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# Hospital culture, work satisfaction and psychological well-being among nurses in Turkish hospitals[1]

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Abstract
This study examined the relationship between self-reports of hospital culture and indicators of work satisfaction and engagement, perceptions of hospital functioning and quality of nursing care, and psychological well-being of nursing staff in Turkish hospitals. It represents the first study of its kind. Data were collected from 224 staff nurses using anonymously completed questionnaires, a 37% response rate. Two aspects of hospital culture were included: hospital support and hospital health and safety climate. Hierarchical regression analyses, controlling for both personal demographic and work situation characteristics, indicated that hospital culture accounted for significant increments in explained variance on most outcome measures, particularly work outcomes. Interestingly, hospital support and hospital health and safety climate were associated with different outcomes in several cases. Explanations for the association of hospital culture with various outcomes are offered along with potentially practical implications.

Keywords: hospital culture, work satisfaction, well-being, Turkish hospitals.

People in most countries see health care as an important priority and it is likely to become even more important as populations age. In response to this need, national and local governments devote significant amounts of their budgets to funding their

health care systems. Nurses occupy a key role in the delivery of health care, though countries may have different health care systems and methods of payment options. Research on the experiences of nurses in various countries however has indicated that nurse report relatively high levels of job dissatisfaction, burnout, and intention of leaving the profession (Aiken, Clarke, Sloane & Sochalski, 2001).It has even been suggested that he quality of nursing care has deteriorated (Commonwealth Fund, 2000). In addition nursing is less likely to be seen as a desirable occupation by younger women and men. Some countries are now reporting a shortage of nurses, often compounded by the fact that richer nations are luring nurses away from poorer ones. The health care system has also undergone significant change over the past decade. These stem from the greater use of new technologies, off-shoring some services to developing countries, advances in medical knowledge, an aging population, more informed and critical users of the health care system, and efforts by governments to further control health care expenditures.

It is not surprising then that considerable research has been undertaken to understand the work experiences of nurses, particularly as these relate to nurse satisfaction and well-being and patient care. It has concentrated on issues of hospital workplace culture, workload, lack of resources, overtime work, and increases in abuse experienced in the work place by nursing staff as these affect burnout, depression, psychosomatic symptoms, absenteeism and intent to leave the profession (Aiken, Clarke, Sloane, Sochalski & Silber, 2002). The bulk of nursing research has used a stressor-strain framework and has contributed a great deal to our understanding of the experiences of nurses in their workplaces.

## Magnet hospitals

Research initially conducted in the US (Aiken, Smith & Lake, 1994; Aiken, Sloane & Clarke, 2002), but now replicated in several other countries, has identified characteristics of hospital environments associated with high levels of nurse satisfaction, low nurse turnover and high levels of patient care quality. These hospitals were termed "magnet hospitals" for their ability to both attract and retain nursing staff (Aiken, 2002). Magnet hospitals are distinguished by their workplace cultures (Havens & Aiken, 1999; Kramer, 1999; Kramer & Schmalenberg, 1988a, 1988b). Magnet hospitals are characterized by the following: a philosophy of caring from top management that permeates the patient care environment, leaders that are visible and approachable, participatory management, facilities that support high quality care for patients, high levels of involvement of nurses in planning for hospital programs, equipment and technology, nurses given high levels of professional autonomy, leaders that encourage and support continuous staff

development, fair and competitive wages, and an emphasis on quality and learning from efforts to understand both successes and failures in achieving quality standards. Interestingly, the concept of Magnet hospitals is consistent with research and writing on High Performance Work Systems (HPWS) found in the human resource management literature (e.g., Becker & Huselid, 1998; Huselid, 1995; Pfeffer, 1998, 1994).

