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EXPLORING THE RELATIONSHIP BETWEEN INTERPROFESSIONAL TEAM CLIMATE AND JOB SATISFACTION AMONG PHYSICIANS, DENTISTS, NURSES, PHARMACISTS, RESPIRATORY THERAPISTS, AND HOSPITAL MANAGERS IN A SAUDI ARABIAN ARMED FORCES HOSPITAL

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Abstract

Objective: To explore the relationship between interprofessional team climate and job satisfaction among healthcare professionals in a Saudi Arabian military hospital.

Methods: A cross-sectional survey study was conducted at Hafr Al-Batin Armed Forces Hospital in Saudi Arabia. A total of 248 healthcare professionals, including physicians, dentists, nurses, pharmacists, respiratory therapists, and hospital managers, completed the Team Climate Inventory

(TCI) and the Job Satisfaction Survey (JSS). Pearson correlation and multiple regression analyses were performed to assess the relationship between TCI and JSS scores.

Results: A significant positive correlation was found between overall TCI and JSS scores (r=0.74, p<0.001). Among the TCI subscales, vision (r=0.69, p<0.001), participative safety (r=0.67, p<0.001), task orientation (r=0.65, p<0.001) and support for innovation (r=0.61, p<0.001) had significant correlations with job satisfaction. Multiple regression analysis revealed that the TCI subscales collectively explained 59.4% of the variance in job satisfaction (R²=0.594, F(4,243)=89.38, p<0.001). Vision was the strongest predictor of job satisfaction (β=0.32, p<0.001), followed by participative safety (β=0.26, p<0.001), task orientation (β=0.22, p<0.001) and support for innovation (β=0.17, p<0.01).

Conclusions: A positive team climate is strongly associated with higher job satisfaction among interprofessional healthcare teams in a Saudi military hospital setting. Strategies to enhance shared vision, psychological safety, commitment to excellence and support for innovation may promote job satisfaction and staff retention. Further research is needed to identify interventions to foster these team attributes.

Keywords: interprofessional collaboration; team climate; job satisfaction; military hospital; healthcare professionals; Saudi Arabia

1. Introduction

Interprofessional collaboration in healthcare is increasingly recognized as essential for providing high-quality, patient-centered care. Effective teamwork among diverse healthcare professionals, including physicians, nurses, pharmacists, and allied health staff, has been linked to improved clinical outcomes, patient safety, staff well-being and organizational efficiency (World Health Organization, 2010). A positive team climate, characterized by shared objectives, inclusive participation, constructive controversy and reflexivity, is thought to be a key enabler of successful interprofessional collaboration (Agreli et al., 2017).

Despite the acknowledged benefits, fostering interprofessional teamwork can be challenging, particularly in complex healthcare environments like acute care hospitals. Differing professional cultures, hierarchical power structures, communication barriers and role ambiguity are common obstacles (Kislov et al., 2016). In military hospitals, the hierarchical command structure and high staff turnover present additional challenges for interprofessional collaboration (Chargualaf et al., 2018). Conversely, the shared organizational identity and mission focus in military settings may facilitate teamwork (Redmond et al., 2015).

Job satisfaction, or the extent to which employees like their work, is an important indicator of staff well-being and a predictor of retention and performance (Lu et al., 2019). Multiple studies have shown positive associations between job satisfaction of healthcare professionals and quality of patient care (Mache et al., 2020). Interpersonal relationships and team climate have been identified

as key determinants of job satisfaction in healthcare settings (Domagała et al., 2018). However, the specific relationship between interprofessional team climate and job satisfaction has not been widely examined, particularly in non-Western healthcare contexts.

Saudi Arabia has a unique healthcare system, with a mix of government-run and private institutions. The Ministry of Defense operates a network of 27 hospitals across the Kingdom, serving military personnel, their families and retirees (Almalki et al., 2011). While the Saudi government has prioritized development of the healthcare infrastructure and workforce, challenges related to interprofessional collaboration remain (Alsulaimani et al., 2020). Most prior studies on teamwork and staff well-being in Saudi healthcare settings have focused on nurses (Abo-Habieb et al., 2020; Alshahrani & Baig, 2016). Examining these issues among diverse military healthcare professionals could inform future initiatives to enhance collaboration and job satisfaction.

