpoint of the larger sample.

Semi structured interviews were used for the qualitative part of the present study. Based on the belief that people interpret the facts as they see them, and their reality is based on their perceptions of a situation, the aim was to understand the participants' experiences of social reality through their personal interpretations of it (Minichiello, Aroni, Timewell & Alexander, 1995).

As the tool to access a person's social reality during interviewing is through language, the researcher of the present study relied on the verbal accounts of the participants' interpretations and meanings of their social realities. A semi-structured approach was used for the interviewing, with the interviewer being the instrument for data collection (Neuman, 2003). This approach means that the researcher uses broad questions pertinent to the goals of the study to guide the interview. King (1996) asserted that the interviewer has a responsibility to work with the other person to shape the interview, thus acknowledging that some level of control by the interviewer is inevitable. For example each interview was controlled to a certain extent by the interviewer asking a number of open-ended questions for the purpose of addressing the goals of the research study. The questions used were developed from the survey data analysis. The mode of asking questions in a semi-structured approach, however, follows a flexible process which allows the researcher the freedom to ask additional questions (Parahoo, 1997). In the interviews it is the researcher's responsibility to create a comfortable, interpersonal environment that encourages the respondent to contribute to the interview (King, 1996). To achieve this environment, the interviewer built a responsive rapport with the respondents.

SAMPLE

In the qualitative phase of the study it was necessary to select a small proportion of hospitals from the larger sample for further investigation because the time frame and the financial costs (e.g. travel expenses, cost of living for interviewer, etc.) would not allow for the inclusion of all original participants.

For this part of the study, thirty female staff members from three hospitals who were engaged in bedside nursing and working a shift system, were selected and interviewed in May 2004. The hospitals chosen were the ones that represented the highest (Székesfehérvár), middle (Nyíregyháza) and lowest (Baja) response rate in the survey.

The selection of the candidates for the interviews was set up systematically. The participants, ten from each hospital, were selected randomly from those responding from particular departments participating in the survey. The original list of nurses who were eligible to participate in the study was kept by the nursing director, who then helped me to identify from an alphabetical numbered list the randomly chosen nurses in

the given hospital. During Phase I, nurses were also informed about a possibility of being interviewed in a later phase of the research. All those being selected for interview were given information about the flow of the interview. At the beginning of each interview, it was explained that the overall aim was to find out about each employee's experiences gained from working in the hospital. One to one semi-structured interviews were conducted with interviewees in a confidential environment provided by the hospital. Each interview commenced with a brief explanation of the nature and purpose of the study, and each participant was informed that the interview would take approximately one hour. Issues of confidentiality, anonymity and the voluntary nature of the interviews were addressed prior to the interview starting? The verbal material was supported with a written consent form which each participant was asked to read, given opportunity and encouraged to ask questions about any aspects of the study that they wanted more information about and sign when they felt comfortable in participating. (see Appendix B) All those who participated in the interviews were also given the right to withdraw from the interview at any given time. All participants signed the form and were given a copy of it. This copy included contact details (name and addresses) of the researcher. A rationale was provided for audio-taping the interviews, and permission gained. At the end of the interview, each participant was given the opportunity to provide any additional comments, or ask questions. Finally each participant was sincerely thanked verbally for their contribution to the project. Before conducting the semi-structured interviews I tested out the interview schedule with two nurse colleagues. The use of open-ended questions, as suggested by a number of researchers (e.g. King, 1996; May, 1997), encouraged each respondent to talk more freely and openly. Where further clarification, elaboration and development of a particular topic was needed, a variety of verbal and non-verbal encouragements and prompts were used following each primary question. This often involved use of gentle probing (Marshall & Rossman, 1995). To give time for rapport building, the initial open-ended questions were very broad and non-threatening. Only later in the interview, once rapport had developed, did the questions become more focused (Minichiello et al., 1995).

The questions used in the interview were the following:

- What is it like to work in the given hospital in direct patient care?
- What are some of the positives about working here?
- What are some of negatives or difficulties about working here?

- How much control do you believe you have over: your job, the hospital organisation?
- How do you manage some of the pressure or problems that arise here?
- How can you adjust your home life with your job?
- How much control do you believe you have over: your home responsibilities, organizing your life?

The interviews were tape recorded, transcribed and later analyzed using thematic content analysis. While this procedure missed the non-verbal behaviour of the participants, it enhanced greater rapport by allowing a more natural conversation style, where the interviewer was freer to be attentive and focus on the non-verbal behaviours (Minichiello et al., 1995). The minimal note taking that occurred during each interview functioned to highlight key words and issues, and served as a back up, in case of my problems that might occur with audio-taping. Additional notes were made as necessary by the researcher once the interview had been completed. On completion of all the interviews, the tapes were transcribed, allowing each interview to be read through quickly in conjunction with the tape recordings and used for supporting quantitative results.

DATA ANALYTIC MEHTODS

The selection of an appropriate method for the qualitative part of the study was based on the fact that there was no published method, in the Hungarian literature, of exploring nurses' perceptions of well-being. As the aim of the study was to explore and make sense of how nurses perceive their well-being a phenomenological approach was considered appropriate. The term phenomenology has been widely used, in plurality of form and across various traditions, that its meaning has become confused (Patton, 2002). What the various approaches and forms of phenomenology have in common, however, is a focus of exploring how people make sense of experience, transforming this experience into consciousness. Consciousness is the only access people have to the world, and what falls outside of consciousness, falls outside the bounds of our possible lived experience. Further, a person cannot reflect on lived experience while living through the experience. Consequently, phenomenological reflection is not introspective, but retrospective, a reflection on experience that has already been lived through (Van Manen, 1990).

In defining phenomenological research there is the assumption that there are essences to shared experience. These essences are the core meanings, mutually understood through a phenomenon that is commonly experienced. The task of phenomenology is to identify and interpret the essences or commonalities of the phenomenon using people's written and oral descriptions of their experiences as raw data (Patton, 2002).

There are two implications of the phenomenological perspective which holds that a subjective experience incorporates the objective thing and becomes a person's reality (Patton, 2002). Firstly, as there is no separate or objective reality from the self, the subject matter of phenomenological inquiry is to know what people experience, and how, through their experience, they interpret the world. Secondly, in reporting phenomenological findings, the essence or nature of an experience has been adequately described in language if the description deeply reveals the lived quality and significance of the experience (Van Manen, 1990). Thus the methodological implication relates to the importance of the researcher experiencing the phenomenon as directly as possible, either through direct observation or in-depth interviewing (Patton, 2002).

Any description of an experience is different from the actual experience. Language, by its nature, can enhance or alter an experience. Consequently, a retrospective viewpoint has some of the same mistakes, given the nature of language. As a retrospective viewpoint is the description of an experience after the passage of time, the verbal description may, therefore, not be accurate due to distortions arising from the passage of time. The advantage is that a retrospective viewpoint may allow a fuller verbal description, because the participant has had an opportunity to reflect on the experience and to integrate it consciously and verbally (Hycner, 1999).

Because of the distinctions and variations of phenomenology, there is no single approach to phenomenological analysis. Phenomenological methods of data analysis have been developed by, among others, VanKaam (1996), Colaizzi (1978), Giorgi (1985) and Douglass & Moustakas (1985). Each of these authors described in detail the steps that can be taken to read, analyse and validate data. Colaizzi's steps are as follows:

1. All interviews are transcribed verbatim and read in order to get a feel for them.
2. Significant statements and phrases that pertain to the experience under investigation are extracted.

3. Meanings are formulated from these significant statements.
4. Significant statements are organised into clusters of themes.
5. The themes are used to provide a full description of the experience.
6. Researcher returns the description to its original source for confirmation of validity.

The data gained in this phase of the study has been used to illuminate and validate the quantitative data from phase I.

CREDIBILITY

The two concepts underlying the credibility of scientific research are validity and reliability. However, in qualitative research, these terms are only used occasionally because of their close association with quantitative studies, and tend to be replaced with the term credibility (Patton, 2002). A number of methods of inquiry were applied to phase II to enhance the credibility of the research study (Patton, 2002; Silverman, 2001). Firstly, emphasis was given to authenticity by giving an accurate portrayal of the participants' lived experiences. "Authenticity means giving a fair, honest, and balanced account of social life from the view point of someone who lives it everyday." (Neuman, 2003, p.185.) Authenticity thus refers to truthfulness (Hammersley, 1990) or rigour (Patton, 2002).

Silverman (2001) maintained that using low-inference descriptors (Seale, 1999) helps to achieve authenticity. These descriptors necessitate using verbatim accounts of what people say, rather than relying on the researcher's reconstruction of the general sense of what people said, whereby the researcher's personal perspective may influence the reporting. In adopting the method of semi-structured interviewing, the present qualitative phase aimed at achieving low-inference descriptions by tape-recording all face-to-face interviews, and then carefully transcribing these tapes (Silverman, 2001).

To achieve authenticity, interviewing in this study also required a close fit between the data collected in the survey and what people reported. For the interviewer to make tentative conclusions, it is required that she constantly be engaged in checking perception and understanding against a variety of possible sources of error. Emphasis on building rapport, developing a good relationship with the interviewee, and implementing techniques such as probing, cross checking and recursive interviewing,

helped the interviewer discover discrepancies in the participant's story and enhance validity (Minichiello et al., 1995).

Another element applied in phase II to enhance credibility was rigorous methods. This meant that the researcher engaged in a systematic search for alternative themes, divergent patterns and rival explanations from what was said by participants, as well as what was not said (Neuman, 2003). In search of the best fit, the researcher assessed the weight of evidence, and looked for those patterns and conclusions that fitted the preponderance of the data (Patton, 2002).

Using the strategy of mixed methods in data analysis also added to the credibility of the current qualitative study by strengthening confidence in the conclusions and reducing bias (Patton, 2002)

An element also considered in the present study to enhance credibility, was the credibility of the researcher. Patton (2002) claimed that as the interviewer is the instrument of data collections, analysis and interpretation in qualitative inquiry, the researcher's experiences, training and perspectives may impact on these important research processes. (see Chapter I.)

ETHICAL CONSIDERATIONS

It was of personal and professional importance that the four widely accepted principles of ethics were adhered to throughout the research study: respect of autonomy, beneficence, non-maleficence, and justice (Kent, 2000a). The dignity, rights, safety and well-being of participants must be the primary consideration when carrying out research (Code of Ethics of the Hungarian Nurses Association). In broadly applying these ethical principles to the present study autonomy, the first principle, based on the respect of self-determinism, gave each participant the right to agree or not agree to take part in the study. The second principle of beneficence involves my obligation as a researcher and interviewer, to maximise the benefits to the nurses working in inpatient care as a result of the research findings. The third principle, non-maleficence, meant that it was my responsibility to avoid or minimise risks of harm or discomfort, which may affect participants. The fourth principle, justice, involved the fair distribution of benefits and burdens of the research to the participating staff.

To ensure the four principles guided each aspect of the research, four specific rules (veracity, privacy, confidentiality and fidelity) were applied to help build trust between participant and researchers (Kent, 2000a). Veracity placed responsibility on me to tell the truth at all stages of the research and to avoid deception (Neuman, 2000). I was therefore obligated to provide accurate information about the nature of the study. This meant that presenting misleading information was avoided, not only when recruiting participants, but throughout the research activities, including the final stage of reporting my findings.

Abiding by the second rule of privacy for the interviews meant that I needed to respect the participants for granting me access to their thoughts, feelings and behaviours during that access period. Bouma (2000) commented that it is important to avoid wasting participants' time and take only as much of their time as essential. Consequently, I informed each participant of the approximate length of time the interview would take prior to its commencement, and sought their approval. Participants were also made aware of their right to conclude the interview at any time and to choose to refrain from answering questions if they felt uncomfortable or were concerned about confidentiality.

Confidentiality, the third rule, is concerned with a participants' right to have control over the personal information that he/she is willing to divulge. This meant that for this study I ensured that information about each participant was kept confidential by removing any identifiers that may have linked a person to certain responses, thus ensuring anonymity. The fact that information from the survey was presented in aggregate form helped to ensure that information provided by a participant remained confidential and anonymous (Neuman, 2000). Further, in presenting quotes for the qualitative aspect of the study, pseudonyms rather than the real names of nurses were used. As confidentiality and anonymity were ensured, respondents were likely to respond more willingly and accurately (Moser & Kalton, 2001).

Fidelity, the fourth rule to be considered, meant that I was obligated to keep promises that I made to the participants. These promises included maintaining confidentiality and anonymity of staff members, keeping data safe and destroying information on the completion of the study.

To gain the informed consent necessary to protect the first principle of autonomy, that is, the right to exercise self-determination. Kent (2000b) maintained that five elements need to be met – information, voluntairness, understanding, the actual written or verbal consent of participants and the competence of potential participants. I made the assumption when undertaking this research that all staff members were sufficiently competent to participate and therefore this element will not be discussed further.

To gain informed consent all relevant information was given to participants that may have impacted on their decision to participate. The research assistant and I presented a verbal and written outline of relevant information for each participant relating to the nature and purpose of the research. In addition to this the participants were told how the research assistant involved could be contacted if there was any aspect of the research that they felt unsure about. The confidential nature of all material received was highlighted and the participants were assured of anonymity. Additionally, informed consent is only achieved when participants do not feel manipulated or coerced into participating (Fowler, 2002; Neuman, 2000).

In seeking the permission to carry out the research study and recruit the potential number of nurses meeting the criteria, I made a formal written request to the management of the chosen hospitals. In addition to this I also had to give an undertaking to the hospitals management and the nurses participating in the study to adhere to the general legal regulations on data safety and handling (Act LXIII of 1992). All the selected hospitals and individual nurses have given their written permission to participate in the study. After permission had been formally granted the nursing directors of the hospitals helped me to organize a meeting where I could meet with the head nurses of the departments and with their help we informed the nurses about the purpose and the process of data collection.

The voluntary nature of the study was highlighted and each participant was informed that they were free to refuse to be interviewed and/or could withdraw from the study at any time. Even though every effort is made to ensure participants are well informed, it is suggested that many of them misinterpret the information (Kent, 2000b). It is important, therefore, that participants understand the information that is presented. To facilitate the participants understanding, the research assistants and I made every

attempt to speak clearly, simply and to use words that were unambiguous. Each participant was also encouraged to seek clarification by asking questions.

Permission was then requested from each participant and a rationale provided to audiotape the interviews. What had been said to potential participants was then reiterated by means of a written consent form on University letter headed paper. Potential participants were given time to read the form, ask questions for clarification and sign it if they felt comfortable with it.

For the quantitative part of the study I had to initially rely on providing relevant information outlining the study in written form. In adhering to the principles of ethical analysis, particularly those of justice and non-maleficence, it was necessary to explain to managers and participants that their contribution to the research was for the betterment of nurses' life situation.

This chapter has illustrated that adopting a two-phase mixed methods research design in my research study provided a sound basis for addressing the objectives of the research. The data collected from the survey and from the semi-structured interviews allowed investigation of the research question through using relevant analytical methods.

The dearth of literature regarding Hungarian nursing experiences of well-being noted above meant that international empirical studies were utilised in developing the research design for this study. Although the international literature was relevant with regard to the occupational implications of being a nurse and the impact these have on well-being, there has to be an acknowledgement of the societal and cultural differences pertaining to the nurses' home life (see Chapter I.)

This chapter has illustrated that adopting a two phase mixed methods research design in the present research project provided a sound basis for addressing the objectives (of the programme) for theory development and theory testing. The data collected from the cross-sectional survey and from semi-structured interviews allowed a correct data analysis. Issues relating to the reliability, validity and credibility of the research were highlighted, as was the application of ethical principles to the research program.

The next chapter describes the research findings of the mixed method research design with regard to the experience of well being amongst Hungarian nurses working in hospital inpatient settings.

RESEARCH FINDINGS

This chapter presents firstly, the main results from the survey conducted among hospital female nurses in six regional hospitals, and secondly, the findings of semi-structured interviews carried out in three hospitals among 30 nurses. Initially the creation of the scales for well-being and the demand, control and support dimensions will be presented, with the results shown in the order of the development of the Karasek and Johnson's DCS model for the job and for the home context. The results of two linear regressions models are then presented separately and the significant results are combined in one logistic regression model. Finally the results from the qualitative phase of the study are presented and analyzed.

DATA ANALYSIS AND PRESENTATION OF QUANTITATIVE RESULTS

The brief flow of the process of the quantitative methods is illustrated in Figure 4.1. It shows the process used to analyse the quantitative data, which involved the creation of groups from the sample, based on the DCS model.

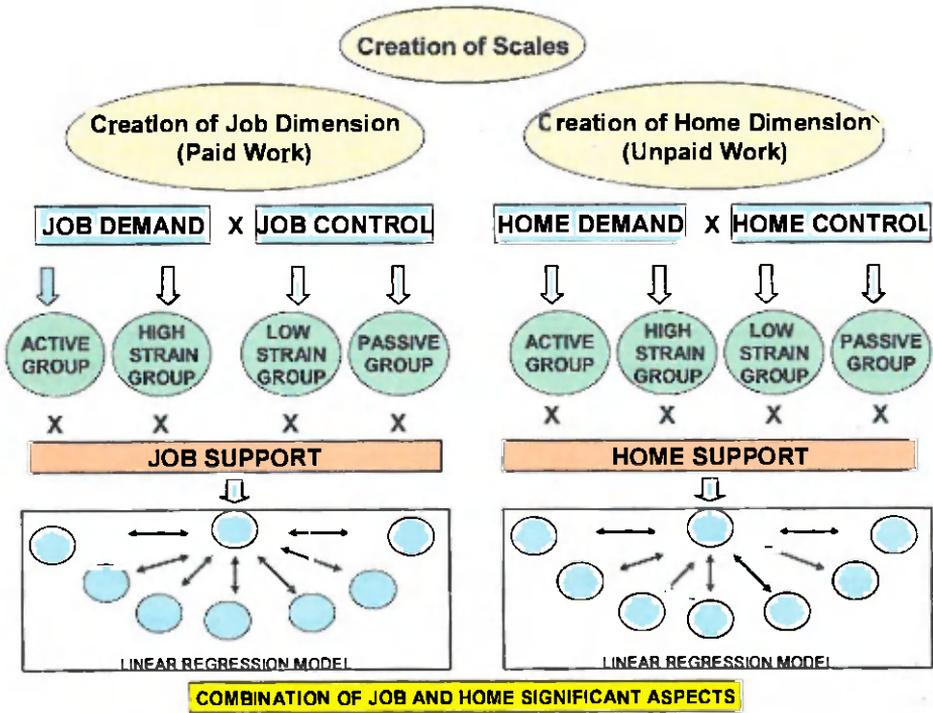


Figure 4.1 The flow of the research process in the study

In the quantitative data analysis process of the Phase I. (see Figure 3.1) after the creation of the measuring scales the paid and unpaid spheres of the work were identified. With the help of statistical tools as described in the Chapter III., based on the

demand and control variables of the paid and unpaid work groups were created. To expand the explanation value of the demand and control model, the support dimension was added with cutting each former created group by low or high support. With this method eight groups were produced which were compared to the “worst” case when the nurses had high demand, low control and low support.