## Nursing research in Turkey

Nursing research in Turkey is still relatively new, Ozsoy (2007) describing the struggle to undertake and report such work, but increasing. Ergul, Ardahan, Temel and Yildirim (2010) undertook a bibliographic review of references of nursing research papers in Turkey over a ten year period (1994-2003) documenting this increase. Most Turkish nursing research has been carried out by academics with university affiliations. Recent research has examined developing approaches to increase patient safety (Badir, 2009), ethical issues in health care (Ulusoy & Ugar, 2000; Ersoy & Gaz, 2001), sexual harassment of female nurses in hospitals (Kisa & Dziegielsewski, 1996), and leadership development among nursing students (Duggulu, Hicdurmaz & Akyar2008). There are a few journals in Turkey that have published nursing research (see Egul and his colleagues, 2010). Turkey is similar to other countries in facing a nursing shortage. Turkey also spends a lower percentage of its GDP on health care, however, than do most other OECD countries.

The present study considers the relationships of measures of nurses' perceptions of hospital culture and a variety of work satisfactions, indicators of psychological well-being. and perceptions of quality of nursing care among nurses working in Turkish hospitals. No other research on hospital culture and work experiences of nurses in Turkey, to our knowledge, has considered these issues. Nine work and well-be4ing outcomes were included in the study, consistent with both earlier North American hospital research and reviews of important indicators of individual satisfaction and health (Barling, Kelloway & Frone, 2005; Cooper, Quick & Schabracq, 2009)

The general hypothesis underlying this research would be that nurses describing their hospital cultures more favorably would be more work satisfied, report higher levels of psychological and physical well-being, and describe their hospital as functioning at a higher level. This hypothesis builds on and is consistent with earlier work undertaken in North America.

## Method

### Procedure

This study was carried out in hospitals in Ankara Turkey, research sites being randomly selected from the various hospitals in that city. The Health Ministry sent a cover letter to the Chief Physicians of these hospitals requesting their cooperation. The research however was not undertaken for the Ministry of Health. Six hundred questionnaires were administered to staff nurses in the hospitals. Measures originally in English were translated into Turkish using the back translation method. Data were collected in March 2009. Two hundred and twenty four nurses anonymously completed the surveys, a 36% response rate.

### Respondents

Table 1 presents the personal demographic and work situation characteristics of the sample (n=224). There was considerable diversity on each item. The sample ages ranged from under 25 to over 46, with 128 (59%) being between 26 and 35.. Most were married (77%), had children (70%), worked full-time (79%), wanted to work full-time (99%), were female (84%), worked between 41-45 hours per week (69%), had a high school or vocational school education (35%), did not have supervisory responsibilities (56%), had not changed units in the past year (74%), had five years or less of nursing tenure (59%), five years or less of hospital tenure (58%), and worked in a variety of nursing units.

Table 1: Demographic Characteristics of Sample

| Age | N | % | Sex | N | % |
|---|---|---|---|---|---|
| 25 or less | 18 | 8.4 | Female | 180 | 87.8 |
| 26 – 30 | 76 | 35.3 | Male | 25 | 12.2 |
| 31 – 35 | 52 | 24.4 | | | |
| 36 – 45 | 44 | 21.5 | | | |
| 41 – 45 | 17 | 8.3 | | | |
| 46 or older | 8 | 3.9 | | | |
| Parental Status | | | Marital Status | | |
| Children | 151 | 70.3 | Married | 168 | 77.4 |
| Childless | 64 | 29.7 | Single | 49 | 22.6 |
| Education | | | Number of Children | | |
| High School | 75 | 34.6 | 1 | 70 | 46.4 |
| Vocational School | 50 | 23.0 | 2 | 76 | 50.3 |
| Bachelor's degree | 70 | 32.2 | 3 or more | 5 | 3.3 |
| Master's degree | 2 | .9 | | | |
| Faculty | 20 | 9.2 | | | |
| Hours worked | | | Work status | | |
| 40 or less | 39 | 19.8 | Full-time | 160 | 79.4 |
| 41 – 45 | 84 | 42.6 | Part-time | 54 | 20.6 |
| 46 – 50 | 38 | 18.3 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 51 – 55 | 9 | 4.6 | | | |
| 56 or more | 27 | 13.7 | | | |
| Changed Units Past Year | | | Supervisory Duties | | |
| | | | Yes | 69 | 31.8 |
| Yes | 53 | 26.0 | No | 148 | 68.2 |
| No | 151 | 74.0 | | | |
| Nursing Tenure | | | Preferred Work status | | |
| 5 years or less | 119 | 59.1 | Full-time | 197 | 99.5 |
| 6 – 10 years | 41 | 20.4 | Part-time | 1 | 0.5 |
| 11 – 15 years | 14 | 7.0 | | | |
| 16 – 20 years | 18 | 9.0 | | | |
| 21 years or more | 9 | 4.5 | | | |
| Hospital Tenure | | | | | |
| 5 years or less | 118 | 57.6 | | | |
| 6 – 10 years | 49 | 23.9 | | | |
| 11 – 15 years | 14 | 6.8 | | | |
| 16 – 20 years | 15 | 7.3 | | | |
| 21 years or more | 9 | 4.4 | | | |

