**The association between nationality and nurse job satisfaction in Saudi Arabian hospitals**

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**Abstract**

**Background**: Job satisfaction is important to increasing nurse retention rates. However, there is little research examining whether there is an association between nationality and job satisfaction among nurses.

**Aim:** To examine whether there is an association between nationality and nurse job satisfaction.

**Methods/design**: A cross-sectional survey design was utilised, and 743 nurses from three major government hospitals in Saudi Arabia participated in the survey. Job satisfaction was measured using McCloskey/Mueller Satisfaction Scale. Data were collected between May 2014 and February 2015.

**Results**: Compared to Saudi nurses, expatriate nurses had overall lower job satisfaction after controlling for other predictors. While expatriates were less satisfied than Saudi nurses about extrinsic rewards and family-work balance, however, Saudi nurses were less satisfied than expatriate nurses about their professional opportunities, praise and recognition, and co-worker relationships.

**Conclusion**: For some subscales, Saudi nurses were more satisfied than expatriate nurses, while for other subscales, the opposite was true. Nationality should be included in job satisfaction studies in countries with migrant workforces, as nationality-based differences may have been present but masked in earlier international studies by aggregating satisfaction across national groups.

**Implications for nursing & health policy**: Policy makers in Saudi Arabia and other countries with migrant nursing workforces should have effective induction programmes that help newly employed nurses—migrant and local—clearly understand their jobs, roles, and responsibilities. Policy makers must have sufficient evidence to modify the reward system to ensure fairness and equality for all.

**Key Words**: Health Service Management, Job satisfaction; Multi-Cultural Issues, Nursing Leadership, Recruitment and Retention.

1. **Background**

Job satisfaction is an important factor in nurse retention (Xue 2015, Burmeister et al. 2019). Shortages in the global nurse labour force and high levels of nurse turnover have been partly attributed to dissatisfaction within the nursing profession and with the working environment (Masum et al. 2016, Lo et al. 2018). Consequently, managing job satisfaction is a vital issue for health care organisations to understand (Al-Dossary et al. 2012).

A systematic review by Lu et al. (2012) identified a number of variables important to the experience of job satisfaction. These included interactions and relationships, workload, scheduling, remuneration, professional training, opportunities of advancement, praise, recognition, control and responsibility.

Since this review, studies across of range of countries have identified further aspects important to job satisfaction such as managerial support, healthy relationships with physicians, and participation in decision making (Aiken et al. 2012, Coetzee et al. 2013, Zhang et al. 2014). Further research has found factors including the length and type of work shift, (Dall’Ora et al. 2015, Ferri et al. 2016), commitment and work climate (Caricati et al. 2014) are associated with job satisfaction. In a recent statement, the International Council of Nurses (2018) emphasise the importunate of nurses’ wellbeing, and inadequate staffing levels on nurse job satisfaction. These studies show a wide range of factors in organisational settings impact on job satisfaction.

While a large body of literature has investigated the factors that influence job satisfaction, these studies are often criticised for taking little account of individual differences. Spector (2012) claimed that what is needed by one group of individuals in terms of a job is different from what is needed by other groups. Therefore, employees’ expectations about what their job should offer will also impact their satisfaction.

A number of individual characteristics are associated with nurses’ job satisfaction. These characteristics have been found to include pay, gender, age, nursing experience, and nursing education (Lee et al. 2016, Lu et al. 2019). A further possible determinant of satisfaction and one that is increasingly relevant in many countries due to widespread migration of the nursing workforce is nationality. The global demand for nurses has resulted in an increasingly multi-national workforce in a number of countries that now consist of significant numbers of expatriate nurses. The issue of nationality is particularly acute in Saudi Arabia, where unique characteristics of the country and its culture have resulted in a shortage in nationals entering nursing and a heavy reliance on non-Saudi nurses. Education and employment opportunities limit women entry into the nursing workforce (Al-Asfour et al. 2017, Altakroni et al. 2019) and there appears to be limited interest to enter training (Al-Omar 2004).

