

Nurses' cultural competence and its impact on work engagement and teamwork in community medical centers healthcare network in Central California, USA



Gemma Stela L. Imperial^{1,2}, Evelyn E. Feliciano^{1,2,*}, Alfredo Z. Feliciano^{1,3}, Mary Angelica P. Bagaoisan¹, Cyrelle D. Agunod^{1,4}, Delma Joie D. Magtubo^{1,5}, Anna Lyn M. Paano¹

¹College of Nursing and Graduate Studies, Angeles University Foundation, Angeles, Philippines

²Intensive Care Unit Stepdown, Clovis Community Medical Center, Clovis, Central California, USA

³Encompass Health Rehabilitation Hospital, Mesa, Arizona, USA

⁴College of Nursing, Northern Private College of Nursing, Arar, Saudi Arabia

⁵Graduate School, Holy Angel University, Angeles, Philippines

ARTICLE INFO

Article history:

Received 29 April 2024

Received in revised form

24 August 2024

Accepted 13 September 2024

Keywords:

Cultural competence

Work engagement

Teamwork

Nurses

Diversity

ABSTRACT

This study explores the relationship between nurses' cultural competence and their work engagement and teamwork in hospitals at a tertiary private medical center in Central California. Using a correlational method, data were collected from 357 nurses, primarily female, aged 37-38, and of Asian descent. The Self-Assessment Cultural Competence Checklist, Utrecht Work Engagement Scale (WES-9), and Nursing Teamwork Scale (NTS) were used to measure these variables. Pearson's correlation analysis revealed a positive association between cultural competence, work engagement, and teamwork, indicating that differences in beliefs can enhance collaboration and team cohesion among healthcare workers from diverse backgrounds. These findings highlight the importance of cultural competence in fostering effective teamwork and relationships in a multicultural healthcare environment.

© 2024 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

People migrate in search of economic opportunities and due to challenges from climate change and environmental factors. The United States (US) hosts many ethnic groups because of its immigrant population. According to the US Census Bureau, the country is expected to become more culturally diverse in the coming years. By 2043, non-Latino whites are projected to become a minority. Additionally, by 2060, the multiracial population is expected to triple, increasing from 7.5 million to around 26.7 million. This growing diversity may create challenges for the healthcare system, as different cultural backgrounds can result in varying healthcare needs (Nair and Adetayo, 2019). In California, nearly one in three healthcare workers is foreign-born, compared to one in six nationwide. Despite its diversity, California has not experienced

healthcare dysfunction. In fact, diverse groups, including Latinos and Asian/Pacific Islanders, have contributed to health outcomes that are better than the national average. This suggests that diversity can positively impact healthcare improvements (Hsu et al., 2018).

The need to hire and retain varied healthcare workers is demonstrated by the increasing number of minority populations combined with the increasing imbalance of healthcare professionals all over the country. As the population diversifies, it is common for healthcare providers to take care of patients from different ethnic environments. Recognizing cultural trends while respecting each patient's choices is one of the foundations of intercultural care. Nurses, who constitute a majority of the workforce in the healthcare system, are expected to be aware and responsive to patients from various cultural backgrounds (Stubbe, 2020). Nurses from minority backgrounds constitute 19.2% of the healthcare workers (Smiley et al., 2018). The Registered Nurse (RN) population in the US consists of White/Caucasian (80.8%), Asian (7.5%), African American (6.2%), Hispanic (5.3%), American Indian/Alaskan Native (0.4%), and Native Hawaiian/Pacific Islander (0.5%). Regardless of cultural backgrounds, nurses must deliver required

* Corresponding Author.

Email Address: feliciano.evelyn@auf.edu.ph (E. E. Feliciano)

<https://doi.org/10.21833/ijaas.2024.09.019>

Corresponding author's ORCID profile:

<https://orcid.org/0000-0001-9120-1534>

2313-626X/© 2024 The Authors. Published by IASE.

This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

functions according to the job description with emphasis on active engagement.

Organizations invest in motivated healthcare workers because of their impact on quality patient outcomes (Torabinia et al., 2017). As work engagement represents an individual's aspect of work, nurses must develop a positive and fulfilling mindset characterized by vigor, dedication, and absorption (Kim and Seo, 2021). Several factors contribute to work engagement, and understanding the nurses' well-being can improve their engagement in the workplace (Engelbrecht et al., 2020).