Measures

Personal and work situation characteristics

These were measured by single items (e.g., age, sex, level of education, unit tenure, hospital tenure).

Hospital Culture

Two aspects of hospital culture were included: perceptions of hospital support and perceptions of the hospital occupational and safety climate.

Health and Safety Climate

Nurses indicated their agreement with eight items ($\alpha$=.74) developed by the authors based on Zohar and Luria (2005) and an extensive review of the accident and safety climate literature. An item was, "I feel free to report safety problems where I work". Again a five point Likert scale anchored by Strongly agree (5) and Strongly disagree (1) was used.

Hospital Support

Hospital support was assessed by eight items ($\alpha$=.95) developed by Eisenberger, Huntington, Hutchison and Sowa (1986). An item was, "This hospital is willing to help me when I need a special favor". Respondents indicated their agreement with each item on a seven-point Likert scale (1= Strongly agree, 4= Neither agree nor disagree, 7= Strongly disagree).

Work Outcomes

Nine work outcomes were included.

Job satisfaction was measured by a five-item scale ($\alpha$=.79) developed by Quinn and Shepard (1974). One item was, "All in all, how satisfied would you say you are with your job?" Respondents indicated their responses on a four-point Likert scale (1-Very satisfied, 4=Not at all satisfied).

Absenteeism

Nurses indicated first how many days they had been absent from work during the past month, and then how many of these days of absenteeism were due to sickness. Intent to quit ($\alpha$=.76) was measured by two items used previously by Burke (1991). An item was, "Are you currently looking for a different job in a different organization?"

Work Engagement

Three dimensions of work engagement were assessed using scales developed by Schaufeli et al. (2002) and Schaufeli and Bakker (2004). Respondents indicated their agreement with each item on a five-point Likert scale (1= Strongly disagree, 3=Neither agree nor disagree, 5=Strongly agree). Vigor was measured by six items ($\alpha$=.82). One item was "At my work, I feel bursting with energy". Dedication was measured by five items ($\alpha$=.79). An item was "I am proud of the work that I do." Absorption was assessed by six items ($\alpha$=.85). One item was " I am immersed in my work".

Burnout

Three dimensions of burnout were measured by the Maslach Burnout Inventory (Maslach, Jackson & Leiter, 1996). Respondents indicated how often they experienced each item on a seven-point scale (0=never, 3=a few times a month, 6=every day). Exhaustion was measured by a five-item scale ($\alpha$=.86). an item was "I feel burned out from my work". Cynicism was assessed by a five-item scale ($\alpha$=.58). One item was "I have become more cynical about whether my work contributes anything". Efficacy was measured by six items ($\alpha$=.77). An item was "I have accomplished many worthwhile things in this job".

Psychological Well-being

Five aspects of psychological well-being were included.

Positive Affect was measured by a ten-item scale ($\alpha$=.91) developed by Watson, Clark and Tellegen (1988). Respondents indicated how often they experienced

these items during the past week (e.g., excited, proud, excited) on a five-point Likert scale (1=not at all, 5=extreme).