To address the shortages in its nursing workforce, Saudi Arabia employs staff from several countries with which it enjoys cooperative and peaceful relationships such as India and the Philippines. Variations in overseas recruitment policies has resulted in inequity around pay and conditions amongst these workers, with possible implications for job satisfaction (Ball 2004). In light of the multi-national nature of the workforce and the impact that this might have on satisfaction, further research is required.

There is limited evidence to support whether nationality impacts on job satisfaction among nurses in Saudi Arabia, or indeed elsewhere. Two studies found no difference in overall job satisfaction level based on nationality (Al-Aameri 2000, Al-Ahmadi 2002), however, both studies used a generic (not nursing-specific) instrument to measure job satisfaction. Generic instruments are recognised by experts as lower-value in this context than nursing-specific instruments, since they were not specifically designed to measure nurses’ satisfaction and so may fail to explore factors relevant to them (Coomber et al. 2007). The aim of this doctoral study was to examine whether there is an association between nationality and job satisfaction in this contextual setting. Examining these relationships can inform the development of policies designed to support multi-national workforces by creating a healthy working environment, and to retain nurses in the face of shortage.

1. **Methods** 
   1. **Study design**

A quantitative cross-sectional design was used. Nurses from three large hospitals completed a questionnaire to measure job satisfaction. Additional demographic questions captured the nationality of the respondent to enable comparisons in levels of job satisfaction.

The three hospitals were selected dependent on the proportion of migrant nurses making up the workforce. At the first selected hospital (Hospital A), the majority of nurses were non-Saudis. At the second hospital (Hospital B), the majority were Saudi nationals. The third hospital (Hospital C) was selected since it employed the largest variation of nationalities.

* 1. **Setting and participants**

Three government hospitals were included in the study from which 743 nurses took part. Nurse aides and nursing students were excluded from participation. The sample size (743) met the criteria for the study by exceeding the minimum number of subjects needed to perform multiple regression analyses (Tabachnick et al. 2017).

Due to differences between the hospitals in policies around communication, access to information technology and human resource records, a pragmatic, non-probability sampling technique was employed in which participants were sampled and recruited slightly differently in each site. At Hospital A, in line with hospital policy, all nursing staff were emailed inviting them to take part in the study and then to complete the survey online. At Hospital B, hard copies of the questionnaire were handed out across all the wards. At Hospital C, hard copies of the questionnaire were distributed in wards combined with use of emails in some wards inviting nurses to complete the survey online. The online questionnaire was designed and housed using iSurvey.

**2.3 Variables and measurement**

Nurse’s Job satisfaction was measured using McCloskey and Mueller’s Satisfaction Scale (MMSS). The scale consists of 31 items within eight subscales that support Maslow’s three theoretical dimensions of safety, social, and psychological rewards (Mueller et al 1990). Items are measured on a 5 -point Likert, where 1 and 5 indicated ‘very dissatisfied’ and ‘very satisfied’ accordingly. Internal reliability for the scale is high (Cronbach's alpha = 0.92 with subscales ranging from 0. 49 and 0. 81). All the satisfaction subscales as well as the global scale, except for family and work balance, indicate a satisfactory reliability. Additional questions were added to the survey to collect key information around nationality, gender, age, years of nursing experience, the type of hospital, and monthly salary.

**2.4 Ethical considerations**

Ethical approval was granted by the University of Southampton, UK, the Saudi Arabian Ministry of Health, and the individual hospitals research governance committees (Ethics number 10413). Nurses were advised that participation was voluntary. There was no right to withdraw once the questionnaire was submitted. Participants were not required to put their names or any other personal identifying details on the questionnaire. Informed consent was given by adding a statement stating that completion and submission of the questionnaire constituted consent to use their data in this study. The information are reported anonymously, as pseudonyms and codes were used for hospitals in any data selected for dissemination.

**2.5 Statistical analysis**

Consistent with previous studies, an average for each MMSS subscale was calculated. Questionnaires with missing data were excluded on a case-wise basis. Preliminary analysis was used to compare satisfaction across levels of the categorical nursing characteristics (summarised using means and standard deviations plus estimated differences and associated 95% confidence intervals). The primary analysis was a multiple linear regression analysis to estimate the relationship between the nurses’ characteristics and nurses’ satisfaction, controlling for hospital. Descriptive analysis was used to summarise all variables as well as to judge the suitability of the assumptions of the linear model (e.g., scatter plots between continuous characteristics and outcome to check assumption of linearity). Data were analysed using SPSS v.25.0.