The purpose of this cross-sectional survey study was to explore the relationship between interprofessional team climate and job satisfaction among healthcare professionals working in a Saudi military hospital. The specific objectives were:

1. To assess the levels of perceived team climate and job satisfaction among physicians, dentists, nurses, pharmacists, respiratory therapists, and hospital managers.
2. To examine correlations between team climate dimensions and job satisfaction.
3. To identify the key predictors of job satisfaction among the interprofessional team climate dimensions.

Understanding these relationships could guide hospital administrators and policymakers in designing targeted interventions to foster positive team dynamics and promote healthcare professional well-being and retention. The insights could also inform interprofessional education strategies to equip future military healthcare professionals for collaborative practice.

2. Methods

2.1 Study Design and Setting

A cross-sectional survey study was conducted at Hafr Al-Batin Armed Forces Hospital, a 400-bed tertiary care military hospital located in the Eastern province of Saudi Arabia. The hospital provides comprehensive healthcare services to active-duty and retired military personnel and their dependents.

2.2 Participants and Sampling

The study population included all healthcare professionals employed at the hospital, including physicians, dentists, nurses, pharmacists, respiratory therapists, and hospital managers. A convenience sampling method was used. Eligibility criteria included being a full-time employee with at least 6 months of service at the hospital and being willing to participate voluntarily. A sample size calculation indicated that a minimum of 194 participants was needed to detect a

medium effect size (ρ=0.30) with 80% power and alpha of 0.05, based on a population of approximately 500 healthcare professionals.

2.3 Instruments

2.3.1 Team Climate Inventory (TCI)

The TCI is a validated 44-item questionnaire that measures team members' perceptions of their work group's climate for innovation (Anderson & West, 1998). It assesses four dimensions:

1. Vision: clarity, perceived value, and attainability of the team's objectives
2. Participative safety: active involvement in group interactions and information sharing, in a psychologically safe environment
3. Task orientation: commitment to high standards of performance, with constructive criticism and appraisal of weaknesses
4. Support for innovation: expectation, approval and practical support for new ideas

Respondents rate their agreement with each statement on a 5-point Likert scale (1=strongly disagree to 5=strongly agree). Higher scores indicate a more positive team climate. The TCI has demonstrated good internal consistency (Cronbach's alpha 0.84-0.94) and construct validity in healthcare settings (Beaulieu et al., 2014).

2.3.2 Job Satisfaction Survey (JSS)

The JSS is a widely used 36-item scale that assesses nine facets of job satisfaction (Spector, 1985):

1. Pay
2. Promotion
3. Supervision
4. Fringe benefits
5. Contingent rewards
6. Operating procedures
7. Co-workers
8. Nature of work
9. Communication

Each facet is measured by four items rated on a 6-point Likert scale (1=disagree very much to 6=agree very much). The total score ranges from 36-216, with higher scores indicating greater job satisfaction. The JSS has shown acceptable to good internal consistency (Cronbach's alpha 0.60-0.91) and evidence of construct validity across diverse occupations (Spector, 1997), including healthcare professionals (Batura et al., 2016).

The survey also collected data on participants' demographic and professional characteristics, including age, gender, nationality, profession, education, years of experience, and department.

2.4 Data Collection

After obtaining approvals from the hospital's research ethics committee and administration, the primary researcher introduced the study at departmental meetings and invited healthcare professionals to participate. Anonymous paper-based surveys were distributed to all eligible staff. Completion and return of the survey constituted implied consent. Data collection occurred over a 4-week period in March 2023.

2.5 Data Analysis

Survey data were entered into SPSS version 25.0 for analysis. Descriptive statistics, including means, standard deviations, frequencies and percentages, were calculated for participant characteristics and survey scores. Pearson correlation coefficients were computed to assess bivariate relationships between TCI subscales and JSS total score. Multiple linear regression analyses were conducted to examine the predictive value of TCI subscales on job satisfaction, controlling for relevant demographic and professional variables. Statistical significance was set at $p<0.05$.