Negative affect was also measured by a ten-item scale ($\alpha$=.86) developed by Watson, Clark and Tellegen (1988). Respondents indicated how often they experienced these (e.g., irritable, nervous, distressed) on the same frequency scale.

Psychosomatic symptoms was measured by nineteen items ($\alpha$=.91) developed by Quinn and Shepard (1974). Respondents indicated how often they had experienced each physical condition (e.g., headaches, having trouble getting to sleep) during the past year. Responses were made on a seven-point Likert scale (1=never, 4=often).

Medication use was measured by a five-item scale ($\alpha$=.75) developed by Quinn and Shepard (1974). Respondents indicated how often they took listed medications (e.g., pain medication, sleeping pills) on a five point scale (1=never, 5=a lot). The nature of this scale makes it difficult to achieve a higher level of reliability however; it is unlikely that respondents would be taking all medications listed.

Life satisfaction was assessed by a five-point scale ($\alpha$=.90) developed by Quinn and Shepard (1974). Respondents indicated their agreement with each item (e.g., In most ways my life is close to ideal) on a seven-point Likert agreement scale ( 1=Strongly agree, 4=neither agree not disagree, 7=Strongly disagree).

Perceptions of Hospital Functioning and Health Care

Two measures were included here, one assessing perceptions of hospital incidents such as errors and accidents, and one assessing perceptions of patient care quality.

Workplace Errors and Accidents

Nurses indicated how frequently they observed six hospital incidents ($\alpha$=.64) on a four-point scale (1=never, 4=frequently). Incidents included, "Patient received wrong medication or dose", "patient falls with injuries"). This scale was created by the researchers.

Patient care

Nurses indicated on a single item their views on the quality of patient care provided ("In general, how would you describe the quality of nursing care delivered to patients on your unit?" where 1=excellent, 4=poor). This item was created by the researchers. Single items have been found to be highly reliable (Wanous & Hudy, 2001).

## Results

### Correlation of culture measures

The two hospital culture measures, hospital support and health and safety climate, were positively and significantly correlated (r=.21, p<.001, n=200). This low correlation suggested that these two measures were relatively independent.

### Hierarchical Regression analysis

Hierarchical or stepwise regression analyses were undertaken in which various work outcomes, indicators of psychological well-being and perceptions of hospital functioning were regressed on three blocks of predictors entered in a specified order. The first block of predictors (n=4) consisted of personal demographics (e.g., age, marital status, level of education); the second block (n=4) consisted of work situation characteristics (e.g., job has supervisory duties, hospital tenure, work status, full-time versus part-time); the third block of predictors (n=2) consisted of the measures of hospital culture (e.g., hospital support, health and safety culture). When a block of predictors accounted for a significant amount or increment in explained variance ($p<.05$), individual variables within these blocks having significant and independent relationships with the criterion variable ($p<.05$) were identified. These variables are indicated in the tables that follow along with their respective $\beta$s.

### Hospital culture and Work Outcomes

Table 2 presents the results of hierarchical regression analyses in which nine work outcomes were regressed separately on the three blocks of predictors: personal demographics, work situation characteristics, and hospital culture. The following comments are offered in summary. Hospital culture accounted for a significant increment in explained variance on eight of the nine work outcomes. Nurses reporting higher levels of hospital support also indicated more job satisfaction, les intent to quit, fewer days of absenteeism, less exhaustion and less cynicism (Bs=.28, -.24, -.17, -.34 and -.25, respectively). Nurses perceiving a more favorable health and safety climate also indicated higher levels of vigor, dedication and absorption, and less cynicism (Bs=.18, .21, .16 and -.18, respectively).