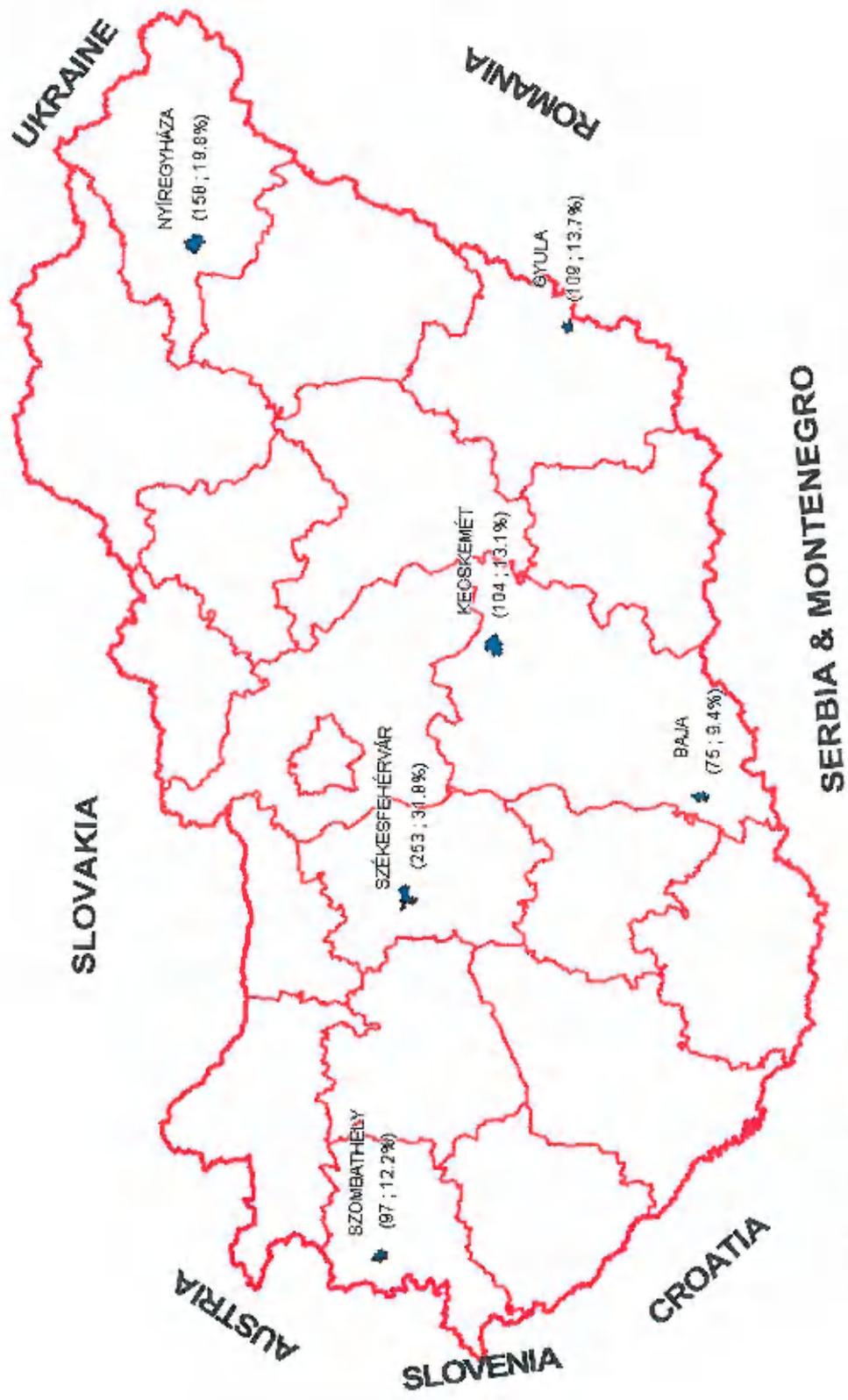
A total of 796 questionnaires were returned out of 1305, providing 61% response rate from the chosen institutions. The most important socio-demographic data in the sample is shown in Table 4.1.

Characteristics of the sample	
Participants (n=796)	
Mean (SD) age (years)	35,36 (9,33)
Education level	
Nurses with MSc	2
Nurses with BSc	76
Diploma nurses	718
Marital status	
Married (living with partner)	489
Not married	307
Shift working	
Always day shifts	120
Three shifts	184
Two shifts (morning and night)	485
Clinical settings	
Internal Medicine	340
Surgery	204
Intensive care	154
Pediatrics	98
Presence of chronic illness	
Yes	568
No	228

Table 4.1. Socio-demographic characteristics of the survey in 2003

The age and workgroup distribution in the sample does not differ from data held by the national registry of nurses. The majority of nurses in the sample had more than 6 years experience working in health care settings. All nurses were female because of the majority of nursing workforce (95%) are female.

The number and the geographical distribution of the responding nurses are shown in Cartogram 4.1



Cartogram 4.1 The number of the responding nurses from the participating hospitals in Hungary

RESULTS AND MEASUREMENT OF VARIABLES

The survey is designed to measure the impact of professional, organisational and personal aspects of paid and unpaid work on nurses' sense of well-being. The questionnaire is split into five areas: 1) professional life, 2) organisational rewards, 3) social aspects (family and home life), 4) health status, 5) personal particulars.

Initially the data set was screened. Firstly, the data were checked for incorrect data entry. Corrections were made where necessary and the data set was again checked for accuracy. The 796 responses from the questionnaire were then checked for missing data. As the total missing values were less than 1%, and in order to retain as many items as possible, these missing values were replaced with the series mean.

Next the data were checked for normality of the distribution of scores and linearity. Diagnostic procedures conducted on the data revealed that for a number of items, skewness (mostly negative) and kurtosis were marked.

Several studies of robustness of the multivariate normality assumption (Armemiya & Anderson, 1990) found that the parameter estimates remain valid even when the data are non-normal. Arbuckle and Wothke (1999) argued when testing models it is sufficient that the observed variables have a multivariate normal distribution. Steps were taken in the present study to reduce the severity of non-normality by changing the scores on the variables. After making the adjustments assessment of the data, graphically and statistically, normality had improved and the skewness and kurtosis values were mild. This revised data set was used for all further statistical analysis.

CREATION OF SCALES

The aim of creating scales was to establish the smallest set of factors which would capture a satisfactory amount of the variance from the initial set of questions for each construct on the questionnaire and yet best reflect, in a meaningful way, the construct in the model. As in preliminary assessment, each set of items contributing to each construct was factor analysed using the same set of steps. Firstly principal components analysis assessed the factorability of items. This was achieved through two statistical measures, Bartlett's test of Sphericity (Bartlet, 1954) where $p < 0.05$ and Kaiser-Meyer-Okin's (KMO) measure of sampling adequacy (Kaiser, 1970) where an index has to be no smaller than 0.06 to be acceptable (Pallant, 2001; Tabachnick & Fidell, 2001).

Next, Principal Axis Factoring (PAF) was undertaken to identify the items loading on a factor. To be included in a factor, the items needed to be correlated with a particular factor. For a factor to be acceptable, a minimum of 3 items needed to load on it, $r > 0.3$. Items that had significant cross-loadings on other factors were not included (Tabachnick & Fidell, 2001). Adaptations of established scales used in the study were checked using Principal Component Analysis, unless otherwise stated.

For the interpretation of the factors, once the number of factors was determined, rotation was used as the third stage of scale creation to simplify the structure and achieve a more meaningful patterning of items. Either orthogonal rotation, using the Varimax method, or oblique rotation, using the Direct Oblimin method, was selected to provide the solution that was most interpretable, and most closely approximated a simple structure (Cudeck, 2000). Guiding the choice of rotation was the fact that oblique solutions are more likely to approximate simple structure and allow the factors to be correlated. Their use is particularly beneficial when the correlations in the factor correlation matrix are greater than 0.3 (Cudek, 2000; Hair et al., 1995; Tinsley & Brown, 2000). Orthogonal solutions, however, are useful when co-linearity needs to be eliminated (Tabachnick & Fidell, 2001).

Regarding the reliability of scales a satisfactory factor solution was derived for each scale, the composite of items for each factor was checked for reliability using Cronbach's alpha coefficient. The accepted coefficient for all scales in the present study was > 0.6 . The next section presents the specific analysis of the underlying structure and development of each of the scales.

Well-being as dependent variable

The dependent variable, 'Well-being' was measured on two dependent variables: positive and negative well-being. In order to focus on psycho-social aspects of health Bradburn's Affect Balance Scale (Bradburn, 1969) was used as a psychometric tool. The tool has already been adopted for use within the Hungarian culture in measuring national differences in Subjective well-being (Diener & Suh, 1997). For each item, a three-point scale was used with 3 representing 'often' and 1 representing 'never'. (see Table 4.2)

Well-being Scales	
Positive Well-being (1: never – 3: often)	
Summary of Items	Factor Loadings
Being on top of the world	0.74
Pleased about accomplishing something	0.76
Proud because someone had complimented you on something you had done.	0.76
Pleased That things were going you way.	0.73

Cronbach's α	0.74
Negative Well-being (1: never – 3: often)	
Feeling Very lonely or remote from other people	0.79
Feeling Depressed or very unhappy	0.85
So restless that you cannot sit for long in a chair	0.62

Cronbach's α	0.68

Table 4.2 Internal consistency and factor loadings for well-being scales

Psychosocial job characteristics as independent variables

Demands and Control over aspects of the job were based on Hall (1992) and Karasek's measure scale, with additional items derived from our pilot study. The job demands scale is the sum of three subscales of psychosocial demands at work (direct workload- 6 items; work recognition-3 items; stress sources in work-8 items). (see Table 4.3)

Job Demand Scale

IN THINKING ABOUT YOUR CURRENT JOB, to what extent, if any, is each of the following a CONCERN (5: An extreme concern – 1: not at all concern; 0 does not apply)

Summary of Items	Factor Loadings
Having too much to do	0.72
Having to deal with emotionally difficult situations	0.70
The pace of work being too fast	0.79
The job is very stressful	0.85
The job is physically strenuous	0.84
The job is emotionally difficult	0.81
Cronbach's α	
	0.70

In thinking about your job to what extent do the following make you feel rewarded? (5: extremely – 1: not at all)

the recognition you get	0.89
the appreciation your get	0.87
your pay is good compared to other people in your field	0.62
Cronbach's α	
	0.72

HOW OFTEN do the following situations occur in your PRESENT WORK SETTING? (1: never – 5: very often)

Death and dying.	0.69
Feeling inadequately prepared for challenging situations.	0.60
Lack of support in different difficult situations.	0.70
Conflict with other nurses.	0.65
Uncertainty concerning treatment ordered by doctors.	0.59
Problems with patients and their families.	0.61
Health and safety hazards.	0.57
Accountability without control.	0.66
Cronbach's α	
	0.69

Table 4.3 Internal consistency and factor loadings for job demand scales

The job control scale is the sum of three subscales (decision authority in work-4 items; control over planning and method in work-8 items). (see Table 4.4)

Job Control Scale	
In thinking about your current job, to what extent, if any, do you find each of the following REWARDING: (1: not at all rewarding – 5: extremely rewarding)	
Summary of Items	Factor Loadings
Being able to make decisions on your own	0.74
Being able to work on your own	0.50
Having the authority you need to get your job done without having to go to someone else for permission	0.76
The freedom to decide how you do your work	0.83
Cronbach's α	
In thinking about the AMOUNT OF CONTROL you have in your current work situation, to what extent, if any, do you have:(1: hardly any – 4: complete)	
Influence over the planning work	0.69
Flexible working hours	0.74
Influence over how time is used	0.64
Varied task content	0.78
Varied work procedures	0.74
Influence over the planning taking of work breaks	0.52
Influence over the planning of vacations	0.62
Cronbach's α	

Table 4.4 Internal consistency and factor loadings for job control scales

For each demand and control items, except the last subscale, the respondents could choose from 1 to 5 responses varying from the lowest to the highest load. See Table 4.4

In order to measure job strain, the job demands and job control scales were converted to dichotomous measures by splitting them on the median in order to compare them with other data findings in published literature. However in multiple regression analysis they were not used as, based on former analytical experience, the cluster analysis mirrors the homogeneity of the sample groups more precisely.

The subscales in the two main dimensions were standardized and cluster analysed by K-means into two clusters, 1 being low and 2 high value in the clusters. All the subscales were counted with the same weighting.

A cross-classification of these two measures produces the 2 x 2 matrix shown in table 4.5, which defines four exposure categories as used by Lerner et al. (1994). Four variables (1=yes, 0=no) indicating the type of work – high strain, low strain, passive, and active – were created.

		Psychosocial job demands	
		Low	High
Job Control	Low	Passive work N=131;	High-strain work (iso-strain) N=256
	High	Low-strain work N=220	Active work N=189

Table 4.5 The distribution of the two dimensional model for job strain

In addition to the psychosocial job characteristics home demands and control also needed to be identified. Therefore a scale was developed, based on the pilot study, to measure the demands and control relating to the respondents' home situation. The home demands scale consists of one subscale, which comprises: time pressure at home-3 items; recognition at home-3 items; no challenge at home-1 item; adjusting shift with home-2 items.

The home control variable was also measured with one subscale. It consists of rewarding home responsibilities-4 items; and creative things-5 items. On the home control subscale 1 = not at all rewarding, 5 = extremely rewarding scale. (see Table 4.6)

Home Control Scale

In thinking about your HOME RESPONSIBILITIES, to what extent, if any, is each of the following a REWARDING: (1: not at all rewarding – 5: extremely rewarding)

Summary of Items	Factor Loadings
Having enough time and enough energy to enjoy being with your children/partner	0.51
The appreciation you get from your family	0.65
Having other people enjoy your home	0.59
Being available to do things for others	0.60
Being free to plan your own schedule of jobs	0.53
Doing creative things around the house	0.59
Having the amount of responsibility you can handle	0.60
Keeping the house looking nice and cared for	0.70
Being able to pursue your personal interests	0.73
<hr style="border-top: 1px dashed black;"/>	
Cronbach's α	0.77

Table 4.6 Internal consistency and factor loadings for home control scale

The home demands subscale allowed respondents to rate their experiences on 4 point scale, 1 meaning no concern at all and 4 being extremely concerning (see Table 4.7)

Home Demand Scale

In thinking about your HOME RESPONSIBILITIES, to what extent, if any, is each of the following a CONCERN: (1: Does not concern me at all – 4: I am extremely concerned; 0: Does not apply)

Summary of Items	Factor Loadings
Not enough free time for family	0.80
Not enough free time for yourself	0.78
Having to structure or plan your time	0.80
Lack of appreciation of all the work you do by family members	0.60
Having to divide yourself up in pieces and juggle things	0.74
Being too available to other people	0.54
A lack of challenge	0.53
Adjusting the work shift with spouse	0.54
Adjusting the work shift with children	0.64
<hr style="border-top: 1px dashed black;"/>	
Cronbach's α	0.79

Table 4.7 Internal consistency and factor loadings for home demand scale

The same technical procedure was carried out with home dimensions as well. The subscales in the two main dimensions were standardized and cluster analysed by K-means into two clusters, 1 being low and 2 high value in the clusters. All the subscales were counted with the same weightings.

A cross-classification of these two measures produces the 2 x 2 matrix shown in table 4.8, which defines four exposure categories as used by Lerner et al. (1994). Four variables (1=yes, 0=no) indicating the type of unpaid work – high strain, low strain, passive, and active – were created.

		Psychosocial home demands	
		Low	High
Home Control	Low	Passive home N=135	High-strain home (iso-strain) N=282
	High	Low-strain home N=243	Active home N=136

Table 4.8 The distribution of the two dimensional model for home strain

To establish the most representative characteristics of the sample (job and home features) cluster analysis on the above mentioned dimensions was used. This ensured that the results were more precise in featuring the job and home strain among nurses in the sample.

For the measurement of iso-strain (low control, high demand, low support), a work-related support scale was constructed by summarizing two scales: collegial support (4-items) and support from supervisors (4 items). The response rate varied from 1 = no support at all, to 5 = always being supported. (see Table 4.9)

Job Social Support Scale

In thinking about your current nurse colleagues, to what extent, if any, do you find each of the following REWARDING: (1: not at all rewarding – 5: extremely rewarding)

Summary of Items	Factor Loadings
The image your profession has within society	0.74
Nurses sticking up for each other	0.74
That the people you work with are important in your life	0.72
The competence of other nurses	0.66
Cronbach's α	0.67

In thinking about your immediate supervisor, to what extent, if any, does she/he... (1: not at all – 5: always)

show concern about the welfare of those under them?	0.85
like you (related to the job)?	0.86
respect your abilities?	0.91
encourage your professional development?	0.85
Cronbach's α	0.87

Table 4.9 Internal consistency and factor loadings for job social support scales

For the iso-strain at home, the home related social support was measured with four subscales. The first subscale focused on their relationship with their partner. If applicable, the respondents were asked to rate this on a 1 to 5 scale; 1 indicating a very poor unsupportive relationship and 5 being an extremely supportive relationship.

The second question asked the respondent if she has someone, other than a partner, to confide in. If the answer to this question was yes, the extent to which she was able to talk to this person when she had worries or concerns was rated on a scale of 1 to 5, 1 indicating 'not very often' and 4 being 'very often'.

The last two questions; 'If you were feeling so stressed that you wake up during the night and need someone to talk to would you have someone in your life to ring'; and 'Do you have someone outside of your family who you are so close to that you could wake him/her up during the night in case of a serious problem' both elicited a yes or no response.

Home Social Support Scale

In thinking about your relationship with your partner or spouse, please answer the following questions: (1: not at all – 5: totally; 0 does not apply) ($\alpha=0.89$)

Summary of Items	Factor Loadings
To what extent do you talk to him/her about things that worry you?	0.98
To what extent do you feel you can talk to him/her quite easily?	0.99
To what extent do you think she/he understand the demands of your work?	0.98
How well do you and your partner/spouse get along in general?	0.99
To what extent do you confide in him/her generally?	0.99
Cronbach's α	
	0.99

Do you have someone OTHER THAN A PARTNER in whom you can confide (eg a friend, relative, etc.)? Yes or No

To what extent do you talk to this person about things that worry you
(1: not very often – 4: totally)

If you were feeling so stressed that you wake up during the night and need someone to talk to would you have someone in your life to ring? Yes or No

Do you have someone outside of your family who you are so close to that you could wake him/her up during the night in case of a serious problem? Yes or No

Table 4.10 Internal consistency and factor loadings for home social support scales

Next, work and home related support groups were created first by splitting on the median. Persons above the median represented as receiving high support at work and home. As before, a cluster analysis was also used.

