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

DOCTORAL (PhD) THESIS

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INTRODUCTION

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, especially at bed-side 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. 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.

The subjective well-being of the society or an individual is not only important because happiness or satisfaction should feature the welfare societies but also because the surveyed people in the western societies find the above mentioned values important. Meanwhile, research results prove the positive consequences of high subjective well-being not only in health status (e.g. satisfied and happy people live longer) but also in work (such people earn more money and are motivated workforce) and in personal relationships (such people are more creative and sociable) as well (Diener et al. 1997; Diener & Biswas-Diener, 2000). The well-being of individuals, like as nurses, and the well-being of the society are not independent concepts: the high well-being of nurses can improve the well-being of the patients and the whole societies. Meanwhile, it has a good feed-back on nurses, which may increase the happiness and satisfaction of patients and each member of the societies.

The well-being related research is mainly captured to the surveys on physical health. In the modern approach of the medicine the physical health and well-being are similar concepts which are underpinned by that researches which investigate the correlation between physical health and well-being. Against the public belief, physical health may have only modest

positive effect on subjective well-being, namely, how people evaluate their health status (Diener, 1984, cited in Rod O'Connor, 1993; Veenhoven, 1996, 1997).

After the societal and political change, certain layers of the Hungarian society not only became poorer but also unsatisfied; they suffer from mental problems and more often mirror the symptoms of anomy and alienation, like as the other part of the society who are in better condition (Andorka, 1996). Thus, not only the level of income but also the well-being on the Hungarian society shows inequalities, which might be true among nurses as well.

OBJECTIVES

The effect of work on nurses' physical health is relatively underrepresented in Hungary, although the correlation between work and physical health is discussed in occupational health literature. The work of nurses in direct patient care, especially in shift work at the bed side based on our opinion in many terms stressful and the psychological aspects of dealing with people in experiencing the everyday life is not negligible. It would be practical to find such a theory which would enable how work impact on nurses' everyday life, on being a nurse in weekdays and on their well-being.

Thus, one of the aims 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 (later DCS model). Using this model it is possible to separate such groups who are in different life situation at experiencing the effects of work on well-being. Based on the three dimensions, those workers are in the worst situation who work under a highly demanding work pressure with low control over the activities and with low support.

First the DCS model was used among employer working in paid industrial and service sector, although this study first expanded these dimensions on nurses's unpaid work which may have a significant meaning among female workers.

Beyond testing the use of DCS model in Hungary, among the aims were to explore the experienced well-being in the developed groups of nurses both under paid in unpaid circumstances and finally combine them.

METHODS

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.

The basis of the conceptual framework used in the first phase of the study was the DC (demand-control) model by Karasek (1979) and DCS (demand-control-support) interactional model by Johnson et al. (1991) developed in paid work organizations. In comparison to all other models, empirical testing of the DCS 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), although the applicability of the model was not yet refute.

During the literature review it turned out that 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). Figure 1 shows the essential meaning of the DCS model, i.e. the nurses' groups in different work situations.

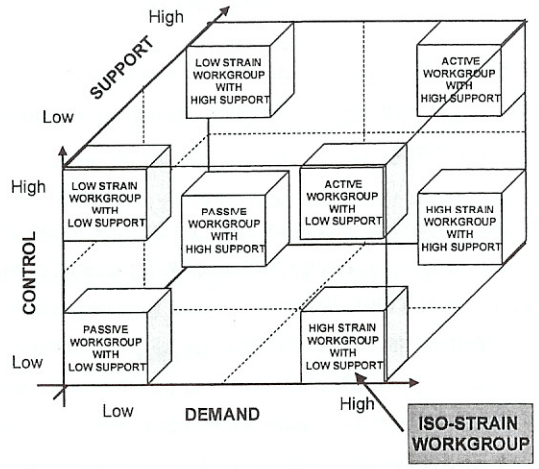

Figure 1. Iso-strain model adopted from Johnson et al (1991)

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.

In the first phase of the research a quantitative cross-sectional survey was developed to test the DCS model and in the second phase we collected nurses' working experiences with using interviews.

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 2003. The measure scales were selected from the items of the questionnaire with the help of factor analysis. 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. Regarding the reliability of scales Cronbach's alpha coefficient was used. The accepted coefficient for all scales in the present study was ≥ 0.6. For measuring the well-being, the items of Bradbrun's Affect Balance Scale was introduced (Bradburn, 1969) adopted for the Hungarian environment, always paying attention to reliability of the statistics. 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 the second part of the study 30 female nurses were selected from the participating hospitals and interviewed. The interview transcripts were carefully read and analysed for the purpose of recognising meaningful themes (categories) that communicated the key issues.

The most frequently appearing themes were than categorized. For the most frequent occurring themes and sub-themes, internal homogeneity and external heterogeneity were checked. In each step of processing data, the reliability, validity and credibility was taken into consideration.

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.

RESULTS

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 approach used in this study went further in expanding the DCS model of Johnson et al. (1991) 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 liner 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).
The effect of the iso-strain situation may affect the nurses' well-being and physical health seriously which 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 tuned 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-stain).

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 format 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

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. Apllebaum (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.

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 strengthen the findings with longitudinal research, 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.

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.

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 allowed number of working hours. With the same human resource in the health care the problem was difficult to solve. Therefore, the Ministry of Health should force to introduce healthier workplaces in the health care sector, and other forms of maintaining health care staff in the field. These kinds of efforts can be very important for nurses although the implementation of the proposed steps a not yet done.

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