Table 2: Hospital Culture and Work Outcomes

| Work Outcomes | | | | |
|---|---|---|---|---|
| Job Satisfaction(N=163) | R | $R^2$ | $\Delta R^2$ | P |
| Personal demographics | .22 | .05 | .05 | NS |
| Work situation | .32 | .11 | .06 | .01 |
| Supervisory duties (.16) | | | | |
| Hospital Culture | .45 | .20 | .09 | .001 |
| Hospital support (.28) | | | | |
| | | | | |
| Intent to Quit (N=163) | | | | |
| Personal demographics | .37 | .14 | .14 | .001 |
| Work situation | .42 | .18 | .04 | .001 |
| Work status (.24) | | | | |
| Hospital culture | .49 | .24 | .06 | .001 |
| Hospital support (-.24) | | | | |
| | | | | |
| Days Absent (N=163) | | | | |
| Personal demographics | .09 | .01 | .01 | NS |
| Work situation | .12 | .02 | .01 | NS |
| Hospital culture | .23 | .05 | .03 | .05 |
| Hospital support (-.17) | | | | |
| | | | | |
| Engagement | | | | |
| Vigor (N=165) | | | | |
| Personal demographics | .25 | .06 | .06 | .05 |
| Work situation | .40 | .16 | .10 | .001 |
| Changed units (-.20) | | | | |
| Supervisory units (.16) | | | | |
| Hospital culture | .46 | .21 | .05 | .05 |
| Health and safety climate (.18) | | | | |
| | | | | |
| Dedication (N=164) | | | | |
| Personal demographics | .13 | .02 | .02 | NS |
| Work situation | .35 | .12 | .10 | .001 |
| Work status (.28) | | | | |
| Changed units (-.17) | | | | |
| Hospital culture | .43 | .18 | .06 | .05 |
| Health and safety climate (.21) | | | | |
| | | | | |
| Absorption (N=164) | | | | |
| Personal demographics | .15 | .02 | .02 | NS |
| Work situation | .35 | .12 | .10 | .001 |
| Unit tenure (.16) | | | | |
| Hospital culture | .29 | .16 | .04 | .05 |
| Health and safety climate (.16) | | | | |

| | | | | |
|---|---|---|---|---|
| Burnout | | | | |
| Exhaustion (N=163) | | | | |
| Personal demographics | .24 | .06 | .06 | NS |
| Work situation | .32 | .10 | .04 | NS |
| Hospital culture | .48 | .23 | .13 | .001 |
| Hospital support (-.34) | | | | |
| Cynicism (N=164) | | | | |
| Personal demographics | .14 | .02 | .02 | NS |
| Work situation | .28 | .08 | .06 | .05 |
| Hospital culture | .43 | .18 | .10 | .001 |
| Hospital support (-.25) | | | | |
| Health and safety climate (-.18) | | | | |
| Efficacy (N=164) | | | | |
| Personal demographics | .11 | .01 | .01 | NS |
| Work situation | .25 | .06 | .05 | NS |
| Hospital culture | .27 | .07 | .01 | NS |

## Hospital Culture and Psychological Well-Being

Table 3 shows the results of hierarchical regression analyses involving five indicators of psychological well-being: positive and negative affect, psychosomatic symptoms, medication use and life satisfaction. The following comments are offered in summary. Hospital culture accounted for a significant increment in explained variance on two of the five indicators of psychological health: psychosomatic symptoms and life satisfaction. Nurses indicating higher levels of hospital support reported few psychosomatic symptoms and greater life satisfaction (Bs=-.32 and .36, respectively). Nurses indicating a more positive health and safety climate also reported fewer psychosomatic symptoms (B=-.17).

Table 3: Hospital Culture and Psychological Well-Being

| Psychological Well-Being | | | | |
|---|---|---|---|---|
| Negative Affect (N=160) | R | $R^2$ | $\Delta R^2$ | P |
| Personal demographics | .15 | .02 | .02 | NS |
| Work situation | .27 | .07 | .05 | .05 |
| Unit tenure (-.39) | | | | |
| Hospital Culture | .30 | .09 | .02 | NS |
| Positive Affect (N=162) | | | | |
| Personal demographics | .14 | .02 | .02 | NS |
| Work situation | .26 | .06 | .04 | .05 |