Finally work and home related support was cross-classified with job and home strain creating 8 exposure groups shown in chart 4.1-4.2. Two times eight variables indicating the 8 exposure groups were created for work and home life.

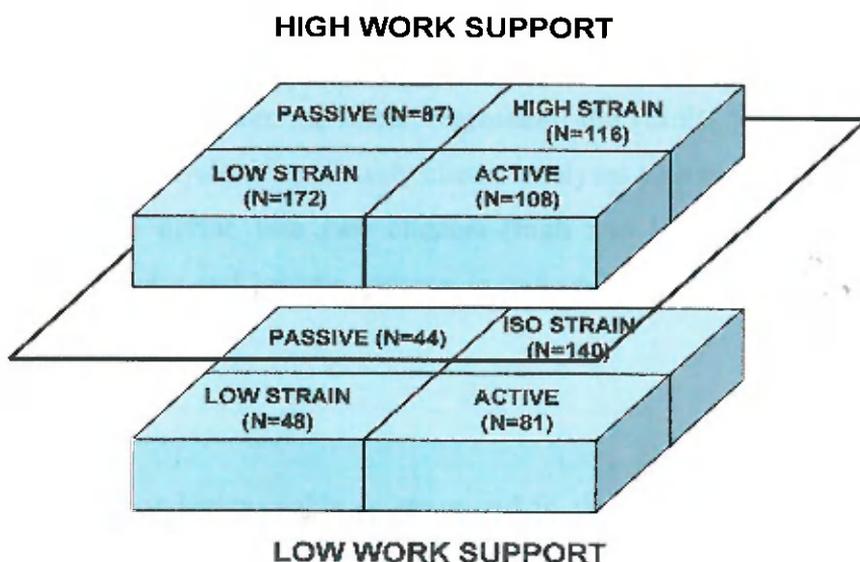


Chart 4.1 Three dimensional demand-control-support model of job (paid work)

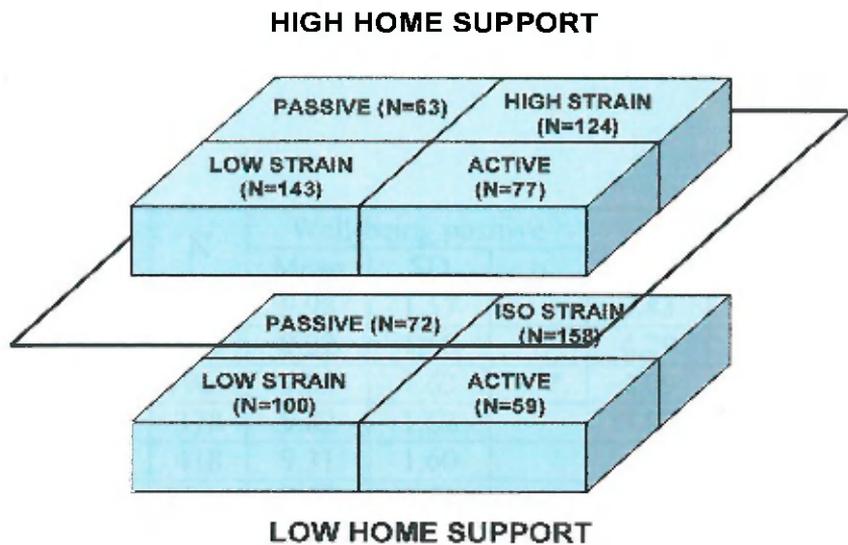


Chart 4.2 Three dimensional demand-control-support model of home (unpaid work)

Measurement of covariates

Covariates were also identified for example, marital status, educational background (master's degree, bachelor' degree or a nursing diploma), and whether or not a respondent had a chronic illness. These variables were handled as control variables because of their potential influence on the dependent variable of well-being.

In developing the hierarchical models for paid and unpaid work first the covariates were analysed, in order that two hierarchical models could be developed, one relating to paid work and the other to unpaid work. Using the covariates, first the psychosocial factors were included, and than the support features. Next, both effects were combined in a linear regression model. In knowing that data do not always support the requirements of the rigorous mathematical conditions of linear regression, the results were controlled with a logistic regression analysis. In this study cluster analyses was used to enable the dependent variables to be divide into two clusters (high and low). The significant results, gained from the linear and logistic regression and underpinning each-other, are highlighted.

TESTING MODELS

In the first model the dependent variable is examined in three dimensions (demand-control-support) of, job and home life.

Table 4.11 shows that both positive and negative well-being have a significant correlation with job and home life characteristics of the DCS dimensions. The main dimensions are split by cluster analysis, and the relationship is examined by using a T-test on independent samples.

Dimensions			N	Well-being positive			Well-being negative		
				Mean	SD	p	Mean	SD	P
DEMAND	Job	Low	351	9.98	1.57		3.83	1.08	
		High	445	9.22	1.60		4.29	1.10	
	Subtotal		796	9.55	1.63	***	4.09	1.11	***
	Home	Low	378	9.82	1.62		3.82	1.12	
		High	418	9.31	1.60		4.33	1.06	
Subtotal		796	9.55	1.63	**	4.09	1.11	*	
CONTROL	Job	Low	387	9.28	1.60		4.19	1.13	
		High	409	9.81	1.63		4.00	1.09	
	Subtotal		796	9.55	1.63	***	4.09	1.11	*
	Home	Low	417	9.10	1.53		4.26	1.07	
		High	379	10.05	1.59		3.90	1.13	
Subtotal		796	9.55	1.63	**	4.09	1.11	*	
SUPPORT	Job	Low	313	9.24	1.54		4.25	1.14	
		High	483	9.76	1.65		3.99	1.09	
	Subtotal		796	9.55	1.63	***	4.09	1.11	**
	Home	Low	389	9.27	1.66		4.41	1.12	
		High	407	9.82	1.55		3.78	1.02	
Subtotal		796	9.55	1.63	***	4.09	1.11	***	

* 0.01 < p < 0.05; ** 0.001 < p < 0.01; *** p < 0.001

Table 4.11 The distribution and relationship of dependent variables in main dimensions of paid and unpaid work

On completion of the above a linear regression model was then used to establish the effects of paid work and work within the context of home on positive and negative well-being. In order to control the effects of the work and home dimensions age, marital status, educational background and presence of chronic illness as inherent variables were tested for dependent variable. (see Table 4.12).

Inherent Variables	Positive well-being adj.R ² =0.007		Negative well-being adj.R ² =0.050	
	Beta	Sig.	Beta	Sig.
Age	0.027	0.462	-0.07	0.043
Marital status	-0.101	0.005	0.213	0.000
Educational background	0.007	0.848	-0.002	0.951
Presence of chronic illness	-0.006	0.874	0.028	0.426

Table 4.12 The results of inherent variables in the linear regression model (adjusted R square, standardized regression coefficients (Beta), significance)

After applying the linear regression model the results showed very modest effects suggesting that further analysis of the data was needed.

Paid work

In the first instance the groups created using the demand-control dimension were included, and all groups were compared to the high strain work group. Following these groups developed using the demand-control-support model were analysed by linear regression analysis. Groups are compared to iso-strain group (Table 4.13).

Job strain at paid work (N=796) Model 1	Positive well-being (adj. R ² =0.071)		Negative well-being (adj. R ² =0.086)	
	Beta	Sig	Beta	Sig
Passive	0.131	0.001	-0.142	0.000
Active	0.082	0.037	-0.048	0.222
Low strain	0.298	0.000	-0.211	0.000
Model 2	(adj. R ² =0.074)		(adj. R ² =0.087)	
Passive/low support	0.055	0.149	-0.89	0.020
Passive/high support	0.160	0.000	-0.137	0.001
High strain/high support	0.053	0.211	-0.028	0.503
Low strain/low support	0.130	0.001	-0.056	0.142
Low strain/high support	0.324	0.000	-0.240	0.000
Active/low support	0.055	0.174	-0.039	0.338
Active/high support	0.110	0.010	-0.056	0.184

^a All models controlled for age, marital status, educational background, presence of chronic illness.

Beta: Standardized regression coefficients; Sig.: significance.

Table 4.13 Linear regression of positive, negative well-being on paid work

In the table 4.13 model 1 would suggest that paid work of the participating nurses which has low demand associated with high control (low strain group) or with low control (passive group) may significantly influence both, the positive and negative well-being of nurses. However, those nurses who experience high demand with high control (active group) in their work will only have their positive well-being affected significantly.

As the third dimension in the DCS model, the job support was introduced (Table 4.13 model 2). Among those nurses who experience low demand and low control (passive group) in their work, a high level of support appears to have a strong influence on their positive and negative well-being. If their job support is low it is their negative well-being that becomes affected. However when the demand is high and the control is low

(high strain group) in the workplace, a high level of job support may not mediate the work effects with regard to positive or negative well-being.

In contrast to this if the nurse whose work demand is low and the control over their work is high (low strain group) get high levels of support within their work environment, their well-being, both positive and negative is affected significantly. If the support is low, in the same group of nurses, only their positive well-being will be influenced. If the nurses experience high demand and the control over work is high (active group), high job support may only affect positive well-being. It can therefore be concluded that low support does not have significant influence on nurses' well-being.

Unpaid work

Again in the first instance the groups of nurses' included on demand-control dimension relating to unpaid (home) work, were examined. All groups were compared to the high strain unpaid group. In the second instance groups developed on the demand-control-support model were analysed by linear regression analysis. Groups were then compared to iso-strain group (Table 4.14).

Job strain at unpaid work (N=796)	Positive well-being (adj. R ² =0.096)		Negative well-being (adj. R ² =0.112)	
	Beta	Sig	Beta	Sig
Model 1				
Passive	0.065	0.085	-0.137	0.000
Active	0.201	0.000	-0.049	0.189
Low strain	0.320	0.000	-0.282	0.000
Model 2	(adj. R ² =0.071)		(adj. R ² =0.132)	
Passive/low support	0.058	0.144	-0.048	0.214
Passive/high support	0.100	0.014	-0.226	0.000
High strain/high support	0.101	0.026	-0.120	0.007
Low strain/low support	0.229	0.000	-0.192	0.000
Low strain/high support	0.342	0.000	-0.327	0.000
Active/low support	0.160	0.000	-0.010	0.781
Active/high support	0.201	0.000	-0.129	0.002

^a All models controlled for age, marital status, educational background, presence of chronic illness.

Beta: Standardized Regression coefficient; Sig.: significance.

Table 4.14 Linear regression of positive, negative well-being on home (unpaid) work characteristics

In the model 1, the first linear regression model suggests that for those nurses who have low demand and control (passive group) in their home work, their negative well-being will be influenced significantly, whilst those nurses who experience low demand and

high control (low strain group) are pre-disposed to having both aspects of their well-being strongly affected. For those nurses who have high demand and high control over their home lives (active group) only their positive well-being will be affected.

Using the second model of unpaid work of nurses, that is where the support dimension is added, the following results are demonstrated. The high home support of nurses in the passive group (low demand, low control) may significantly affect both aspects of well-being. However, low support does not appear to significantly influence nurses' well-being. The nurses who have high demand and low control (high strain group) in their home lives, and get high support from their home environment, might experience the impact on their well-being.

In the group of nurses who experience low demand and high control (low strain group), home support, either low or high, plays an important role. If the nurses who have high demand and high control (active group) in their home life get high support from their home environment, they might experience a significant impact on their positive and negative well-being. If they get low support in their home this may compromise their positive sense of well-being.

As summary, in the 4.3 chart the significant effects of the paid and unpaid work on nurses' well-being are presented. The linear regression models are shown separately. In the model 1 all groups are compared to the high strain group and in the model 2 to the group with high-strain and low support.

In the first models very similar effects can be detected between paid and unpaid work on both positive and negative well-being of nurses. In the second model the home support (either high or low) has more significant impacts on well-being than the work support has. In both aspects of work, the high support in all groups where there is an association with well-being may contribute to the sense of the well-being more frequent.

After seeing both aspects of work (paid and unpaid) influencing the positive and negative well-being of responding nurses I wanted to explore the combined effects of paid work and unpaid work.

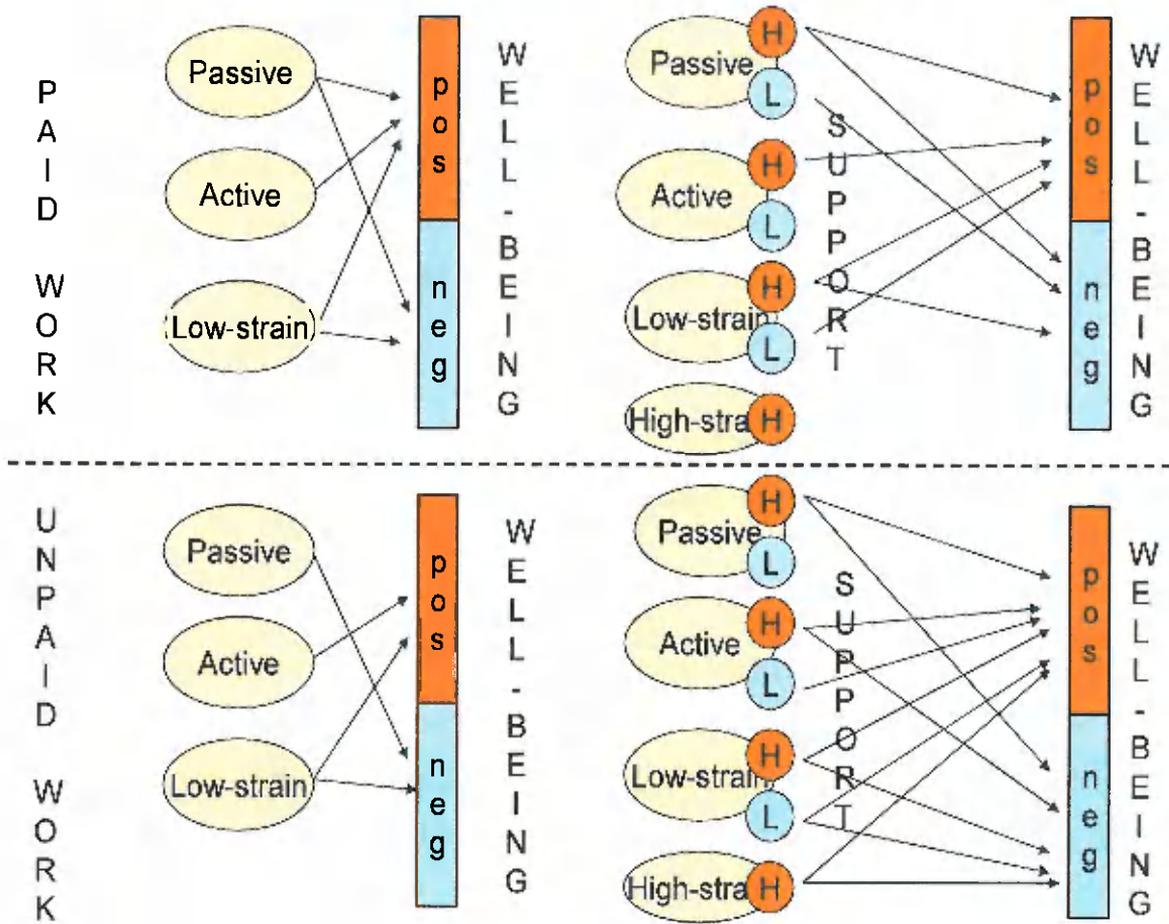


Chart 4.3 The significant effects of paid and unpaid work on nurses' well-being based on linear regression models

The effects of paid and unpaid work are compared in joint linear regression models. Beta coefficient shows the differences among compared to iso-subgroups. (Table 4.15) The detailed table of comparison can be seen in the Appendix D Table7.

Overall linear regression model	Positive well-being				Negative well-being			
	Job		Home		Job		Home	
	Beta	Sig	Beta	Sig	Beta	Sig	Beta	Sig
Passive/low support	0,031	0,399	0,041	0,299	-0,066	0,073	-0,038	0,332
Passive/high support	0,127	0,002	0,077	0,054	-0,086	0,033	-0,209	0,000
High strain/high support	0,054	0,191	0,104	0,020	-0,030	0,467	-0,118	0,008
Low strain/low support	0,091	0,017	0,181	0,000	-0,019	0,609	-0,163	0,000
Low strain/high support	0,262	0,000	0,281	0,000	-0,169	0,000	-0,288	0,000
Active/low support	0,026	0,513	0,158	0,000	-0,031	0,438	-0,006	0,871
Active/high support	0,090	0,030	0,200	0,000	-0,033	0,423	-0,125	0,002

Table 4.15 Comparison of Beta coefficients of linear regression analysis

It turns out from the Table 4.15 that if the nurses who experience low demand and low control (passive group) get low support either from home or from work, it does not affect their well-being significantly in either a negative or a positive way. In the same passive group (low demand and low control), if the support is strong enough what nurses get from home or from work, it can influence both well-being. The home influence is stronger in negative well-being but the job has more impact in positive well-being.

How the high level of home support influences both aspects of well-being is most demonstrable among nurses who belong to the high demand and low control (high strain) group.

If nurses who experiences low demand and high control (low strain group) get a high level of support, they experience the influence over their well-being. However, low support also has an influence on their well-being with the support from their job having no impact on their negative well-being.

The nurses who have high demand and control (active group) may experience high support from home which in turn will influence their positive and negative well-being. The low support in this group has only impact at home work in nurses' positive well-being more likely.

Comparing all subgroups to the iso-strain group, the direction of differences in positive well-being is positive, and in negative well-being negative. This led to the conclusion that the most vulnerable and therefore 'at risk' sub group might be the iso-strain group. However in order to verify these results and increase the validity of this inference an alternative set of statistical criteria to seek confirmation of the findings was used. Logistic regression analysis is an appropriate statistical tool to demonstrate the likelihood of how certain variables might influence, positively or negatively, a nurses' experience of well-being. By using the logistic recession model the chance for the improvement of well-being can be expressed numerically with regard to the complex influence of one or another factor (DCS), namely, by presenting the values of chance quotient.