1. **Results**

**3.1 Characteristics of the sample**

A summary of the demographic characteristics of the sample are shown in Table 1. The predominant nationalities were Saudi (19.0%), Filipino (41.6%), and Indian (18.6%). Four other nationalities constituted smaller parts of the sample: Jordanian (4.0%), South African (5.1%), Malaysian (5.1%), and British (2.0%). Lastly, an “other” category was created, consisting of a very small number of respondents from a range of nationalities, who together made 4.6% of participants. Participants from Hospital A comprised 33.5% of the total sample, while 32.7% of participants were from Hospital B, and 33.8% were from Hospital C. Characteristics of the nurses who participated in this study differed based on nationality. The mean age of Saudi nurses (27.7 years) was the lowest among all nationalities, and, correspondingly this group were the least experienced (mean years of nursing experience of 3.5). This group also had the lowest rates of people with a Bachelor’s degree or above (23%), with all other groups above 46% except Malaysian (29%) and South African nurses (32%).

Indian and Filipino nurses were paid on average less than other nationalities, with a mean of approximately 5000 and 6,000 Saudi Arabian riyals [SAR], respectively, compared to 10,000 SAR and above for other nationalities. However, although these groups had a majority of people with Bachelor’s degrees, they were also among the younger and least experienced nationalities. Jordanian nurses were of similar age and experience to Filipino nurses but had a higher rate of Bachelor’s degrees and male nurses (70% compared to less than 14% for each other nationality). Malaysian nurses were also of similar age and experience but had a lower rate of Bachelor degrees. South African nurses had highest mean salary (19,000 SAR) possibly reflecting their greater years of experience.

**3.2 Relationship between nationality and job satisfaction**

The 743 nurses in this sample had a mean of 3.24 (SD = 0.52) for overall job satisfaction. Visual assessment of histograms suggested that overall scores were approximately normally distributed (with evidence of a very slight negative skew) within hospital, gender and nationality. Assessment of scatter plots suggested that modelling a linear association between satisfaction and salary, age and experience was suitable.

A one-way ANOVA test was conducted to evaluate the differences in overall job satisfaction across eight nationality groups (Saudi, Filipino, Indian, Jordanian, South African, Malaysian, British and ‘others’). This revealed that there were no statistically significant differences in overall job satisfaction levels among the eight groups (F (7,735) = 0.935, *p*=0.479). Due to the small sample sizes of some nationality groups, all non-Saudis were combined when exploring differences in the job satisfaction subscales. An independent sample t-test was used to explore differences in overall job satisfaction scores between Saudi nurses (n=141; mean, *M*=3.21, standard deviation, *SD*=0.53) and non-Saudi nurses (n=602; *M*=3.25, *SD*=0.47). There was no statistically significant difference between these groups, the mean difference (MD) was 0.04 (95% confidence interval (CI): -0.06 to 0.13, *p*=0.46).

Looking at the subscales of the questionnaire, Saudi and non-Saudi samples did not differ for; satisfaction with scheduling, interaction opportunities, or control and responsibilities. A score on two of the job satisfaction subscales revealed significant differences between Saudi and non-Saudi nurses, with Saudi nurses being more satisfied than expatriate nurses. These two facets covered satisfaction with extrinsic rewards, and with the balance of family and work. In contrast, three of the job satisfaction subscales scores showed significant differences between Saudi and non-Saudi nurses, with expatriate nurses being more satisfied than Saudi nurses with co-workers, with professional opportunities and with praise and recognition.