3. Results

3.1 Participant Characteristics

Out of the 500 surveys distributed, 286 were returned, and 248 complete responses were included in the analysis, resulting in a response rate of 57.2%. Participant characteristics are presented in Table 1. The majority of participants were nurses (45.2%), followed by physicians (22.6%), respiratory therapists (10.5%), pharmacists (8.9%), hospital managers (6.9%), and dentists (6.0%). Most participants were Saudi nationals (88.3%), female (61.7%), aged 30-39 years (48.8%), and held a bachelor's degree (73.4%). Participants' years of experience ranged from 1 to 30 years, with a mean of 9.6 years (SD=6.2).

Table 1 *Demographic and Professional Characteristics of Participants (N=248)*

Characteristic	**n (%)**
Profession	
Physician	56 (22.6)
Dentist	15 (6.0)
Nurse	112 (45.2)
Pharmacist	22 (8.9)
Respiratory Therapist	26 (10.5)
Hospital Manager	17 (6.9)

Age (years)	
<30	72 (29.0)
30-39	121 (48.8)
40-49	46 (18.5)
≥50	9 (3.6)
Gender	
Male	95 (38.3)
Female	153 (61.7)
Nationality	
Saudi	219 (88.3)
Non-Saudi	29 (11.7)
Education	
Diploma	44 (17.7)
Bachelor	182 (73.4)
Master/PhD	22 (8.9)
Experience (years)	Mean±SD
	9.6±6.2

3.2 Perceived Team Climate and Job Satisfaction

Descriptive statistics for TCI and JSS scores are presented in Table 2. The mean total TCI score was 165.38 (SD=24.61) out of 220, indicating a generally positive perception of team climate. Task orientation had the highest mean score (43.17, SD=6.58) among the TCI subscales. The overall JSS mean score was 143.74 (SD=27.85) out of 216, suggesting a moderate level of job satisfaction. Satisfaction was highest for nature of work (M=20.08, SD=3.64) and lowest for operating conditions (M=12.42, SD=4.21).

Table 2 *Descriptive Statistics for Team Climate and Job Satisfaction Scores*

Scale	Possible Range	Mean±SD
TCI Total	44-220	165.38±24.61
Vision	11-55	40.92±7.83
Participative Safety	12-60	45.63±7.52
Task Orientation	11-55	43.17±6.58
Support for Innovation	10-50	35.66±5.91
JSS Total	36-216	143.74±27.85
Pay	4-24	14.81±4.77
Promotion	4-24	13.39±4.65
Supervision	4-24	18.05±4.12
Fringe Benefits	4-24	15.22±4.93
Contingent Rewards	4-24	15.61±4.82
Operating Conditions	4-24	12.42±4.21
Coworkers	4-24	17.58±3.97
Nature of Work	4-24	20.08±3.64
Communication	4-24	16.58±4.10

3.3 Correlation Between Team Climate and Job Satisfaction

Pearson correlation analysis indicated a strong positive correlation between overall TCI and JSS scores ($r=0.74$, $p<0.001$). Each TCI subscale also showed significant positive correlations with the total JSS score, with vision demonstrating the strongest correlation ($r=0.69$, $p<0.001$), followed by participative safety ($r=0.67$, $p<0.001$), task orientation ($r=0.65$, $p<0.001$), and support for innovation ($r=0.61$, $p<0.001$).

Table 3 *Pearson Correlations Between Team Climate and Job Satisfaction Scores*

Variable	JSS Total
TCI Total	0.74**
Vision	0.69**

Participative Safety	0.67**
Task Orientation	0.65**
Support for Innovation	0.61**
p<0.001	

3.4 Predictors of Job Satisfaction

The multiple regression model using the four TCI subscales as predictors for JSS total score was statistically significant (R^2=0.594, F(4,243)=89.38, p<0.001). The TCI subscales collectively explained 59.4% of the variance in job satisfaction scores. Vision was the strongest predictor (β=0.32, p<0.001), followed by participative safety (β=0.26, p<0.001), task orientation (β=0.22, p<0.001), and support for innovation (β=0.17, p<0.01). None of the demographic or professional characteristics significantly predicted job satisfaction when included in the model.