The significant odds- ratios in improving well-being are presented in the following table based on a logistic regression model. (Table 4.16)

		Exp (B)	CI _{95%}		Control	Demand	Support
			Lower	Upper			
		Comparison basis			low	high	low
Positive Well- being	Paid work	2.9	1.7	4.9	high	low	high
		1.9	1.1	3.2	high	high	high
	Unpaid work	3.0	1.7	5.4	high	low	high
		2.5	1.4	4.5	high	low	low
		2.4	1.2	4.6	high	high	low
	2.3	1.2	4.4	high	high	high	
Negative Well- being	Paid work	2.4	1.4	4.1	high	low	high
		3.7	1.7	8.0	low	low	high
	Unpaid work	2.4	1.4	4.2	high	low	low
		3.2	1.8	5.8	high	low	high
		2.4	1.2	4.6	high	high	low

Table 4.16 The significant odds-ratios in paid and unpaid work

Of the Demand-Control-Support subgroups created for the purposes of this study the one found to be in the most unfavourable position (iso-group) was used as a basis of comparison for the rest of the groups with regard to demand, control and support both in the home and at paid work. The result of doing this clarifies that it is ‘demand’ that has the greatest influence over the variable of well-being.

As a rule, variables are favourably influenced by an increase in the degree of support in the home (unpaid work) environment and in the paid work environment, with both occasionally being capable of compensating for the negative influence of an increased demand in work. Variables are adversely influenced by comparatively high demand, with special regard to exhaustion, which cannot be compensated for by control or increased support.

A detailed analysis of the individual variables revealed the following:

Increased demand cannot be compensated for by either increased control or increased support as isolated entities, however, it can be compensated for and a favourable influence achieved if these two phenomena are experienced simultaneously. In addition

to this increased demand in the home can be compensated for if there is a sense of control in the home in itself.

Positive well-being

Compared to the iso-group, the compensating effect of control and influence at work doubles the chance for improvement in well-being. If, in addition, a lower degree of demand is present (the group in the most favourable position), the chance for improvement of well-being is increased three-fold. Psycho-social demand in the home work leads to results similar to those observed at work, although the influence of control in the home seems to be more significant in the case of the former.

Negative well-being

The positive influence of factors in the home have a stronger influence on the demand and the positive influence of the remaining two factors allows for a prognosis of an improvement by three times as an average.

All the above mentioned findings from the survey of the phase I in this study shows the impact of paid and unpaid work conditions based on DCS model. To give a better and a deeper understanding to the findings interviews were carried out and analyzed in phase II of the present project.

The aim of the analysis was to extract the essence of the informant's meanings, as they were verbalised, either as intended or unintended accounts of the interviewees (Minichiello et al., 1995). The interview transcripts were carefully read and analysed for the purpose of recognising meaningful themes (categories) that communicated the key issues. In order to discover the themes, a process was followed that involved taking a number of steps that built upon each other (Patton, 2002).

As a first step the responses to each question for each of the thirty interviewees were grouped together as a way of segmenting the large amount of data into manageable units (Minichiello et al., 1995). To gain insight into the emerging patterns, data were read several times for the purpose of finding core consistencies in the form of recurring words or concepts. All the initial concepts were recorded and examined for frequency, initially for each question and later for the all data. All concepts were recorded as phrases or sentences or as to preserve the original intent (Punch, 1998). Through induction, the accumulated concepts and frequencies for all the interview material were then analysed to allow sorting of 'recurring regularities' into meaningful categories (Patton, 2002 p. 465). Closure was brought to the process when the sources of information were exhausted and the categories were saturated.

Each theme was then studied for concepts that were qualitatively linked, enabling them to be clustered into sub-themes to add meaning and depth to the main theme. Frequencies were used to check that the sub-themes were representative (Miles & Huberman, 1994), with the concepts contributing to each sub-theme occurring a minimum of twice. Through the process of the development of themes and sub-themes, labels were generated that encapsulated the meaning of the themes and sub-themes. Quotes selected from the data served to illustrate each theme and sub-theme, and also provided a rich description that depicted the intended meaning of the interviewees (Patton, 2002; Rubin & Rubin, 1995).

All themes were then evaluated by two criteria (Patton, 2002). Internal homogeneity, the first criterion applied to each emerging theme, was scrutinised to what extent the data in a certain category held together in a meaningful way. The second criterion, external heterogeneity, was concerned with the extent to which differences among the

themes were identified. To achieve internal homogeneity and external heterogeneity required the researcher to work back and forth between transcripts and categories to verify the accuracy and meaningfulness of the categories and the material constituting each theme and sub-theme (Patton, 2002).

Finally the set of themes were checked for completeness. This was achieved in a number of ways. Firstly, the internal external plausibility was checked. This is a property that Patten (2002) called 'integrability' (p. 466) and required the individual categories or themes to appear consistent when viewed internally and to comprise a whole picture when the set was viewed externally. This meant that each of the themes developed from the elements that were physically present and accountable, were also studied for conceptual linkages, creating patterns that could be theoretically supported from the literature, while remaining consistent with the informants' view (Minichiello et al., 1995).

Furthermore, to check the set was reproducible, the data, the themes, the sub-themes were shown to another competent researcher, a colleague of mine, to verify that the categories made sense, and the data were appropriately clustered in the category system and that the category system fitted the data. The proposed themes and sub-themes were then discussed with one member of staff who has contributed to the interview material, to ensure that the categories were credible and appropriately reflected their issues and concerns (Patton, 2002). Thus the themes presented in the next section are representative of the data collected.

QUALITATIVE RESULTS

The themes are organized into three main categories for presentation. The first category presented under the 'demand theme', describes all the well-being factors related to both the paid and unpaid work of nurses. The second category, presented under the 'control theme,' describes the answers related to well-being and its influence over job and home duties. The third category, presents the participants' perceptions regarding the level of 'support' they receive at home and at work. Following the presentation of the three broad categories, associative analysis of the themes is presented (Ritchie, Spencer & O'Connor, 2003). Such analysis involves detecting and explaining the linkages or patterns between two or more of the themes leading to the development of a conceptual model.

The nurses who agreed to participate in the second phase of the research study were aware of the interview process (see Chapter III). All participants were female nurses working in direct patient care in three selected hospitals. The nurses might know each other especially in the same hospitals which might influence their responses if they would talk about the interviews. In order to avoid the interaction among the nurses, working in the same hospitals (i.e. informing each other about the content of the interview), the nurses were asked not to talk about the interview to their colleagues. In addressing confidentiality the real names of the participants involved in this aspect of the study have been replaced with pseudonyms and listed in the Table 4.17.

Székesfehérvár	Nyíregyháza	Baja
Agnes S.	Katalin N.	Ilona B.
Monika B.	Ilona K.	Eva K.
Zsuzsanna Cs.	Anna B.	Bernadett P.
Katalin V.	Marta Ny.	Tunde K.
Aniko K.	Agota Z.	Erzsebet N.
Judit B.	Valeria P.	Erika S.
Edit T.	Judit M.	Katalin F.
Andrea Gy.	Boglarka T.	Kinga D.
Dora B.	Eszter M.	Mariann A.
Krisztina V.	Eszter Sz.	Judit P.

4.17 Table The acronyms of the participants according to their hospital in phase II interviews

During the interviews the interviewers used the following seven open-ended type questions:

1. What is like to work in the given hospital in direct patient care?
2. What are some of the positive aspects about working here?
3. What are some of negative aspects or difficulties about working here?
4. How much control do you believe you have over: your job, organisation of work?
5. How do you manage some of the pressure or problems that arise here?
6. How can you adjust your home life with your job?

7. How much control do you believe you have over: your home responsibilities, organizing your life at home?

After the analysis of the interviews the main themes and sub themes were grouped according to the frequency of their appearance. The Table 4.18 summarizes the groups in the relation to demand and well-being.

Demand and Well-being	
Themes	Sub-themes
<i>Paid Work</i>	
Climate of work at the hospital ward	<ul style="list-style-type: none"> • conflict with nurses, doctors and families • the recognition and the appreciation you get
The content of the job	<ul style="list-style-type: none"> • emotionally difficult situations • the pace and the amount of work being too fast and too much • good payment
<i>Unpaid Work</i>	
Appreciation of unpaid work by partner or family members	<ul style="list-style-type: none"> • Appreciation of all the work you do by family members
Adjusting home life with job	<ul style="list-style-type: none"> • Not enough free time for yourself and for family • Adjusting the work shift with spouse and with children

Table 4.18 The themes and sub-themes in the demand dimensions identified from nurses' interviews

With regard to paid work, two main themes emerged from the interviews that described the perceived demands that influenced the nurses' well-being. These themes related to the climate of work at the hospital and the content of the day to day work that the nurses carryout. With regard to unpaid work, the two significant themes in this category that influenced the nurses well-being were; the appreciation of unpaid work by a partner or family members, and having the ability to adjust one's home life with work life. These

four emergent themes were further deconstructed to give several sub-themes which are presented below.

The first two sub-themes relating to the climate of work, describes some of the conflicts which they encounter, mostly between nurse colleagues, but sometimes with doctors. Numerous comments indicated that the work climate is strongly influenced by small conflicts. For example, a number of participants talked about interventions carried out on patients not being written up immediately following the intervention and this being reported to the head nurse by colleagues.

Although my nursing colleagues are sometimes odious it is the patients that are the reason why I still remain at the department. With them I do not have a real conflict...they are thankful for caring. Andrea Gy.

After the morning visit the doctors very rarely stay onto the ward because they stay mostly at the out-patient clinic. We do not have a lot of conflict with them and usually if we report about a case which has been already handled by us they agree. They do not have time for small things at the ward... Eszter Sz.

Those nurses who have a higher qualification are not really appreciated by their diploma level colleagues. Although they do almost the same job diploma level nurse, they are jealous of their better payment regardless of the quality of their work.

After graduation from a fulltime bachelor programme, when I got this job at the department of ... the other nurse colleagues with diploma qualification were very suspicious of me. They kept always one eye on my caring...Agnes S.

Many of the participants identified the nature of the work they are involved in being demanding in terms of their well-being. The majority of participants suggested that the caring is very difficult, particularly in areas where the nurses are involved providing care for those with chronic illness, terminal illness and/or when death occurs. In the intensive care setting the nurses' believed the work to be more complex and intensive than in other department and because of this, they felt that their relationship with other team member is closer, like an interviewee states:

In the afternoon and night shifts we hardly see doctors at the intensive care unit if a major trauma or something else happens. Although two doctors are on duty but both of them might be in the operating theatre or at the emergency department. In the unit we have every kind of serious patients whose status is not always stable especially on a very busy work day when a lot of post-operation cases we have. If something happens in the patient status, like ventricular fibrillation we have to interact quickly and defibrillate the patient although it could be only done by doctors. But we can not wait for him... Anna B.

Almost all the participants talked about their pay as a nurse. They were all aware that earned less money than nurses in other European Countries' and that their pay is also very low compared to other jobs in the country. However, only a minority of nurses have left their job for a better pay and requiring lower qualifications, for example being cashier in a big supermarket.

I know one of my nurse colleagues who went last year to work in the newly opening TESCO supermarket for better pay. She always tells that she works shifts and earns more money but it is not what she has learnt or likes but her husband is unemployed and they have two children and they have to live ...Eszter M.

With regard to the themes relating to unpaid work demands and the appreciation of unpaid work by partner or family members the participants discussed the desire to be appreciated for all the work that they did for a partner or family members. The participants were all female nurses who articulated their role as a woman within the family. They described the unpaid work that they carried out in the household as being 'hidden work' which is always there and someone has to manage it. Many of the nurses suggested that they gain a sense of satisfaction if their partner recognizes the work they have done and verbally expresses his thanks for it or demonstrates his appreciation by occasionally preparing a meal. For example one participant stated that:

Sometimes it is very tough after a very busy shift to be a housewife at home. After a week of late shift I am so tired that I need some days to recover. I think after five years of work I can not adopt to changing shifts. I see that my husband is not happy with that but he understands it. I feel very happy if at least on my names day or on my birth days he thanks me for it. Once it has happened ... probably I might look at very tired ... he

prepared a meal for us. I was so surprised that my tiredness went away for some moments immediately...Judit P.

Many of the nurses that were interviewed and who lived with a partner or in a family, were dual income families. That is both partners were in paid employment. This compromised the time that they could spend together as a couple.

They have hardly time for each other because they work a lot beside the main employment as extra work for more money. It happens that they would work outside of the health care system doing jobs like cleaning or house keeping for other people.

I cannot tell you when I last went to the cinema or theatre. During my school days in the diploma course we used to go out with thy girls and boyfriends. After starting to work all this contact went off and we are trying with my husband to save some money for buying our own flat. We live now with my mother-in-low...Eva K.

The majority of the nurses talked of how they appreciated their partner or husband when he did things to help around the house, for example doing the shopping or taking the children to the kindergarten.

We agreed with my husband that when I am on late shift he does the shopping and brings the children to the kindergarten. Fortunately he has a good position as clerk in the local community office and more easily can take time off. Many times when the children are sick they can stay at home with them. In my workplace my colleagues does not like if someone would change her shift...Mariann A.

The second dimension in the DCS model the control was. Its relation to well-being, described by the nurses in the interviews is shown in the Table 4.19.

Control and Well-being	
Themes	Sub-themes
<i>Paid Work</i>	
Organization, planning and decision making of own work at department	<ul style="list-style-type: none"> • Influence over how time is used • Planning vacations and flexible working hours • The freedom to decide how you do your work
----- <i>Unpaid Work</i>	
House keeping responsibilities	<ul style="list-style-type: none"> • Keeping the house looking nice and cared for • Having the amount of responsibility you can handle • Doing creative things around the house
Enough time for family and/or partner and/or yourself	<ul style="list-style-type: none"> • Having enough time and enough energy to enjoy your children/partner • Being free to make your own schedule

Table 4.19 The themes and sub-themes in the control dimensions identified from nurses' interviews

With regard to paid work the nurses who were interviewed felt that having a sense of control was integral to their well-being. The sense of having control appeared to involve organization, planning and decision making within their sphere of work. Each of these aspects were more explicitly described as having influence over how time is used, planning vacations and having flexible working hours, and having the freedom to decide how you do your work.

Several participants discussed the ways in which they managed their duties during their shift. Although there are some routines or regulations at the department which defines the house order, doctors or the status of the patient may change these. Often when unforeseen circumstances occurred that could have been avoided the nurses were left feeling frustrated.

If XY doctor has some free time during the work he wants to visit immediately, not taking into account that nurses plan their daily work too. Of course there are some younger doctors who already recognize to work what nurses do and they used to adjust to best time for their visit. We have learnt nursing planning in the school but if I cannot plan my work in the morning I will always leave some of my duties to the afternoon shift nurse who does not like it. I always like to finish my earlier planned duties in time!...Erzsebet N.

When shift planning occurs the nurses believed that they are given more freedom with regard to covering the department. The introduction of the European Working Time Directive which has sought to limit the number of hours an employee works, has been instrumental in introducing flexible working, for example some nurses have reduced their working hours whilst other have been able to chose which shifts they prefer to work. Additionally the planning of holidays and days off has also been possible for nurses.

After bearing my child the head nurses wanted me to interrupt my maternity leave earlier because they had not enough staff for the ward. She suggested me reduced hours in the beginning for a year...I have chosen to come back earlier from maternity leave but I wanted to work only in the morning shift instead of reduced hours. The money what I can earn in the morning shift is more than in reduced hours and in the afternoon and evening I can be together with my son... I also know that my nurse colleagues do not like it if someone works only one shift or only reduced hours. They think would have more patients to take care of... Katalin F.

Several participants talked about the difficulties they experienced in relation to autonomy and competence in the work environment. It would appear from the data that a higher qualification (degree or specialization) does not necessarily mean a higher level of intervention competency. All expressed concern about being unclear as to what competencies were expected when working in a given department, that is they were unsure of what they are allowed to do or not allowed to do as a nurse working in a specific department. The lack of clarity regarding the use of specific competencies, are articulated by the following participants:

I know that nurses, for example, are not allowed to administer intravenous drugs, not even those who already have a bachelor degree. At our department in the surgery, the doctors are day and night in the operating theatre and they only see the patient on the visit for a very short period when they order drugs and etc. If the patient should wait for the surgeon to get the iv injection e.g. an antibiotic, they might wait until next day. Of course the nurses on duty have to administer iv medication, as well... Boglarka T.

The medical doctors at our ward do not allow us especially in the morning shift to administer iv medicaments. Qualified nurses as we can only take blood sample and give oral medication if the medical doctor ordered it. I have to tell to truth that we have a lot of patients who need real care... so we are not bored... Valeria P.

Two themes emerged from the interviews that related to the amount of control the participants felt they wanted in terms of the home environment. These were control over housekeeping responsibilities and enough time for family and/or partner and/or yourself. A sub-theme of this was the desire to have a nice out-looking home. Several participants suggested that they had a better sense of well being if they have the time and energy to care for their home and keep their own personal standards within the home.

It is energy consuming if I finished my shift and go home and I have to start again doing the washing, cooking and cleaning. On the way home I am happy to go home but in the other moment I think of what else I have to manage... So when I arrive I used to take a deep breath and start with preparing meal for kids and husband... Erika S.

I like it if my flat is tidy. Of course everybody likes it. Unfortunately my partner does not help me in keeping the flat in order. If he comes home from his work, he is lorry driver, he just drops his cloths and everything around in the flat, does not care about his dirty shoes which irritates me very much. Although he is not often at home we used to quarrel a lot... Ilona K.

During busy periods at work and when there is no one to help with the domestic chores the nurses said that they felt frustrated.

We are married since six years but my husband does not help me in the household. He is not able to go to the post and to pay the cheques. Since we have moved into a house in a small village, close to the town where I work in the hospital, he expects me to do everything in the house. Sometimes I fell it is too much for me...Kinga D.

A number of participants were able to find relaxation through ensuring that their home was clean and comfortable and/or by being creative within the home.

I like to change the look of my flat. If I start to clean the flat, new ideas come into my mind how to decorate it...it is relaxing for me if I can put living colour into the flat...Marta Ny.

In the second theme related to unpaid work, the participants spoke about the complex issue of creating enough time for family or partner or for themselves.

I work only in the morning shift because of my small child. I go very early to work for 6 o'clock my husband takes care of him. Although I used to be very tired when I come home if I start to play with him I forget everything what worries me... sometimes it happens that I fall asleep earlier than he ... Boglarka T.

Weekends when the children were smaller we used to go for excursions in the surrounding area in every month if I had not been at work. That was the only way for recovering from the workdays...The children and us enjoyed it very well...Very sad that we do not have time for it nowadays...Edit T.