Table 2 displays the results of the test of differences between Saudi and non-Saudi nurses. Preliminary analysis was used to compare job satisfaction across different groups. An independent sample t-test explored differences in overall job satisfaction between female nurses (n=692; mean, *M*=3.25, standard deviation, *SD*=0.51) and male nurses (n=51; *M*=3.12, *SD*=0.65); the mean difference (MD) was 0.13 (95% confidence interval (CI): -0.02 to 0.28) suggesting a higher level of satisfaction in females not accounting for other factors. A one-way ANOVA with least-significant differences for pairwise comparisons was conducted to evaluate the differences in overall job satisfaction across the three hospitals A (M=3.39, SD=0.54), B (M=3.12, SD=0.45) and C (M=3.20, SD=0.52). Hospital A had higher levels of satisfaction (versus B: MD=0.27, 95% CI 0.18 to 0.36; versus C: MD=0.19, 95% CI 0.10 to 0.28) while B and C were more similar (MD=-0.08, 95% CI -0.17 to 0.01). An independent samples t-test was also used to compare those with a Bachelor’s degree or above to those without, demonstrating potentially only a small difference between these groups (MD=-0.04, 95% CI -0.11 to 0.04).

There was a small positive correlation between each of age and overall job satisfaction (*r*=0.10, 95% CI 0.03 to 0.17) years of nursing experience and overall job satisfaction (0.11, CI 0.04 to 0.18) and monthly salary and overall job satisfaction (0.03, CI -0.04 to 0.11). A strong positive correlation was observed between age and years of nursing experience (r=0.937). As a result, age was excluded from the multiple linear regression due to concerns with multi-collinearity. Years of nursing experience was kept as it was deemed a priori to be more likely to be more relevant to job satisfaction.

A multiple linear regression analysis was used to estimate the relationship between nationality, years of experience, education, gender, salary and type of hospital and nurses’ job satisfaction. Visual inspection of a plot of standardised residuals versus standardised predicted values indicated that the assumption of homoscedasticity did not appear to be violated; likewise, visual inspection of a histogram of residuals suggested the assumption of normally-distributed residuals was not violated.

Results from the regression (R2=0.068) are given in Table 3. Although the data are consistent across nationalities, the coefficients (Bs) and confidence intervals suggest that the Saudi group is generally more satisfied after controlling for other characteristics. The expected difference was largest for South African, British and “other” groups, at 0.3 and above. Education, experience and salary were found to have only relatively small associations with job satisfaction, while female nurses had more noticeable satisfaction on average.

1. **Discussion**

**4.1 Summary of results**

Job satisfaction is considered to be a complex concept, as demonstrated by the numerous variables that have been investigated when studying this concept (Lu et al. 2019). There is no single, simple answer regarding the effects of nationality on job satisfaction, however, differences to the national workforce are apparent. The regression analysis suggested that compared to Saudi nurses, all other nationalities had lower job satisfaction when controlling for other predictors. In other words, Saudi nurses are predicted to be more satisfied compare to expatriate nurses based on all other predictors such as years of experiences and educational qualifications being held constant. The association between nationality and job satisfaction varied across the dimensions of satisfaction.

When comparing Saudi Arabian nurses and non-Saudi nurses, the scores on two of the job satisfaction dimensions revealed significant differences with Saudi nurses being more satisfied than expatriate nurses. These two facets covered satisfaction rewards such as pay and holiday entitlement, and with work/life balance. There are several factors that might explain why Saudi nurses reported higher satisfaction with extrinsic rewards when compared to non-Saudi nurses, although they were not the highest paid. One explanation for lower job satisfaction concerning rewards for non-Saudi nurses when compared to Saudi nurses was the lack of security for expatriate nurses because they do not receive a competitive pension in Saudi Arabia, which might cause them to leave the country and retire in another country. Higher satisfaction with the family and work balance among Saudi nurses might be because they live in their home country. Being away from family and friends was a critical factor in expatriate nurses’ job satisfaction, which corresponded with Li et al. (2014), who noted that it is difficult to live in a place without family support.

In contrast, the mean scores of three of the other job satisfaction subscales revealed significant differences between Saudi and non-Saudi nurses, with Saudi nurses being less satisfied than non-Saudi nurses. The job aspects with which the Saudi nurses were less satisfied included the variables relationships with co-workers, professional opportunities and praise and recognition. Expatriate nurses’ higher mean satisfaction with co-workers might be because most live in accommodations provided by their hospitals, sometimes within shared apartments. This may allow them more opportunities than Saudi nurses to interact and build friendships with their co-workers. In addition, although not a direct consequence of nationality, the relatively low level of satisfaction reported by Saudi nurses in some job aspects might be due to those participating in this study were at an earlier stage of their career. A recent systematic review suggested that newly qualified nurses are not fully prepared for their jobs at the time of qualification and that even when shown to be competent, they do not have the self-confidence to be autonomous professionals (Irwin et al 2018).