Table 4 *Multiple Regression Analysis Predicting Job Satisfaction from Team Climate Subscales*

Predictor	**B**	**SE B**	**β**
Vision	1.14	0.21	0.32**
Participative Safety	0.95	0.20	0.26**
Task Orientation	0.93	0.22	0.22**
Support for Innovation	0.81	0.24	0.17*
R^2	0.594		
F	89.38		
p<0.01, **p<0.001			

4. Discussion

This study explored the relationship between interprofessional team climate and job satisfaction among healthcare professionals in a Saudi Arabian military hospital. The results showed a strong positive correlation between overall perceived team climate and job satisfaction, supporting the hypothesis that a more positive team environment is associated with higher staff satisfaction. This finding aligns with previous studies linking teamwork quality to job satisfaction in healthcare settings (Dahlke et al., 2018; Pereira et al., 2020).

All four dimensions of team climate measured by the TCI (vision, participative safety, task orientation, and support for innovation) had significant positive correlations with job satisfaction.

Vision emerged as the strongest predictor, highlighting the importance of having clear, shared and valued team objectives for staff satisfaction. This supports West's (1990) proposition that vision is a core component of effective team functioning. Participative safety was the second strongest predictor, emphasizing the role of inclusive involvement and psychologically safe interaction in fostering both teamwork and satisfaction (O'Leary, 2016). Task orientation and support for innovation also explained unique variance in satisfaction, consistent with research showing that teams with a shared commitment to excellence and openness to change tend to be more productive and resilient (Schmutz et al., 2019).

The overall perceived team climate in this study was generally positive across all professional groups, contrasting with some prior research indicating challenges in interprofessional collaboration, particularly between physicians and other health professionals (Alcantara et al., 2022). The lack of significant differences in TCI or JSS scores based on profession, as well as the non-significant effect of demographic and professional variables on the relationship between team climate and satisfaction, suggests that effective teamwork and its benefits cut across disciplinary boundaries and hierarchies. This is encouraging for the feasibility of interprofessional collaboration in this context.

However, the moderate levels of job satisfaction found in this study warrant attention. The JSS scores indicate potential for improvement in several domains, particularly system-level factors like pay, promotion opportunities and operating conditions. Prior research has identified compensation and advancement as key drivers of healthcare professional satisfaction and retention (Alhakami & Baker, 2018). Improving these organizational supports, in addition to fostering positive team dynamics, may enhance staff well-being, performance and stability.

These findings have practical implications for healthcare leaders and policymakers aiming to optimize interprofessional collaboration and staff well-being. Strategies to establish shared team goals, promote participative safety and information sharing, reinforce a collective focus on excellence, and encourage innovation may enhance both teamwork and satisfaction. These could include interprofessional teambuilding activities, communication skills training, psychological safety initiatives, quality improvement projects and innovation challenges (Körner et al., 2016; Romijn et al., 2018). Such interventions should be integral to the organizational culture and rooted in the distinctive context of military healthcare.

The study has several limitations. The cross-sectional design precludes conclusions about causality or directionality of the observed associations. The use of self-report measures may introduce response bias. The single hospital setting limits generalizability to other contexts. Future research employing longitudinal designs, objective measures of team dynamics and outcomes, and multi-site sampling could provide more robust evidence. Qualitative studies could offer deeper insight into the lived experiences and contextual factors shaping interprofessional collaboration and satisfaction.

5. Conclusions

This study demonstrates a strong positive relationship between interprofessional team climate and job satisfaction among healthcare professionals in a Saudi Arabian military hospital. Vision, participative safety, task orientation and support for innovation were key predictors of staff satisfaction. The findings highlight the importance of fostering shared objectives, psychological safety, commitment to excellence and openness to change within healthcare teams. Interprofessional teambuilding and quality improvement initiatives could enhance both collaboration and well-being. Healthcare leaders should prioritize team climate development as an integral strategy to promote staff satisfaction, retention and performance, in service of high-quality patient care.

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