Some nurses preferred to work afternoon or nights shifts as this allowed them more flexibility to pursue domestic activities.

I like if I work in the afternoon or in the night shift. I can manage a lot of things in the town in the morning. I have an old relative who needs to be cared for, too. She feels sometimes good and sometimes bad. She likes if I go to her and have a small chat with her... Aniko B.

Two themes, supervisors' and colleagues' attitudes that facilitated self development, and local community attitudes towards nurses, described how the support in paid work was perceived. The Table 4.20 shows the sub-themes emerging from interviews.

Support and Well-being	
Themes	Sub-themes
<i>Paid Work</i>	
Supervisor and colleagues attitude, self development	<ul style="list-style-type: none"> • Respecting nurses' abilities • Showing concern about nurses' welfare • Encouraging nurses' professional development
Local community attitudes to nurses	<ul style="list-style-type: none"> • Society view on health care and on nurses' work
----- <i>Unpaid Work</i>	
Interpersonal relations at home	<ul style="list-style-type: none"> • Talking about worrying things to him/her freely and easily • Understanding the demands of your work • Confiding in a person generally

Table 4.20 The themes and sub-themes in the demand dimensions identified from nurses' interviews

Support from supervisors, colleagues and opportunities for advancing your career are perceived as the hospitals' major contribution in promoting the well-being of nurses. The sub-theme, respecting your abilities, describes how the nurses gain a sense of job satisfaction when their qualifications and skilled practice in care delivery, are appreciated by the department they are working in.

When I started to work as a degree nurse in three-shift and already not at a managerial position, a lot of colleagues were very curious what I learnt. If I asked they always told that you should know it from your studies. Once, a patient was in a life-threatening situation, when he suffered heart attack in my ward. Without delay I started CPR and asked for help from other colleagues. Some of the colleagues were very sceptic about it. Doctors and nurses came and the CPR was successful. After this situation those nurses who refused to help me started respect my skills and knowledge... Ilona K.

The second sub-theme, showing concern about your welfare, highlights the importance of being valued by peers and supervisors.

It was good to experience when my husband become ill suddenly that my head nurse phoned me and provided help with changing the shift. She was ready to take over my shift if she cannot find a colleague to substitute me...Later she was interested in how I feel or if I need to talk to someone... Tunde K.

The third sub-theme, encouraging nurses' professional development, shows the importance of professional support for enabling nurses to advance their career and/or self-development.

My immediate boss always supported me to learn further and become a degree nurse. Although she was close to pension but I believe she was honest and held me skilled good enough to accomplish it. I know that some of the nurse colleagues were jealous of me because limited resources were available for further education in the hospital... Erika S.

The second theme with regard to the support inherent in paid work is the local community attitude towards nurses. This encompasses the way in which society views the health care system and, in particular, the way in which nurses are viewed. Numerous comments by the participants indicated that the community holds very inferior opinions about nurses' work. They can only value the tasks, duties and caring if they have first hand experience of what it is like to having basic activities of daily living being carried out on your behalf by another person.

I do not like soap operas where nurses are characterized like nuts or subordinated assistants to doctors without the own ideas. It seems that the tasks that nurses can carry out are limited to carry bad pan or making jokes with patient or rising the sexual interest of male patients. Not enough attention is paid on the real content of their work and the low payment related to other professions in the labour market... Bernadett P.

A complex and overarching theme, which relates to support in unpaid work was that of interpersonal relations at home. In some of the interviews the nurses spoke about the

difficulties they encountered when trying to talk freely with their husband or partner about the things that cause them worry and concern. For example, one participant said:

He has a job very pressures job in an enterprise. He used to be deeply involved in his business. He has no time for me and neither for himself. Some years ago he went on bankruptcy and we had to start everything from the beginning which was a very painful event for him. Our marriage was almost the cost we paid for this. It was a difficult period in our life. It does not change very much recently...Katalin V.

My husband does not give money to me for the household expenses. Although he earns good money he used to play it with his friends. If he comes home, he put his feet up, read a paper or watches the TV.and waits for the dinner. I wanted to talk to him about that things but he has no ear for it. I cannot count for him...Zsuzsanna Cs.

Another aspect of interpersonal communication experienced by the nurses was the lack of understanding on the part of husbands, partners and family, with regard to the demands that are made on them by working as a nurse.

I feel that my husband tries to be patient with me if I am nervous or cannot pay enough attention to him. He is aware of the pressure what we go through sometimes at the department...If I start to speak about my problems he just listen to me without saying anything...I think it helps me a lot...Kinga D.

The third sub-theme highlights the importance of having a confident, that is having someone to rely on and turn to when you find yourself in difficult situations.

Well, I think I have only my partner now to whom I can trust. My mother died several years ago while I learnt at the secondary school. My father needs support now as well. Only my partner is someone who I can confide. During my college days I had a very good girlfriend. We could talk to each other about everything, about family boys, etc. After graduation she moved to another town and our relationship changed. She has married and rarely, we speak... Probably it would be good to have some else talk to but in my colleagues I cannot trust...Monika B.

In summary the theme about nurses' well-being indicated that many staff members, while they like their work, also experience negative emotions and health symptoms as a result of working in a hospital as a staff nurse. Participants who were interviewed described a range of emotions, for example sadness, worry, helplessness, frustration, as a result of working as a nurse and being a mother and/or wife. Many participants, across all departments, commented on how their personal relationships were negatively affected as a result of working as a nurse in a hospital environment. The support in their household work might give nurses more pleasure and comfort which can affect their daily problems in the workplace. Also the lack of support in home (unpaid) work can diminish the good sense of well-being. If the nurses' partner or husband does not help in keeping the household nurses may feel under bigger pressure in the workplace as well.

DISCUSSION OF THE RESEARCH FINDINGS

The aim of the research project was to test the conceptual model developed in phase I. of the study by examining the impact of aspects of paid and unpaid work within the demand-control-support dimensions of well-being of hospital based nurses in Hungary. In phase II, ten broad themes emerged from interviews thus allowing the expansion of the research findings through utilising qualitative research methodology.

Chapter V. presents a discussion of the key findings of the present research and provides an overall conclusion.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Considerable research has examined how work organizational climate and home atmosphere affect the attitudes and behaviours of employees. Fewer studies have explicitly focused on health care workers per se and nurses' in particular and concepts of well-being in the context of paid and unpaid work life. Research has not, however, examined how the interrelationship of paid (job) and unpaid (home) work impacts on the behaviour and felt experiences of nurses on an individual and organisational level. The aim of the present research was to identify different dimensions of job and home life of hospital nurses and to examine the impact of these dimensions on the nurses' experience of positive and negative well-being.

The goals of the present project were achieved using a two-phase, exploratory, mixed methods design, combining qualitative and quantitative approaches to research. In the quantitative study (the first phase) developed version of the Karasek's Demand-Control-Support model was tested in the workplace and home work context of in-hospital nurses working in six Hungarian hospitals. The qualitative method (the second phase) of the project allowed for the collection of rich descriptions of the experiences thirty nurses working in 5 hospitals as a nurses with direct patient care contact.

This chapter firstly provides an overview of the model developed in the project phase I, explored in the phase II, and summarises the major findings of these two phases. Next the theoretical and practical implications of the findings are discussed. The strengths and limitations of the phases are also acknowledged, and implications for further research presented. The chapter closes with an overall conclusion of the research programme.

AN OVERVIEW OF THE FINDINGS

Nurses' well-being in the context of paid and unpaid work is reported in few studies (Walters, 1996). In the Hungarian literature only one study deals with the occupational health of nurses in the Southern part of the country (Pikó, 1999). Nursing is still a female dominated job not only in Western European countries but also in Hungary (Source: ETI, 2004). Often female nurses have to contend with a second unpaid and mostly invisible job, that of housewife or mother or partner or caregiver for family

members (Simon et al., 2004). In order to gain a greater understanding of what being a nurse might mean in this context and the impact this might have on a sense of individual well-being, a two-phase study was conducted in six regional Hungarian hospitals. This involved 796 nurses who worked in a role with direct patient contact and who had been in that role for more than one year.

The conceptual framework used in the phase I survey was based on Karasek's DC and Johnson's DC(S) interactional theory for paid work in an organisation. In comparison to all other models, empirical testing of the DC(S) model has dominated the occupational stress research in the past 15 years. This is probably in part due to the ease with which the highly specified three dimensions of the model can be researched. Conversely, the model has been criticised for its relative simplicity and predictably, and its lack of attention to psychological processes (de Rijk et al., 1998).

The model attracts strong empirical support and has good face value in the workplace (Theorell, 1998). However modern work demands are squeezing out "passive" and "relaxed" jobs (for example, scientists increasingly compete for funding, physicians participate in settings of corporate managed care), which may lead to two classes of occupations: those with high control or those with low control, but all with high demands (Belkic et al., 2000).

Danna and Griffin (1999) developed a framework for organizing and directing future theory, research, and practice regarding health and well-being in the workplace but in their work the unpaid aspects of work was not sufficiently emphasised. Some smaller scale studies of the DC model in homogeneous samples have found primarily main effects of demands and control (Hurrell & McLaney, 1989; Melamed, Kushnir & Meir 1991; Perrewe & Anthony, 1990; Spector, 1987) but they neither were expanding the demand and control dimension on unpaid environment.

The approach used in this study went further in expanding the model for use in the unpaid home work setting. Nurses' groups were identified not only in the work but also in the home setting on a fairly homogenous sample of Hungarian female nurses.

First, in the four groups created on the demand and control (DC) dimensions, a linear regression model was run. All groups were compared to high-strain model where the

demand is high and the control is low. This is the “worst” group because they are at a higher risk of harming health effects (Wharton & Erickson, 1995; Hall, 1992). After adding the social support dimension to the former created groups, for the eight new groups of demand-control-support (DCS) dimensions a separate linear regression model was run. All the groups were compared to iso-strain groups, where beside the high-strain unpaid home or job work, the support is low, too (Johnson, 1991).

These effects of work has been proved by a study of 33,698 working women (nurses) in the United States found high strain workers showed lower vitality and mental health, higher pain, and increased risk of both physical and emotional limitations than workers in ‘active jobs’. Iso-strain (high strain-isolated) work increased these risks further (Amick et al., 1998).

In this research the results of the first linear regression models were analysed firstly. It turned out that the low-strain group of examined nurses (low demand and high control group) compared to high-strain nurses (high demand and low control group) in paid and unpaid work may feel changes in their sense of positive and negative well-being. The active group of nurses (high demand and high control group) are likely to feel significant changes only in their positive well-being. Those nurses who are in the passive group (low demand and low control group) are more likely to have their sense of negative well-being affected.

The social support dimension plays an important role in this study, both in the context of paid and unpaid (home) work, as well. It seems that support has a meaningful impact in experiencing the sense of well-being for each group, independently from the amount of the support (high or low). Based on the second models, the support in the unpaid (home) aspect of working life seems to be more powerful for nurses’ sense of well-being than in the paid work experiences. The interviews revealed that beside the ‘supervisor and colleagues’ attitudes and the possibility for self development’ as the forms of support in the workplace, the ‘interpersonal relations at home’ might also affect the sense of well-being more frequently. This was especially the case where the unpaid work support at home is higher, and then both positive and negative well-being might be influenced significantly. This can be seen in all groups (passive, active, low-strain and high-strain).

Generally, the high support in each group where it has a meaningful effect, will impact upon both dimensions of well-being. However, low support does not show such a general rule. The high workplace support in the high-strain (high demand and low control) group did not affect the sense of well-being among nurses, but in the home work both aspects of well-being could be influenced.

After seeing the separate effects of the different regression models for paid and unpaid circumstances a common linear regression model which highlights the most important and strongest dimensions of working of in the sample participating nurses was used. How the high level of home support influences both aspects of well-being is most demonstrable among nurses who belong to the high demand and low control (high strain) group.

In the common linear regression model it was found that active nurses' groups (high demand and control group) who get high support both in paid and in unpaid work experiences reported that home support was important to their overall sense of positive well-being. The home support is twice as important for them as the work support. However, nurses who were working under a high pressure (high demand and low control) but get appropriate home support, seem somehow balanced.

Nurses who experience low demand and low control (passive group) getting low support either from home or from work, did not have their well-being significantly affected in either a negative or a positive way. In the same passive group (low demand and low control), if the support is strong enough from either home or work, it can influence the sense of well-being. The home influence is stronger in negative well-being but the job has more impact on positive well-being.

As stated already in the literature, the nurses who work under low strain (high control with low demand) both positive-negative well-being are significant for them

These survey results provide information that can be used to contribute to the development of evidence-based workplace health strategies aimed at improving the health and well being of nurses, as well as, support the development of government policies.

For improving healthier workplace in the late 1990s, the UK government introduced an action through Health and Safety Executive (HSE, 1999a, 1999b, 2000). Health and Safety in Work was in the focal point of their work in order to tackle work stress in the workplaces. The European Union has also begun a project for visioning the future's workplace in EU. This activity pays a lot of attention to Work-life balance in the European Union countries (Foundation Forum, 2004).

In many European Union countries attaining a better balance between the demands of work and personal life and finding new ways of organizing individual working time over the life span is crucial. Therefore in the forefront of these activities the time is a key element in reaching good balance between work and life.

With the EU membership, the Hungarian Government had to face new obstacles in the health care system, like to European Working Time Directive which limited the number of working hours. With the same human resource in the health care the problem was difficult to solve. Therefore, the Ministry of Health with other professional organization developed a "green book" about the current situation of the Hungarian health care. In this book the Ministry forced to introduce healthier workplaces in the health care sector, and other forms of maintaining health care staff in the field (Varga, 2003). These kinds of efforts can be very important for nurses although the implementation of the proposed steps a not yet done.

STRENGTHS, LIMITATIONS, AND SUGGESTIONS

The overall goals of the present research programme were to identify, from nurses' perceptions, the salient aspects of paid and unpaid work and examine the impact of those factors (dimensions) on their positive and negative aspects of well-being. One of the major strengths of the present research programme was the use of a mixed methods design to achieve these goals. In the first phase the quantitative study strengthened the research programme by testing the modified conceptual model of Karasek and Johnson for paid and unpaid work. A quantitative approach also allowed the implementation of measures to ensure confidentiality and anonymity for the staff participating in the research and provided for the staff to voluntarily choose to participate, and to do so in privacy. Over the last several years nurses' has received considerable negative media coverage in relation to their work, for example the account of the black angel a nurse working in Hungary who murders her patients (Rozsos, 1995). A lot of attention is paid

to nurse migration patterns, for example, those nurses who leave the country and migrate to Western European countries or leave the profession for a better payment in other services outside of health care (Szloboda, 2005).

Another strength of this study was in the development and validation of the Karasek's and Johnson's DCS model into the unpaid (home) work dimension of the life which is in many cases like a second job for employed people. The majority of nurses faced with undertaking such invisible work were female. The DCS model had not previously been used for unpaid work in the literature on nurses working life.

It is important to note that while causality may be inferred among the constructs in the model used, cross sectional surveys that use path analytic techniques cannot establish proof of causality. A limitation of the present research programme, therefore, is that the analysis in the first phase was based on cross-sectional data. The possible presence of common method variance is also a concern with such designs. Harman's single factor test (Harris & Mossholder, 1996), however, was used to address this concern. If method variance is largely responsible for the co-variation among the measures, a single factor should substitute the data very well. The structural variations between the variables of the conceptual model tested in this phase failed to demonstrate support for a one-factor solution, thus giving more confidence to the results.

Longitudinal research, however, is needed to assess issues of causality (Spreitzer, 1995). The causality of relationships might be addressed in future research that assesses changes in perceptions of well-being before and following some kind of organizational intervention in order to explain the degree to which organizational changes produce motivational changes in nurses (Spreitzer, 1995). Alternatively further research could assess nurses' perceptions of well-being at one time, and then test the strain and work attitudes, such as job satisfaction or commitment at a later time (Spreitzer, Kizilos & Nason, 1997).

Another possible limitation is the representativeness of the sample in the quantitative part of the programme. In fact, both phases of the research programme required the full co-operation of hospital managers in the identified hospitals. Any concerns about the representativeness of the sample, especially for this part of the programme were reduced, however, by the support of nursing directors.

In the second phase of the programme confidentiality and anonymity were assured and rapport was built with the interviewer, all staff members who were interviewed described their paid and unpaid experiences in an open way, and willingly discussed both the negative and positive issues related to working in hospital and at home.

The response rate in the first phase was about 61% percent which is acceptable ratio in a survey. To increase the generalisability of the results the mixed method approach was used. As suggested by Bryman (1988), the results of the qualitative study were compared with, supported and meaningfully enriched by the findings of qualitative study. In using a much larger sample than that used in the study, future studies could replicate the present research programme using Multi-level Modelling (Rowe, 2000) to ascertain the role of organizational level differences.

Although the literature in the field of paid and unpaid work deals with gender differences in our study only female nurses were involved creating a homogenous sample concerning the gender. Further investigation might be needed if the role of male nurses in the in-hospital setting was to be also examined.

FINAL CONCLUSIONS

Work is usually considered to be paid employment. It is generally accepted, however that work includes not only paid work, but also unpaid, sometimes hidden, work including domestic and child care work and voluntary work. Apflebaum (1992, p. 1) states that 'Work is like the spine which structures the way people live, how they make contact with material and social reality, and how they achieve status and self-esteem'. In general, paid work has been found to be important for well-being. However, paid work is only one aspect of life and there is mounting evidence that multiple roles have the potential to create multiple sources of well-being (Barnett, 1998; Edwards & Rothbard, 2000; Ruderman et al., 2002).

Previous occupational stress research has examined paid employment, mostly of men, assuming that the home is a less stressful working environment than that found in the paid work environment. An emerging body of research is examining how various combinations of employment and family roles (unpaid work) affect women's general well-being (De Koninck, 1984). Long hours of household work can cause fatigue,

depression and other illness (Killien & Brown, 1987). Danna and Griffin (1999) paint a complex picture between the well-being and the workplace effects in their framework. They involved a lot of aspects of home life into the framework showing up the importance of non-work satisfaction but the work done in home environment e.g. for the family, influencing the employee's well-being and health as a whole not enough emphasized.

In this study it was shown how the unpaid work environment influences nurses' well-being and how the social support can improve nurses' well-being either in paid and in unpaid work. Among Hungarian nurses the individual experiences of well-being, like in Johnson's study (1991) show the importance of supportive environment either in paid or unpaid context. A clear correlation is detectable between well-being and the presence or absence of social support around nurses. The unpaid and the paid sphere of life have a mutual effect on overall well-being, too which let to draw the conclusion stronger support from both home and work life can retain nurses in the profession and prevent them leaving nursing. In the future based on the former stated results, new guidance for workplace should be developed and implemented.