* 1. **Limitations**

There are two potential limitations that may impact the study findings. These relate to pragmatic decisions taken in the research process to deal with the real-world environment, and the implications of these limits warrant discussion. The first limitation relates to the approach to sampling the nurses, which utilised non-probability sampling techniques. Using non-probability sampling techniques limits the ability to generalise findings to populations beyond ‘nurses in major Saudi Arabian government hospitals. This pragmatic approach of data collection was required due to local research governance policies and information technology resources.

The second limitation of the study is related to the MMSS and its reliability. Cronbach’s alphas for each of the eight subscales in this study ranged between 0.49 and 0.81, whereas the Cronbach’s alpha for the global scale was 0.92. As mentioned above, all the satisfaction subscales—except for family and work balance—show satisfactory reliability (Taber 2017).

* 1. **Implications for nursing & health policy**

The findings suggest that nationality should be included in job satisfaction studies in countries with migrant workforces. Nationality-based differences may have been present but masked in earlier international studies that examined job satisfaction without considering nationality. Such differences may be attributed to cultural differences in nurses’ working conditions, and understanding these differences is essential to developing strategies and policies that can enhance nurses’ job satisfaction and retention. Even in countries without migrant workforces, differences in satisfaction may arise due to the ethnicity or culture of heterogeneous, multicultural workers.

Continuous education programs designed to improve expatriate nurses’ understanding of the culture and structure of the Saudi healthcare system and to teach them coping strategies can enhance job satisfaction. This type of education can support nurses’ efforts to achieve expected performance levels. Counselling services should also be available for expatriate nurses when and where necessary to alleviate any problems arising from cultural and structural differences. The effects of such programs should be regularly monitored to ensure they meet nurses’ needs.

Transparency to ensure equal pay is also required to lessen dissatisfaction. Policy makers must have sufficient evidence to appropriately modify the reward system to ensure fairness and equality for all. Policy makers in Saudi Arabia and other countries with migrant nursing workforces should also develop effective induction programmes to help newly employed nurses—both migrant and local—clearly understand their jobs, roles, and responsibilities and to enhance staff integration.

1. **Conclusion**

Compared to Saudi nurses, expatriate nurses had overall lower job satisfaction after controlling for other predictors. While expatriates were less satisfied than Saudi nurses about extrinsic rewards and family-work balance, however, Saudi nurses were less satisfied than expatriate nurses about their professional opportunities, praise and recognition, and co-worker relationships. Further research is recommended to consider the factors underlying nurses’ job satisfaction differences based on nationality and ethnicity. Such research will help nursing and hospital managers develop policies to improve work environments and alleviate problems that cause dissatisfaction. Offering expatriate nurses counselling services and education programs to teach them about the culture of the Saudi healthcare system can enhance their job satisfaction. Gathering sufficient evidence before modifying the reward system can ensure fairness and equality. Improving nurses’ satisfaction in these areas may result in improved retention rates.

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Table 1: Demographic characteristics [age, gener, academic qualification, years of experience, and monthly salary in Saudi Arabian riyals (SAR)] of participants according to nationality]