| | | | | |
|---|---|---|---|---|
| Supervisory duties (.16) | | | | |
| Hospital Culture | .26 | .07 | .01 | NS |
| | | | | |
| Psychosomatic Symptoms (N=165) | | | | |
| Personal demographics | .23 | .05 | .05 | NS |
| Work situation | .30 | .09 | .04 | NS |
| Hospital Culture | .48 | .23 | .14 | .001 |
| Hospital support (-.32) | | | | |
| Health and safety climate (-.17) | | | | |
| | | | | |
| Medication Use (N=161) | | | | |
| Personal demographics | .06 | .00 | .00 | NS |
| Work situation | .20 | .04 | .04 | NS |
| Hospital Culture | .21 | .04 | .00 | NS |
| | | | | |
| Life satisfaction (N=164) | | | | |
| Personal demographics | .14 | .02 | .02 | NS |
| Work situation | .21 | .04 | .02 | NS |
| Hospital Culture | .40 | .16 | .12 | .001 |
| Hospital support (.36) | | | | |

Hospital Culture, Hospital Incidents and Quality of Patient Care

Table 4 presents the results of hierarchical regression analyses in which two indicators of perceived hospital functioning (errors and accidents, quality of patient care) were regressed on the three blocks of predictors. Hospital culture accounted for a significant increment in explained variance on quality of patient care; nurses reporting higher levels of hospital support also reported higher quality of patient care (B=.16).

Table 4: Hospital Culture and Hospital Functioning

| Hospital Functioning | | | | |
|---|---|---|---|---|
| Hospital Errors and Accidents (N=160) | R | $R^2$ | $\Delta R^2$ | P |
| Personal demographics | .18 | .03 | .03 | NS |
| Work situation | .19 | .04 | .01 | NS |
| Hospital culture | .27 | .07 | .03 | NS |
| | | | | |
| Quality of Patient Care (N=163) | | | | |
| Personal demographics | .24 | .06 | .06 | NS |
| Work situation | .25 | .06 | .00 | NS |
| Hospital culture | .34 | .11 | .05 | .01 |
| Hospital support (.16) | | | | |

## Discussion

This study provided preliminary support for the general hypothesis underlying the research. That is, nurses having more favorable perceptions of levels of hospital support, and support for a healthy and safe hospital environment, also indicated more positive work outcomes, higher levels of psychological well-being and more positive views of hospital functioning. Although our measures of hospital culture were more focused and narrower than those included in the magnet hospital literature, our findings were consistent with their earlier results. In addition, our findings were supportive of writing on the correlates of organizational culture in organizations more generally (see Ashkanasy, Wilderon & Peterson, 2004; Erhart, Schnei9der & Macey, 2011).

### Practical Implications

Procedures have been developed, first in the US and later in other countries, that allow hospitals to apply for designation as magnet hospitals. This involves a rigorous evaluation of hospital policies and practices. This set of procedures supports hospitals in their quests to develop cultures that not only support the attraction and retention of scarce nursing staff, but also examines staffing issues, continuing education, improving nurse-doctor relationships, nurse empowerment, and improved problem-solving and decision-making processes.

### Limitations of the research

Some limitations of the research should be noted to put the findings into a broader context. The sample of nurses in this study was small (n=224). The sample was young, had little nursing experience, and was not highly educated. It was not possible to determine the representativeness of those nurses that participated. All data were collected using self-report questionnaires raising the possibility of response set tendencies. The data were collected at one point in time making it difficult to determine causality. Finally, some of the outcome measures themselves were significantly correlated likely increasing the number of significant findings.

### Future research directions

Future research needs to involve a larger and representative sample of nurses drawn from several different hospitals. In addition, other measures of hospital culture would enrich our understanding of the effects of hospital culture (e.g. nurse empowerment, staffing levels, quality of nurse-doctor relationships) on nurse satisfaction and well-

being and ultimately on the quality of patient care. As more research data accumulates, the stage for the evaluation hospital efforts to change their cultures will be set.

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