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APPENDICES

APPENDIX A

The Questionnaire of the Survey

NUMBER	<input type="text"/>	<input type="text"/>	<input type="text"/>
INSTITUTE	<input type="text"/>	<input type="text"/>	
DEPARTMENT/WARD	<input type="text"/>	<input type="text"/>	

<p>QUESTIONNAIRE</p> <p>THE EFFECTS OF PAID AND UNPAID WORK ON NURSES' WELL-BEING IN DIFFERENT CLINICAL SETTINGS</p> <p>2003.</p>
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Dear Responder! (This should be read to all participants!)

This survey is a part of a clinical research project, which aims to explore the effects of paid and unpaid work of nurses on their well-being. The answers will be handled *confidentially*.

The questionnaire consists of *five* parts. Each part deals with an aspect of nurses' work, and the impact on their well-being. Your opinions of your experience will contribute to this picture. We hope that the survey with your participation will promote solutions to current problems in nursing. That is may I seek your contribution with completing the questionnaire.

József BETLEHEM
Senior Lecturer
Researcher

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Tel: 72-535-994; Fax: 72-535-997

(The questions in the frame should be completed by the interviewer!)

x1. Interviewer's name, address, phone number at workplace/home:	
Name:	<input type="text"/>
Address: city	street №
Phone number (workplace): (home):	
x2. Name and address of the hospital and department/ward:	
Name of the hospital:	<input type="text"/>
Name of the department / ward:	<input type="text"/>
Address of the hospital: city	street №
Address of the department / ward: city	street №

PART I. WORK – COLLEAGUES

1.1. In which *department/ward* do you work in the hospital? (Please give the official name of the department/ward!) □ □ □ □
 (name of the department/ward)

1.1.1. How long have you been working at this department/ward?

a. since..... month(s) **OR** b. since..... year(s) □ □ □ □

1.2. What is your *practice area* in the hospital? (Please give the official name of the the practice area!)
 (name of the sphere of activity) □ □ □ □

1.3. Do you work *full-time* or *part-time* in this practice area?

1 in full-time 2 in part-time

1.4. Are you *appointed* or do you work as an *agency/bank nurse* in this position?

1 appointed without end 2 with contract for a given period (replacing)

1.5. Is this your *main job* or do you work as an *agency/bank nurse* in other areas?

Main job Agency/bank
 1 2

1.6. How long have you been working permanently at this position *in this hospital*?

a. since..... month(s) **OR** b. since..... year(s) □ □ □ □

1.7. Usually what *shift's* do you work in this department/ward?

Always morning shift	Always afternoon shift	Always night shift	Morning and afternoon shift	Morning and night shift	Afternoon and night shift	Three shifts	Two shift (morning and night)	Other shift
1	2	3	4	5	6	7	8	9

a. If you work in other shift please write it down! □ □

1.8. In thinking about your current job, to what extent, if any, do you find each of the following REWARDING:	<i>Extremely rewarding</i> 5	<i>Considerable rewarding</i> 4	<i>Somewhat rewarding</i> 3	<i>Little rewarding</i> 2	<i>Not at all rewarding</i> 1
A. ... Helping other people	5	4	3	2	1
B. ... Being needed by other people	5	4	3	2	1
C. ... Having an impact on other people's life	5	4	3	2	1
D. ... Being able to make decisions on your own	5	4	3	2	1
E. ... Being able to work on your own	5	4	3	2	1
F. ... Having the authority you need to get your job done without having to go to someone else for permission	5	4	3	2	1
G. ... The freedom to decide how you do your work	5	4	3	2	1
H. ... Challenging or stimulating work	5	4	3	2	1
I. ... Having a variety of tasks	5	4	3	2	1
J. ... The sense of accomplishment and competence you get from your job	5	4	3	2	1
K. ... The job reflects your interest and skills	5	4	3	2	1
L. ... The opportunity for learning new things	5	4	3	2	1

1.9. In thinking about those *nurse colleagues* whom you work with, to what extent, if any, do you find the "atmosphere" at your working place *friendly*?

<i>Extremely friendly</i> 5	<i>Considerable friendly</i> 4	<i>Somewhat friendly</i> 3	<i>Little friendly</i> 2	<i>Not at all friendly</i> 1
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1.10. How often do your nurse colleagues *help* you to improve your practice?

<i>Very often</i> 5	<i>Often</i> 4	<i>Sometimes</i> 3	<i>Rarely</i> 2	<i>Never</i> 1
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1.11. How often would you discuss your *personal problem* with your nurse colleagues?

<i>Very often</i> 5	<i>Often</i> 4	<i>Sometimes</i> 3	<i>Rarely</i> 2	<i>Never</i> 1
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1.12. How often do you meet *one or more nurse colleague(s)* outside your workplace? (for social activities)

<i>Almost every day</i> 6	<i>Weekly, about 2-6 times</i> 5	<i>Weekly about once</i> 4	<i>Monthly about once</i> 3	<i>Less than monthly</i> 2	<i>Never</i> 1
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1.13. In thinking about your current nurse colleagues, to what extent, if any, do you find each of the following REWARDING:	<i>Extremely rewarding</i> 5	<i>Considerable rewarding</i> 4	<i>Somewhat rewarding</i> 3	<i>Little rewarding</i> 2	<i>Not at all rewarding</i> 1
A. ... The image your profession has to the society	5	4	3	2	1
B. ... Nurses sticking up for each other	5	4	3	2	1
C. ... That the people you work with are important in your life	5	4	3	2	1
D. ... The competence of other nurses	5	4	3	2	1
1.14. In thinking about your immediate supervisor, to what extent, if any, does she/he...	<i>Always</i> 5	<i>Regularly</i> 4	<i>Sometimes</i> 3	<i>Little</i> 2	<i>Not at all</i> 1
A. ... value your work in the same way as you?	5	4	3	2	1
B. ... show concern about the welfare of those under them?	5	4	3	2	1
C. ... represent nurses' concerns?	5	4	3	2	1
D. ... like you (related to the job)?	5	4	3	2	1
E. ... respect your abilities?	5	4	3	2	1
F. ... encourage your professional development?	5	4	3	2	1
1.15. In thinking about the AMOUNT OF CONTROL you have in your current work situation, to what extent, if any, do you have:	<i>Complete</i> 4	<i>A lot</i> 3	<i>Some</i> 2	<i>Hardly any</i> 1	
A. ... Influence over the planning work	4	3	2	1	
B. ... Flexible working hours	4	3	2	1	
C. ... Influence over how time is used	4	3	2	1	
D. ... Influence over the planning of work breaks	4	3	2	1	
E. ... Influence over the planning of vacations	4	3	2	1	
F. ... Flexible working hours	4	3	2	1	
G. ... Freedom to receive a phone call during working hours	4	3	2	1	
H. ... Freedom to receive a private visitor at work	4	3	2	1	
I. ... Varied task content	4	3	2	1	
J. ... Varied work procedures	4	3	2	1	
K. ... Possibilities for on-going education as a of the job	4	3	2	1	
L. ... Influence over the selection of a supervisor(s)	4	3	2	1	
M. ... Influence over the selection of co-workers	4	3	2	1	

1.16. How able are you to decide how to carry out your job?

Extremely able 1	Able 2	Somewhat able 3	Little able 4	Unable 5
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1.17. How often can you make practice decisions on your own?

Very often 1	Often 2	Sometimes 3	Rarely 4	Never 5
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1.18. How often do you feel you are invited to participate in the decision making process affecting your practice?

Very often 1	Often 2	Sometimes 3	Rarely 4	Never 5
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1.19. How much of influence do you have on the method of doing your work?

Almost complete 1	A lot 2	Some 3	Hardly any 4	Nothing 5
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1.20. How often does your work require to reconcile or discuss your duties with other people before carrying out them?

Very often 5	Often 4	Sometimes 3	Rarely 2	Never 1
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PART II. WORKLOAD – SALARY – APPRECIATION

2.1. In a normal week how many days do you usually work in your main job?

..... day(s)

a. On an average day how many hours do you usually work?

..... hours

2.2. In a normal month how many hours overtime do you usually work in your main job?

..... average overtime in a month

0 no overtime

2.3. Thinking on your last three month how overloaded have you felt?

Very often I had slack periods 1	Often I had slack periods 2	My work load was appropriate 3	I had to hurry in order to finish my work in time 4	I had so many duties that I could not cope with them 5
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2.4. How often can you finish all your work duties in the shift?

Very often 1	Often 2	Sometimes 3	Rarely 4	Never 5
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2.5. IN THINKING ABOUT YOUR CURRENT JOB, to what extent, if any, is each of the following a CONCERN:	<i>An extreme concern</i> 5	<i>A considerable concern</i> 4	<i>Some-what concern</i> 3	<i>Little concern</i> 2	<i>Not at all concern</i> 1	<i>Does not apply</i> 0
A. ... Having too much to do	5	4	3	2	1	0
B. ... The job is taking too much out of you	5	4	3	2	1	0
C. ... Having to deal with emotionally difficult situations	5	4	3	2	1	0
D. ... The pace of work being too fast	5	4	3	2	1	0
E. ... Dealing with a lot of duties which are not meeting your expectation against nursing	5	4	3	2	1	0
F. ... The job is not using your skills	5	4	3	2	1	0
G. ... Having to do things on your job that are against your better nursing judgement	5	4	3	2	1	0
H. ... Adjusting to changing shifts	5	4	3	2	1	0
I. ... Undertaking weekend (Saturday, Sunday) shifts	5	4	3	2	1	0
J. ... Having too much overtime.	5	4	3	2	1	0
K. ... Being exposed to illnesses	5	4	3	2	1	0
L. ... The job is very stressful	5	4	3	2	1	0
M. ... The job is physically strenuous	5	4	3	2	1	0
N. ... The job is emotionally difficult	5	4	3	2	1	0
O. ... Having too much responsibility in your job	5	4	3	2	1	0
P. ... Lack of clarity of personal accountability within the department	5	4	3	2	1	0
Q. ... Undertaking extra shifts	5	4	3	2	1	0
R. ... The job affects your family (personal) life negatively	5	4	3	2	1	0

2.5. IN THINKING ABOUT YOUR CURRENT JOB, to what extent, if any, is each of the following a CONCERN: (cont.)	<i>An extreme concern</i> 5	<i>A considerable concern</i> 4	<i>Some-what concern</i> 3	<i>Little concern</i> 2	<i>Not at all concern</i> 1	<i>Does not apply</i> 0
S. ... The physical conditions of your job (noise, temperature etc) are stressful	5	4	3	2	1	0
T. ... Being exposed to illness or accidents injury	5	4	3	2	1	0
U. ... Not meeting the standards for professional practice	5	4	3	2	1	0
V. ... Nursing technical aids are not always available	5	4	3	2	1	0
W. ... Resources (dressings, etc) are not always available and their supply can be unpredictable	5	4	3	2	1	0

2.6. Do you work anywhere else in addition to your main employment for which you are paid?



2.7. If you have a second job and/or another paid job beside your main job how many days do you usually work on an average week?

a. In an average week how many days do you usually work in non-health care paid or voluntary job

..... days

aa. On such a day how many hours would you usually work?

..... hours

ab. What is this job?
(Please write it down!)

.....

.....

.....

b. In an average week how many days do you usually work in a other health care job

..... days

ba. On such a day how many hours would you usually work?

..... hours

bb. What is this job?
(Please write it down!)

1.

2.

2.8. How satisfied are you with the additional benefits you receive (in addition to your salary) compared to what other hospitals offer their staff?

Extremely satisfied 5	Very satisfied 4	Somewhat satisfied 3	Hardly satisfied 2	Not at all satisfied 1
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2.9. How satisfied are you with your salary compared to what is paid to individuals working in non-health care jobs?

Extremely satisfied 5	Very satisfied 4	Somewhat satisfied 3	Hardly satisfied 2	Not at all satisfied 1
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2.10. In thinking about your job to what extent do the following make you feel rewarded?	<i>Extremely</i> 5	<i>Considerable</i> 4	<i>Somewhat</i> 3	<i>Little</i> 2	<i>Not at all</i> 1
A. ... the recognition you get	5	4	3	2	1
B. ... the appreciation you get	5	4	3	2	1
C. ... your pay is good compared to other people in your field	5	4	3	2	1
D. ... caring for sick people is the first priority in your department	5	4	3	2	1
E. ... gives an appropriate income?	5	4	3	2	1
F. ... there is a positive image of nursing in society	5	4	3	2	1
G. ... there is a positive image of nurses amongst doctors	5	4	3	2	1
H. ... there is a positive image of nurses amongst technical nursing aides	5	4	3	2	1
2.11. IN THINKING ABOUT YOUR CURRENT JOB, to what extent, if any, is each of the following a CONCERN	<i>Extremely</i> 5	<i>Considerable</i> 4	<i>Somewhat</i> 3	<i>Little</i> 2	<i>Not at all</i> 1
A. ... Lack of support from your supervisor(s) for what you need to do your job?	5	4	3	2	1
B. ... Your supervisors lack of competence	5	4	3	2	1
C. ... Your supervisors lack of appreciation of your work	5	4	3	2	1
D. ... Your supervisors have unrealistic expectations of your work	5	4	3	2	1

2.12. Work can be recognised in many ways. How appropriately do you think your work is rewarded in your hospital (in terms of recognising qualifications, knowledge, skills and experiences).

To what extent do you find each of the following REWARDING:	<i>Extremely rewarding</i> 5	<i>Considerably rewarding</i> 4	<i>Somewhat rewarding</i> 3	<i>Little rewarding</i> 2	<i>Not at all rewarding</i> 1
A. ... the money you get?	5	4	3	2	1
B. ... the allocation of extra resources (benefits etc...)?	5	4	3	2	1
C. ... professional promotion (getting in a better position)?	5	4	3	2	1
D. ... the recognition (i.e. your boss gives you explicit rewards)?	5	4	3	2	1
E. ... having a good working environment (i.e. rest room for nurses, changing room, shower, etc.)?	5	4	3	2	1

2.13. Do you have at your ward/department ...?	<i>YES</i> 1	<i>NO</i> 2
A. ... separate rest room for nurses?	1	2
B. ... separate changing room?	1	2
C. ... WC for staff?	1	2
D. ... Shower facilities for staff?	1	2

2.14. HOW OFTEN do the following situations occur in your PRESENT WORK SETTING?	<i>Very often</i> 5	<i>Often</i> 4	<i>Sometimes</i> 3	<i>Rarely</i> 2	<i>Never</i> 1
A. Death and dying.	5	4	3	2	1
B. Conflict with doctors.	5	4	3	2	1
C. Feeling inadequately prepared for challenging situations.	5	4	3	2	1
D. Lack of support in different difficult situations.	5	4	3	2	1
E. Conflict with other nurses.	5	4	3	2	1
F. Problems with workload.	5	4	3	2	1

2.19. To what extent do you feel each of the following situations has played in influencing you to remain in nursing?

	<i>Very important</i>	<i>Important</i>	<i>Somewhat important</i>	<i>Little important</i>	<i>No importance</i>
	5	4	3	2	1
A. Challenging work	5	4	3	2	1
B. No other options to find another job	5	4	3	2	1
C. Helping people	5	4	3	2	1
D. Financial necessity	5	4	3	2	1
E. People I work with	5	4	3	2	1

2.20. The following statements can be used to express your satisfaction with your work. To what extent do you agree or disagree with the statements?

	<i>Totally agree</i>	<i>Agree</i>	<i>Agree and disagree</i>	<i>Disagree</i>	<i>Totally disagree</i>
	5	4	3	2	1
A. I very much enjoy my work.	5	4	3	2	1
B. If I could change again, I probably would do another job.	5	4	3	2	1
C. I am enthusiastic about being a nurse.	5	4	3	2	1
D. My job is boring.	5	4	3	2	1
E. I do not think of finding another job.	5	4	3	2	1
F. My working is inspiring.	5	4	3	2	1
G. I am not really suitable for my job.	5	4	3	2	1
H. I am fairly satisfied with my job.	5	4	3	2	1

2.21. All things considered, HOW SATISFIED would you say you are with your job as a nurse?

Very satisfied	Satisfied	Somewhat satisfied	Not satisfied	Not at all satisfied
5	4	3	2	1

PART III. FAMILY BACKGROUND – HOME LIFE
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3.1. Where did you spend most of your childhood?

Farm 1	Village 2	Town 3	City 4	Budapest 5
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3.2.

a. When you were child what kind of work did your father (stepfather) and mother (stepmother) do?

	Agricultural physical work 1	Non agricultural physical work 2	Intellectual work 3	Other (Please specify!) 4	Not working 5	homemaker 6	Do not know 0
a1. Father	1	2	3	4	5	6	0
a2. Mother	1	2	3	4	5	6	0

b. What was their highest qualification?

	Less than primary school 1	Primary school 2	Vocational school 3	GCSE and vocational training 4	GCSE 5	B.Sc./B.A. 6	M.Sc./M.A. 7	Do not know 0
b1. Father	1	2	3	4	5	6	7	0
b2. Mother	1	2	3	4	5	6	7	0

3.3. What is your present marital status?

Married, living with spouse ↓	Living with partner ↓	Widow ↓	Divorced ↓	Living separately ↓	I have never been married/had a partner (single) 6 →	Follow with s.d. question
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a. What kind of work does your partner do (or did)?

Agricultural physical work 1	Non agricultural physical work 2	Intellectual work 3	Other (Please specify) 4	Not working 5	Homemaker 6
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b. What is the highest qualification of your spouse/partner?

Less than primary school 1	Primary school 2	Vocational school 3	GCSE and vocational training 4	GCSE 5	B.Sc./B.A. 6	M.Sc./M.A. 7
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c. Is your partner/spouse working

Full-time 1	Part-time 2	Unemployed 3	Retired 4	Working whilst retired 5	Homemaker 6	Other 7
0 Does not apply						

3.4. How many children do you have who are living with you?

..... Number of children

0 None

99 Not living with you

} → Follow with 3.5. question
J

3.4.1. Children living with you who are (Please give the number!)

a. Less than 6 years of age.....

c. 14 – 17 years of age

b. 7 – 13 years of age.....

d. 18 years of age and over

3.5. How many other adult people are living with you who you provide care for

..... Number of people

0 No other adult

3.6. How many other adult people that you provide care for but who do not live with you?

..... Number of people

0 No other adult

3.7. How many children do you have who you provide care for but they do not live with you?

..... Number of children

0 No children —→ Follow with 3.8. question

3.7.1. Number of children not living with you ... (Please give the number!)

a. Less than 6 years of age.....

c. 14 – 17 years of age

b. 7 – 13 years of age.....

d. 18 years of age and over

3.8. What type of accommodation to you live in?

Nursing residence	In lodgings	Rented flat	Owned flat	Own family home	Other (Specify!)
1	2	3	4	5	6

a. Where is your current accommodation located?