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Nationality | Total | Hospital A | Hospital B | Hospital C | Age (Years) | | Gender | Bachelor’s degree or higher | Experiences (Years) | | Monthly salary 000’s SAR | |
|  | N | n | n | n | Mean | (SD) | % female | % | Mean | (SD) | Mean | (SD) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Saudi | 141 | 7 | 112 | 22 | 27.7 | (4.2) | 93.6% | 23.4% | 3.5 | (3.4) | 10.4 | (4.3) |
| Filipino | 309 | 112 | 74 | 123 | 36.5 | (8.6) | 95.5% | 64.9% | 13.1 | (8.1) | 6.1 | (2.0) |
| Indian | 138 | 87 | 51 | 0 | 31.8 | (6.4) | 100.0% | 62.0% | 8.9 | (6.1) | 5.0 | (1.2) |
| Jordanian | 30 | 18 | 4 | 8 | 35.7 | (4.0) | 30.0% | 93.3% | 12.8 | (3.5) | 12.8 | (2.0) |
| South African | 38 | 16 | 0 | 22 | 48.8 | (7.5) | 97.4% | 31.6% | 25.9 | (8.0) | 19.1 | (3.2) |
| Malaysian | 38 | 3 | 0 | 35 | 36.5 | (8.5) | 100.0% | 28.9% | 13.7 | (7.4) | 13.4 | (3.3) |
| British | 15 | 2 | 0 | 13 | 45.2 | (10.0) | 86.7% | 46.7% | 19.3 | (11.8) | 18.9 | (6.2) |
| Others | 34 | 4 | 2 | 28 | 43.0 | (11.9) | 88.2% | 47.1% | 19.2 | (10.8) | 18.3 | (7.4) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 743 | 249 | 243 | 251 | 35.2 | (9.2) | 93.1% | 52.9% | 11.6 | (8.9) | 8.8 | (5.4) |

Table2: Test of job satisfaction differences between Saudi and expatriate nurses

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Saudi | | Non-Saudi | | Total | | Mean differnces | 95% CI | p-value |
| Mean | n | Mean | n | Mean | n |
| Overall job satisfaction | 3.21 | 141 | 3.25 | 602 | 3.24 | 743 | 0.04 | -0.06 to 0.13 | 0.46 |
| Extrinsic rewards | 3.34 | 141 | 2.97 | 602 | 3.04 | 743 | -0.36 | -0.51 to -0.22 | <0.005 |
| Scheduling | 3.34 | 141 | 3.46 | 602 | 3.44 | 743 | 0.13 | -0.01 to 0.26 | 0.06 |
| Family/work balance | 3.00 | 141 | 2.47 | 602 | 2.57 | 743 | -0.53 | -0.66 to -0.40 | <0.005 |
| Co-workers | 3.28 | 141 | 3.66 | 602 | 3.59 | 743 | 0.38 | 0.24 to 0.52 | <0.005 |
| Interaction opportunity | 3.53 | 141 | 3.56 | 602 | 3.55 | 743 | 0.03 | -0.10 to 0.16 | 0.62 |
| Professional opportunity | 2.63 | 141 | 3.02 | 602 | 2.94 | 743 | 0.39 | 0.26 to 0.52 | <0.005 |
| Praise /recognition | 3.28 | 141 | 3.53 | 602 | 3.49 | 743 | 0.25 | 0.10 to 0.41 | <0.005 |
| Control/ responsibility | 3.29 | 141 | 3.29 | 602 | 3.29 | 743 | 0.00 | -0.14 to 0.13 | 0.95 |

Table 3: Regression of job satisfaction, nationality, type of hospital, experience, monthly salary, gender, and academic qualification

|  |  |  |  |
| --- | --- | --- | --- |
|  | B | 95% CI | p-value |
| **Nationality** (reference: Saudi) |  |  |  |
| Filipino | -0.12 | -0.30 to 0.07 | 0.22 |
| Indian | -0.08 | -0.26 to 0.10 | 0.39 |
| Jordanian | -0.19 | -0.44 to 0.05 | 0.12 |
| South African | -0.42 | -0.65 to -0.20 | <0.005 |
| Malaysian | -0.03 | -0.24 to 0.18 | 0.81 |
| British | -0.30 | -0.61 to 0.00 | 0.05 |
| Other | -0.33 | -0.55 to -0.10 | <0.005 |
| **Hospital** (reference: A) |  |  |  |
| B | -0.31 | -041 to -0.20 | <0.005 |
| C | -0.23 | -0.34 to -0.11 | <0.005 |
| Years of experience | 0.01 | 0.00 to 0.01 | 0.02 |
| Salary (000’s SAR; mean-centred) | 0.01 | -0.01 to 0.03 | 0.26 |
| Gender (reference: female) | -0.17 | -0.33 to 0.00 | 0.05 |
| Education (reference: diploma or associate degree) | -0.03 | -0.12 to 0.07 | 0.59 |