In the same city as the hospital 1	In another city 2	In farm/village 3
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b. Comfort grade of the flat?

Fully modernised 1	Main services 2	Half main services 3	Without main services 4
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c. How many rooms do you have?..... Number of room(s)

d. How many people are living in the accomodation? (Count yourself, too!) _____ person(s)

3.9. On an average day how many times do you need to get to your workplace?

Less than 10 min. 1	10-14 min. 2	15-29 min. 3	30-59 min. 4	1 - 2 hours 5	More than 2 hours 6
------------------------	-----------------	-----------------	-----------------	------------------	------------------------

3.10. In thinking about your relationship with your partner or spouse, please answer the following questions:

	Totally 5	Fairly 4	Somewhat 3	Little 2	Not at all 1
A. ... To what extent do you talk to him/her about things that worry you?	5	4	3	2	1
B. ... To what extent do you feel you can talk to him/her quite easily?	5	4	3	2	1
C. ... To what extent does she/he understand the demands of your work?	5	4	3	2	1
D. ... How well do you and your partner/spouse get along in general?	5	4	3	2	1
E. ... To what extent do you confide in him/her generally?	5	4	3	2	1

OR

0 does not apply

3.11. Do you have someone OTHER THAN A PARTNER in whom you can confide (eg a friend, relative, etc.)? (Please circle the number of your answer.)

1 YES
↓
2 NO → Follow with 3.12. question

a. To what extent do you talk to this person about things that worry you

Totally 4	Fairly often 3	Sometimes 2	Not very often 1
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3.12. <i>In thinking about your HOME RESPONSIBILITIES, to what extent, if any, is each of the following a CONCERN:</i>	I am extremely concerned	I am considerably concerned	I am sometimes concerned	Little concern	Does not Concern me at all	Does not apply
	5	4	3	2	1	0
A. ... Not enough free time for family	5	4	3	2	1	0
B. ... Not enough free time for yourself	5	4	3	2	1	0
C. ... Having to structure or plan your time	5	4	3	2	1	0
D. ... Disliking housework	5	4	3	2	1	0
E. ... A lack of challenge	5	4	3	2	1	0
F. ... Not being able to set your own goals	5	4	3	2	1	0
G. ... Lack of appreciation of all the work you do by family members	5	4	3	2	1	0
H. ... Having to divide yourself up in pieces and juggle things	5	4	3	2	1	0
I. ... Not contributing enough to the family income	5	4	3	2	1	0
J. ... Being too available to other people	5	4	3	2	1	0
K. ... adjusting the work shift with spouse	5	4	3	2	1	0
L. ... adjusting the work shift with children	5	4	3	2	1	0

3.13. In thinking about your HOME RESPONSIBILITIES, to what extent if any, is each of the following a REWARDING:

	Extremely rewarding	Considerably rewarding	Sometimes rewarding	Not very rewarding	Not at all rewarding
	5	4	3	2	1
A. ... Being free to make your own schedule	5	4	3	2	1
B. ... Having enough time and enough energy to enjoy your children/partner	5	4	3	2	1
C. ... Doing creative things around the house	5	4	3	2	1
D. ... Having the amount of responsibility you can handle	5	4	3	2	1
E. ... Keeping the house looking nice and cared for	5	4	3	2	1
F. ... The appreciation you get from your family	5	4	3	2	1
G. ... A sense of competence, of being good at what you do	5	4	3	2	1
H. ... Being able to pursue your interest	5	4	3	2	1
I. ... Having other people enjoy your home	5	4	3	2	1
J. ... Being available to do things for others	5	4	3	2	1

3.14. On an average week how many hours do you spend with:

- a. your main job? hour(s)/week
- b. traveling? hour(s)/week
- c. other money making activities? hour(s)/week
- d. home making activities, child care? hour(s)/week
- e. activities around house? hour(s)/week
- f. other regular activities? hour(s)/week

3.15. On an average week how many hours do you spend on what you like doing outside of work?

..... hour(s)/week

3.16. Do you expect to make any of the following changes in the near future?

	<i>Yes</i>	<i>No</i>	<i>Does not apply</i>
	1	2	0
A. Changing your job within nursing	1	2	0
B. Leaving nursing for another job	1	2	0
C. Going back to the school	1	2	0
D. Getting married/living with a partner	1	2	0
E. Getting a divorce/leaving your partner	1	2	0

PART IV. LIFESITUATION – FEELING – HEALTH STATUS

4.1. How often...

	<i>Very often</i> 4	<i>Often</i> 3	<i>Rarely</i> 2	<i>Never</i> 1
A. ... do you have to work quicker in order to finish your duties in time?	4	3	2	1
B. ... do you worry about the future?	4	3	2	1
C. ... do you have the opportunity to do what you like?	4	3	2	1

4.2. Thinking about the past ten years *HOW STRESSFUL* do you consider your life to have been?

<i>Stress free</i>	1	2	3	4	5	6	7	8	9	10	<i>Very stressful</i>
--------------------	---	---	---	---	---	---	---	---	---	----	-----------------------

4.3. In a TYPICAL MONTH, how often do you experience the following:

	<i>Very often</i> 4	<i>Often</i> 3	<i>Little</i> 2	<i>Not at all</i> 1
A. Being nervous?	4	3	2	1
B. Being overloaded	4	3	2	1
C. Being exhausted	4	3	2	1

4.4. How many really good friends do you have?

0 None

4.5. If you were feeling so stressed that you wake up during the night and need someone to talk to would you have someone in your life to ring?

1 Yes

2 No

4.6. Do you have someone outside of your family who you are so close to that you could wake him/her up during the night in case of a serious problem?

1 Yes

2 No

4.7. In a TYPICAL MONTH, how often do you experience the followings:	<i>Often</i> 3	<i>Rarely</i> 2	<i>Never</i> 1
A. ... Being on top of the world.	3	2	1
B. ... Particularly excited or interested in something.	3	2	1
C. ... Pleased about accomplishing something	3	2	1
D. ... Proud because someone had complimented you on something you had done.	3	2	1
E. ... That things were going your way.	3	2	1
F. ... Very lonely or remote from other people.	3	2	1
G. ... Depressed or very unhappy.	3	2	1
H. ... Bored.	3	2	1
I. ... So restless you could not sit long in a chair	3	2	1

4.8. To what extent do you agree or disagree with the following statements?

	<i>Totally agree</i> 4	<i>Agree</i> 3	<i>Disagree</i> 2	<i>Totally disagree</i> 1
A. I feel alone when I face the difficulties of life.	4	3	2	1
B. I can do almost everything I decide to do.	4	3	2	1
C. There are a lot of things in my life where I can change only a little.	4	3	2	1
D. Sometimes I feel superfluous.	4	3	2	1
E. I wish I could be more self confident.	4	3	2	1
F. I feel that I have a lot of good characteristics.	4	3	2	1
G. It is better for me to try and be positive about the good things in my life.	4	3	2	1

4.9. Taking all things into account, HOW STRESSFUL do you consider your life to be now?

<i>Very stressful</i>	1	2	3	4	<i>Stress free</i>
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4.10. We are now more aware of the impact of (chronic) health problems, diseases. On individuals. Please indicate for each item if you have the health problem described or not. If you feel you have one of these problems, please indicate the name of it. (Please write in the IB. table!)

Do you have...

A. ... any kind of heart problem or hypertension? 0 No 1 Yes → IB. table
B. ... atherosclerosis, cerebrovascular disease, or arteriosclerosis? 0 No 1 Yes → IB. table
C. ... nodus haemorrhoidales or varix, recurrent phlebotrombosis? 0 No 1 Yes → IB. table
D. ... chronic bronchitis or asthma, emphysema? 0 No 1 Yes → IB. table
E. ... rhinitis or recurrent sinusitis? 0 No 1 Yes → IB. table
F. ... diabetes or thyroid gland problem (goitre)? 0 No 1 Yes → IB. table
G. ... anaemia or blood disease? 0 No 1 Yes → IB. table
H. ... neuralgia, neuritis? 0 No 1 Yes → IB. table
I. ... recurrent migraine or epilepsy or other disease in nervous system (brain, spinal cord)? 0 No 1 Yes → IB. table
J. ... kidney stone or other kidney disease, cystitis? 0 No 1 Yes → IB. table
K. ... other tumour? 0 No 1 Yes → IB. table
L. ... other chronic dermatological disorder (eczema, psoriasis, dermatitis)? 0 No 1 Yes → IB. table

M. ... chronic gall-bladder or liver disease (gallstone, hepatitis, cirrhosis hepatis)? 0 No 1 Yes → IB. table
N. ... stomach or duodenum ulcer, hernia, or bowel disease? 0 No 1 Yes → IB. table
O. ... any other chronic problem with your stomach or bowels? 0 No 1 Yes → IB. table
P. ... recurrent problem with the teeth or gums? 0 No 1 Yes → IB. table
Q. ... arthritis, rheumatism, gout, bursitis or arthrosis? 0 No 1 Yes → IB. table
R. ... any other musculoskeletal disorders (osteoporosis) or neck, back, spinal cord problems? 0 No 1 Yes → IB. table
S. ... chronic ear or eye problems (tinnitus, glaucoma, cataract) (exception blindness, deafness)? 0 No 1 Yes → IB. table
T. ... any other allergic reactions to (exception rhinitis allergica)? 0 No 1 Yes → IB. table
U. ... (If the respondent is male) any prostate problems? 0 No 1 Yes → IB. table
V. ... (If the respondent is female) any uterus, ovary or other gynaecological disease? 0 No 1 Yes → IB. table
W. ... mental health problems, psychological problems if you are treated? 0 No 1 Yes → IB. table

IB. Table for chronic diseases. Please indicate how long you have had this disease?

The letter of disease	a. The name of the disease(s)	b. For how long?
_____	_____ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	_____ Years
_____	_____ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	_____ Years
_____	_____ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	_____ Years
_____	_____ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	_____ Years
_____	_____ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	_____ Years
_____	_____ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	_____ Years

4.11. Taking all things into consideration how would you rate your general your health status?

very good good satisfactory bad
 1 2 3 4

4.12. Which medication (if any) do you take regularly for a chronic health problems?

..... sort 0 Does not take

4.13. How many type of preparations (vitamins, healing drops, teas, etc. excluding contraceptives) do you take regularly in order to prevent your health or avoid diseases?

..... sort 0 Does not take

4.14. Do you take any tranquillizers?

Regularly Rarely Never
 3 2 1

4.15. Do you take any sleeping-pills?

Regularly Rarely Never
 3 2 1

4.16. In the last 12 months, how many times and how many days have you spent in hospital? (If the respondent is young female (under 45 ys) exclude delivery of baby without complications.)

a. times 0 Never b. day(s) 0 Never

4.17. In the last 12 months how many times and how many days have you lain in bed at home because of health problems?

a. times 0 Never b. day(s) 0 Never

4.18. In the last 12 months how many days were you not able to do your daily activities because of health problems?

..... day(s) 0 Never

4.19. In the last 12 months how many days were you unable to work because of health problems?

..... day(s) 0 Never

4.20. During the past few weeks, how often have you worried about...	<i>Almost every day</i>	<i>Very often</i>	<i>Often</i>	<i>Rarely</i>	<i>Never</i>
	5	4	3	2	1
A. ... Not having enough money?	5	4	3	2	1
B. ... How about financial debts?	5	4	3	2	1
C. ... How things are going at work?	5	4	3	2	1
D. ... Getting along with your wife/husband/girl friend/boy friend?	5	4	3	2	1
E. ... Moving ahead in the world?	5	4	3	2	1
F. ... Your children?	5	4	3	2	1
G. ... Sexual problems?	5	4	3	2	1
H. ... People you have trouble with?	5	4	3	2	1
I. ... Your health?	5	4	3	2	1
J. ... Things that happen in your neighbourhood?	5	4	3	2	1
K. ... The world situation?	5	4	3	2	1
L. ... Growing old?	5	4	3	2	1

5.12. Since you have started work how many times have you changed your job because of moving home?

..... times

5.13. Since you have started to work have you had other jobs outside of nursing?

Other jobs you have had



a. If you had another job, how many?

Number of them:

Were they:

b. health care related: job

c. non health care related: job

Always worked as a nurse

2

Follow with question 5.14

5.14. After finishing the schools, since you have started work have you ever interrupted your employment of your own accord for two or more months and than you have started to work again? (excluding maternity leave and military service)

1 Yes

2 No

5.15. In the past ten years, have you ever been unemployed?

1 Yes

2 No

Follow with question 5.16

a. If yes, how many times? times

WARNING! Here comes some question upon your salary. These questions are important, because some people think the income plays an important role in changing job. Of course as other answers in the questionnaire, these will be handled confidentially.

5.16. What is your net monthly salary for your main job (hospital)? (inclusive extra hours) (Do not discount bank mortgage payments!)

..... HCl/month

5.17. In your home how many....

- a. active worker do you have? (Including yourself?) person
- b. pensioner do you have? person
- c. unemployed do you have? person
- d. maintained person do you have? person
- e. children do you have? person

5.18. What is you net family income monthly? (All active workers and pensioner should be included if they are living in the same home: yourself, working wife/spouse, working children, working parents, etc.!) Take into consideration the income from any second jobs, benefits, etc.! Do not discount any bank mortgage payments!

..... HUF/months

5.19. How many people are living on this income (including yourself)? person

5.20. How many people contribute to this family income? person

5.22. How do you feel you survive on this income?

Very well		Well		Fairly		Barely		Do not
5		4		3		2		1

If you would have any further idea, or comments to this survey please feel free to use the space here to give them.

PLEASE CHECK IF YOU HAVE NOT MISSED ANY OF THE QUESTIONS!

Thank you very much for taking time to complete the questionnaire!

.....

.....

.....

.....

.....

.....

.....

.....

Date of completing the questionnaire:day(s)..... month(s) 2003

How long did completing of questionnaire take? min. OR hour(s) and ... min.

Coded by: Recorded by:

Controlled by:

APPENDIX B

Consent Form for Interviews

CONSENT STATEMENT FOR INTERVIEW PARTICIPATION

The aim of the Project:

The present research project focuses on the nature and extent of paid and unpaid work on nurses' well-being who work in direct patient care in six Hungarian hospitals. The study will highlight the relationship between job and home dimensions (demand, control, support) contributing to the positive and negative aspect of nurses' experienced well-being. This study would help to better understanding of nurses' work-home life and could provide arguments for changing the work environment.

- I understand that the interview will be audio-tape recorded for the purpose of accurate transcription of the interview.
- I am aware that the participant's name is kept confidential and the audio tape is heard by the interviewer only for the purpose of the study. The material on the tape will be deleted on completion of the study.
- I understand that my participation is voluntary and I may withdraw from the study at any time.
- I understand that the material from this interview will be used for as part of the research dissertation of Jozsef Betlehem.
- I have been informed that the feedback from the study will be provided to me on its completion.
- It has been pointed out to me, that I contact the director of studies or chief investigator in Hungary (names & phone numbers provide on my copy of consent form) for any question, concerns, or complaints about the manner in which the project is conducted, then I may contact either:

Director of Studies:	Chief investigator in Hungary:
Dr. Tony WARNE PhD Principal Lecturer CPD and Postgraduate Studies CPD and Postgraduate Studies Division School of Health, Psychology and Social Care Faculty of Health, Social Care and Education Manchester Metropolitan University Hathersage Road Manchester M13 0JA Phone:+44 (0)161 247 2511	Dr. Tamas TAHIN MD, CSc Dean, Professor Institute of Applied Health Sciences Faculty of Health Sciences University of Pecs 4 Ret street H-7623 Pecs Phone/fax: +36-72-535980

Researcher:

Jozsef BETLEHEM
 Faculty of Health Sciences
 University of Pecs

4 Ret street
 H-7623 Pecs
 Phone/fax: +36-72-535980

CONSENT STATEMENT

I agree to participate in the research project on “The effect of paid and unpaid work on nurses’ well-being in different clinical settings” and give my consent freely. I understand that the study will be carried out as described in the information statement, a copy of which I have retained. I realize, that whether or not decide to participate is my decision and will not affect my work again in any way. I also realize that I can withdraw from the study at any time and that I do not have to give reasons for withdrawing. I have had all questions answered to my satisfaction.

PARTICIPANT	RESEARCHER
Name:	Name:
Signature:	Signature:
Date:	Date:

APPENDIX C

Cover letters

To the director of the hospital

Dear Sir or Madam,

I am writing to seek your cooperation in conducting a research programme in your institution about the effect of paid and unpaid work on nurses' well-being in different clinical settings.

The research is carried out by the Faculty of Health Sciences of University of Pécs and forms as a part of a doctoral research study for József Betlehem PhD student.

The data collection in your institution will be through a questionnaire administered by trained research assistants. The participation in the survey is voluntary and the collected data will be handled confidentially. After the survey 8 person of staff will be selected for an interview.

The commitment of the nurses to the survey will be asked out of working hours which will not affect the daily routine of the departments.

If you are accepting our query, for a detailed personal discussion I would make an appointment to you.

Looking forward to cooperate with you,

Sincerely yours,

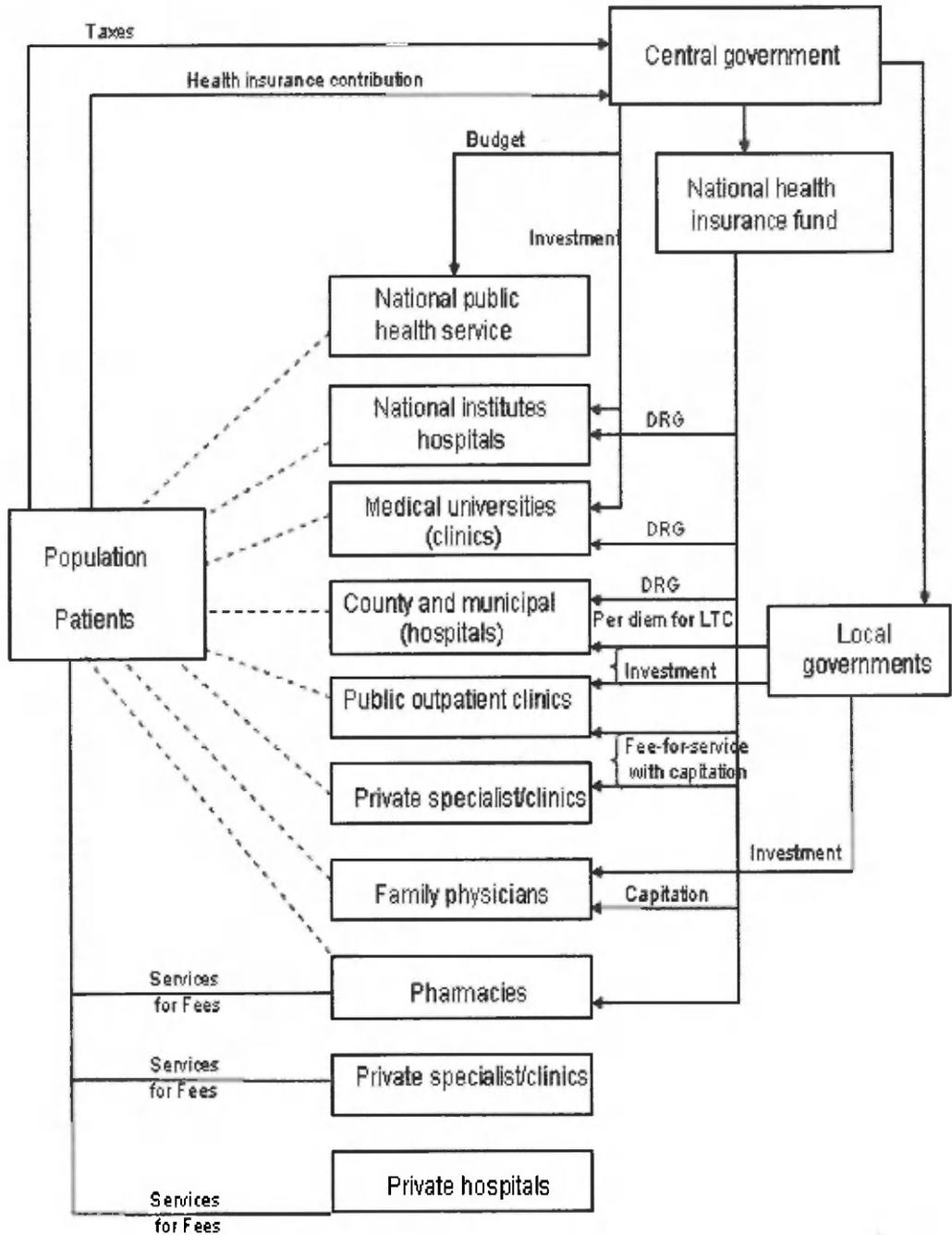
József BETLEHEM
Researcher
Faculty of Health Sciences
University of Pecs

4 Ret street
H-7623 Pecs
Phone/fax: +36-72-535980

APPENDIX D

Figure 1. Organizational Chart of the Health Care System in Hungary, 2003

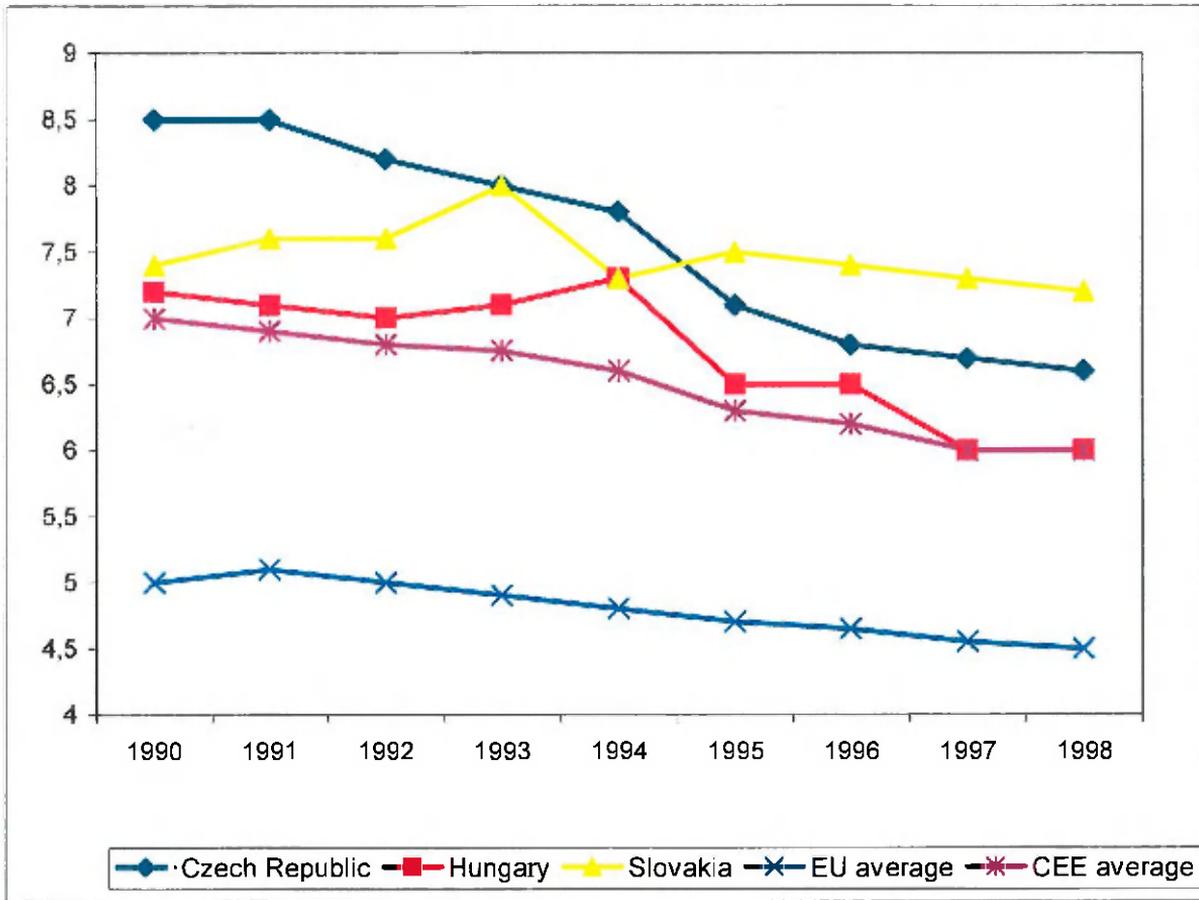
Hungary, 2003



----- Services: mainly free of charge (in certain cases with co-payments, e.g. dental care) but several cases with under-the-table payments

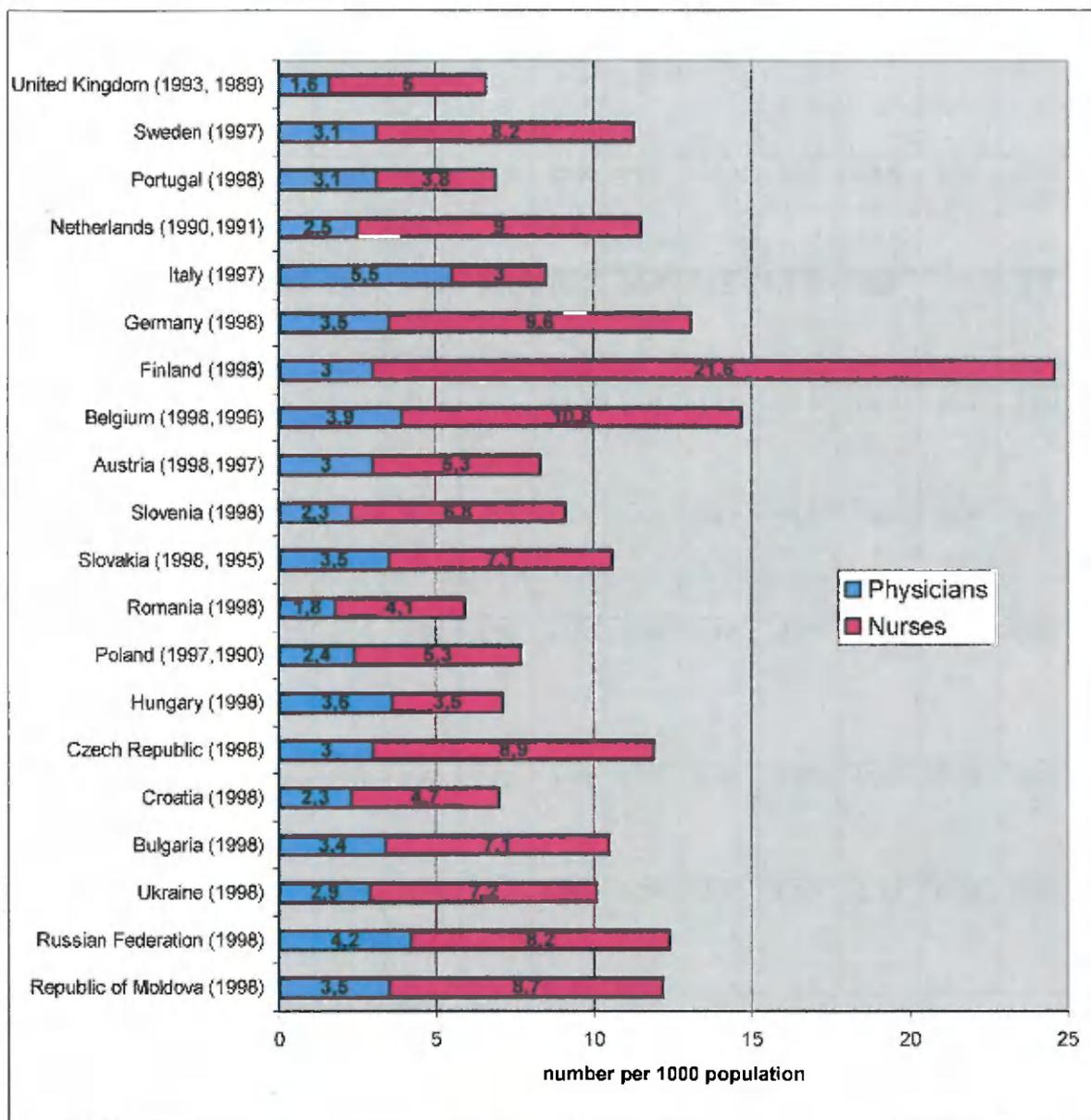
Source: OECD Secretariat, 2003.

Figure 2. Hospital beds in acute hospitals per 100 000 population in Hungary and selected European countries, 1990–1998



Source: WHO Regional Office for Europe health for all database.

Figure 3. Number of physicians and nurses per 1000 population in some countries of the WHO European Region, 1998 or (latest available year)



Source: WHO Regional Office for Europe health for all database.

Table 1. Health indicators in Hungary, 1949-2002

Indicators	1949	1970	1980	1990	1992	1994	1996	1998	1999	2000	2001	2002
Male life expectancy at birth (years)	59.3	66.3	65.5	65.1	64.6	64.8	66.1	66.1	66.3	67.1	68.2	68.3
Female life expectancy at birth (years)	63.4	72.1	72.7	73.7	73.7	74.2	74.7	75.2	75.1	75.6	76.5	76.6
Mortality 40–59 year-old males per 1000	10	8.4	12.5	14.3	15.6	15.9	14.2	15.1 2	15.1 1	13.6 9	13.2 4	13.1 2
Infant mortality (per 1000 live births)	91.0	35.9	23.2	14.8	14.1	11.5	10.9	4.5	4.3	4.6	3.9	3.7
Induced abortions per 100 live births	–	126. 7	54.4	71.9	71.5	64.4	72.8	70.6	69.3	60.7	58.1	57.9
Maternal mortality (per 100 000 live births)	156. 5	42.2	20.1	9.9	10.4	10.4	11.4	60.1	30.0	100. 1	40.0	70.1
Communicable diseases mortality (per 1000 population)	1.3	0.27	0.14	0.09	0.09	0.09	0.08	0.07	0.07	0.07	0.06	0.06
Mortality due to accidents (per 1000 population)	0.29	0.56	0.67	0.85	0.83	0.79	0.72	0.65	0.65	0.59	0.60	0.62
Suicide mortality (per 1000 population)	0.24	0.35	0.45	0.40	0.39	0.35	0.34	0.32	0.33	0.32	0.29	0.28

Source: Hungarian Central Statistical Office

HUNGARIAN CENTRAL STATISTICAL OFFICE. *Magyar statisztikai évkönyv, 1947-1955*. (Statistical Yearbook of Hungary 1947-1955). Budapest, 1956.

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HUNGARIAN CENTRAL STATISTICAL OFFICE. *Statistical Yearbook of Hungary, 1994*. Budapest, 1995a.

HUNGARIAN CENTRAL STATISTICAL OFFICE. *Statistical Yearbook of Hungary, 1996*. Budapest, 1997b.

HUNGARIAN CENTRAL STATISTICAL OFFICE. *Statistical Yearbook of Hungary, 1997*. Budapest, 1998a.

Table 2. Number of hospitals and hospital beds, 1990-2002

Beds	1990	1992	1994	1996	1998	2000	2002	% change 1990-2002
Hospitals	148	168	168	172	167	167	167	-11.3
Acute	72 551	70 639	73 456	58 733	58 104	57 632	61 342	-15.44
Long-term	29 403	27 893	28 346	25 104	25 666	25 798	18 998	-35.38
Total	101 954	98 532	101 802	83 837	83 770	83 430	80 340	-21.19

Source: Information Centre for Health Care (GYOGYINFOK) database.

Table 3. Inpatient utilization and performance in some country of the WHO European Region, 1998 or latest available year

Country	Hospital beds per 1000 population	Admission per 100 population	Average length of stay in days	Occupancy rate (%)
Austria^a	6.4	24.7	7.1	74.0
Belgium^b	5.2	18.0	7.5	80.6
Finland^c	2.4	20.5	4.7	74.0
Germany^a	7.1	19.6	11.0	76.6
Sweden^b	2.7	16.0	5.1	77.5
United Kingdom^b	2.0	21.4	4.8	-
Bulgaria^h	7.6	14.8	10.7	64.1
Croatia	4.0	13.4	9.6	88.2
Czech Republic	6.5	18.4	8.8	70.8
Hungary	5.8	21.7	8.5	75.8
Slovakia	7.1	19.3	10.3	77.9
Slovenia	4.6	15.9	7.9	75.4
Republic of Moldova	9.1	16.9	15.4	77.6
Russian Federation	9.0	19.9	14.0	82.5
Ukraine	7.4	17.9	13.4	88.1

Source: WHO Regional Office for Europe health for all database. Note: a)1997, b)1996, c)1995

Table 4. Health Care Personnel in Hungary, 1985-2002

Number per 1000 population	1985	1990	1995	2000	2001	2002
Physicians	3.15	3.59	4.16	3.83	3.9	4.03
Dentists	0.38	0.41	0.49	0.56	0.58	0.59
Registered nurses	4.0	4.5	4.9	5.0	5.1	4.9
Nurses graduating	0.39	0.04	0.07	0.06	0.07	0.05

Source: GYOGYINFOK and Hungarian Statistical Yearbook, 1986, 1991, 1996, 2001, 2002, 2003

Table 5. The age distribution of Hungarian registered nurses, 2004 (source: ETI, 2004)

Age groups	Number of nurses	Percent
21-25	4506	6,49
26-30	15543	22,39
31-35	12600	18,15
36-40	10633	15,31
41-45	8379	12,07
46-50	7301	10,52
51-55	5595	8,06
56-60	3534	5,09
61-65	1183	1,70
66-	159	0,23
Total	69433	100,00

Table 6. The age distribution of participants in the sample of nurses at inpatient setting in 2003

Age groups	Number of nurses	Percent
20-24	72	9,0
25-29	193	24,2
30-34	156	19,6
35-39	132	16,6
40-44	104	13,1
45-49	56	7,0
50-54	65	8,2
55-59	18	2,3
Total	796	100,0

Table 7. Logistic regression on paid and unpaid aspects of nurses' work

Logistic regression model	Positive well-being				Negative well-being			
	Exp(B)	Sig	CI 95%		Exp(B)	Sig	CI 95%	
Paid			Lower	Upper			Lower	Upper
Passive/low support	0.771	0.480	0.374	1.587	0.701	0.355	0,331	1,487
Passive/high support	0.589	0.079	0.326	1.064	0.564	0.070	0,304	1,047
High strain/high support	0.799	0.391	0.478	1.335	0.958	0.870	0,574	1,599
Low strain/low support	0.539	0.104	0.255	1.136	0.702	0.349	0,335	1,471
Low strain/high support	0.347	0.000	0.206	0.585	0.413	0.001	0,243	0,701
Active/low support	0.922	0.783	0.518	1.641	0.762	0.364	0,423	1,371
Active/high support	0.528	0.020	0.308	0.906	0.922	0.763	0,542	1,566
Unpaid								
Passive/low support	0.976	0.935	0.540	1.762	0.658	0.169	0,363	1,195
Passive/high support	1.195	0.589	0.625	2.285	0.270	0.001	0,126	0,582
High strain/high support	0.821	0.475	0.479	1.410	0.627	0.091	0,365	1,077
Low strain/low support	0.401	0.002	0.223	0.718	0.485	0.014	0,272	0,864
Low strain/high support	0.334	0.000	0.185	0.602	0.311	0.000	0,173	0,560
Active/low support	0.415	0.009	0.215	0.802	0.838	0.578	0,450	1,563
Active/high support	0.433	0.011	0.226	0.828	0.458	0.016	0,242	0,867

LIST OF PUBLICATIONS - PUBLIKÁCIÓS JEGYZÉK

1996. január 1-2006. július 31.

Folyóirat közlemények (original articles):

1. Betlehem, J. Koppán, M., Bódis, J. (2006) Optimal range of hemoglobin concentration in pregnancy. American Journal of Obstetrics and Gynecology, In Press: 2006 Apr 18. IF2003:2,518
2. Betlehem, J., Puskás, T., Nagy, G., Marton, J., Galbavi, M. (2006) Amit minden egészségügyi dolgozónak ismerni illik a felnőtt újraélesztés legújabb Európai irányelveiről. *Nővér*, 19;2:13-18.
3. Boncz, I., Dózsa, Cs., Kaló, Z., Nagy, L., Borcsek, B., Brandtmüller, Á., Betlehem, J., Sebestyén, A., Gulácsi, L. (2006) Development of health economics in Hungary between 1999-2006. *The European Journal of Health Economics*, Vol. 7. Supplement 1. S4-S6.
4. Betlehem, J. (2005) Átalakuló egészségtudományi felsőoktatás. *Nővér*, 18;4:27-31.
5. Járomi, M., Betlehem, J. (2005), Az egészségügyi dolgozók fizikai egészségéért. *Nővér*, 18;2:21-24.
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