Meanwhile, gaining insights among different healthcare professionals is essentially the first step before developing effective teamwork in the workplace (Kumra et al., 2020). When tasks are complex in the working environment, efficient teams can break down unmanageable tasks into simpler ones. Unsuccessful teams struggle with these challenges and deteriorate eventually (Rosengarten, 2024). Teamwork involves sound interpersonal relationships, expectations of each member's roles, and delegation practices. When practices are nurtured, mutual trust, backup behaviors, and collective orientation support efficient collaboration (Goh et al., 2020).

Organizations that emphasize culturally competent care services can better respond to the individualized needs of the public. Nurses who are culturally competent can demonstrate awareness of their patients' needs by considering their own values and beliefs that affect their health. When nurses become culturally competent, they can better communicate with their co-workers and patients, which reflects higher engagement with their work. This transformational process of each individual employee allows the organization to survive, making it a fundamental element of growth and development (Halm, 2011).

Cultural competence is a varied concept that relates to one's cross-cultural sensitivity or manner and awareness, knowledge, and expertise to culture (Shen, 2015). Successful interactions between the healthcare team and patients are required for standard healthcare (Sandhya Negi et al., 2017), which also explains the relative importance of teamwork when cultural competence is possessed by the healthcare team members. Additionally, a lack of cultural perceptions affects a person's behavior regarding intercultural care and affects healthcare providers' insights into their willingness to render care to culturally diverse patients (Marshall et al., 2017). Healthcare systems rely on teamwork and collaboration of employees across organizational, disciplinary, and cultural boundaries (Rosen et al., 2018). A thorough understanding of the social and cultural aspects of an illness, along with a medical practitioner's awareness of their own strengths and limitations in communication, is considered essential

for overcoming many challenges in interactions (Li et al., 2017). The ability to provide culturally competent care and the presence of a culturally diverse nursing workforce are strongly linked, as recognized by nursing leaders. Nurses must be sensitive to and understanding of different cultures in order to deliver high-quality care to all patients. Achieving health equity requires a diverse nursing workforce to advance progress. One of the key factors in improving the quality and effectiveness of care for diverse populations is cultural awareness among healthcare professionals. Cultural awareness education should be a fundamental part of nursing education, as it involves being mindful of and supporting the habits and beliefs of other cultures.

Despite this understanding, health disparities among diverse populations remain a persistent issue. Identifying effective strategies to bridge the healthcare gap across cultures has been difficult, particularly with the transitions nurses face in various work environments. It is crucial to examine how cultural competence impacts nurses' work engagement and teamwork, as this plays a key role in ensuring quality care and enhancing the well-being of healthcare professionals. Understanding the connection between nurses' cultural competence, work engagement, and teamwork is therefore essential. This study aims to provide insights into how culturally relevant and responsive nursing practices can be developed.

Cultural competence (Fig. 1) is crucial in the healthcare sector, encompassing cultural knowledge and awareness (Watt et al., 2016; García-Sierra et al., 2016). It improves patient care and nursing practice by fostering a sense of dedication, vigor, and absorption among nurses (García-Sierra et al., 2016; Bargagliotti, 2012; Schaufeli et al., 2009). Cultural competence also positively impacts work engagement among nurses, enhancing their ability to navigate patient care intricacies. This leads to improved job satisfaction, reduced burnout, and better patient outcomes. Cultural competence also significantly impacts nursing teamwork, which is a cornerstone of quality healthcare delivery. Effective teamwork fosters trust, mutual respect, and shared goals, leading to better nursing practice. Work engagement, characterized by vigor, absorption, and dedication, may mediate the influence of cultural competence on nursing teamwork (Costello et al., 2021; Zhao et al., 2021; Kaiser and Westers, 2018; Barton et al., 2018; Salas et al., 2005). Nurturing cultural competence among nursing professionals enhances care quality, work engagement, and overall team effectiveness (Costello et al., 2021; Zhao et al., 2021; Kaiser and Westers, 2018; Barton et al., 2018; Salas et al., 2005). Empirical research can further advance understanding of how healthcare organizations can promote cultural competence, creating a more engaged and cohesive nursing workforce.

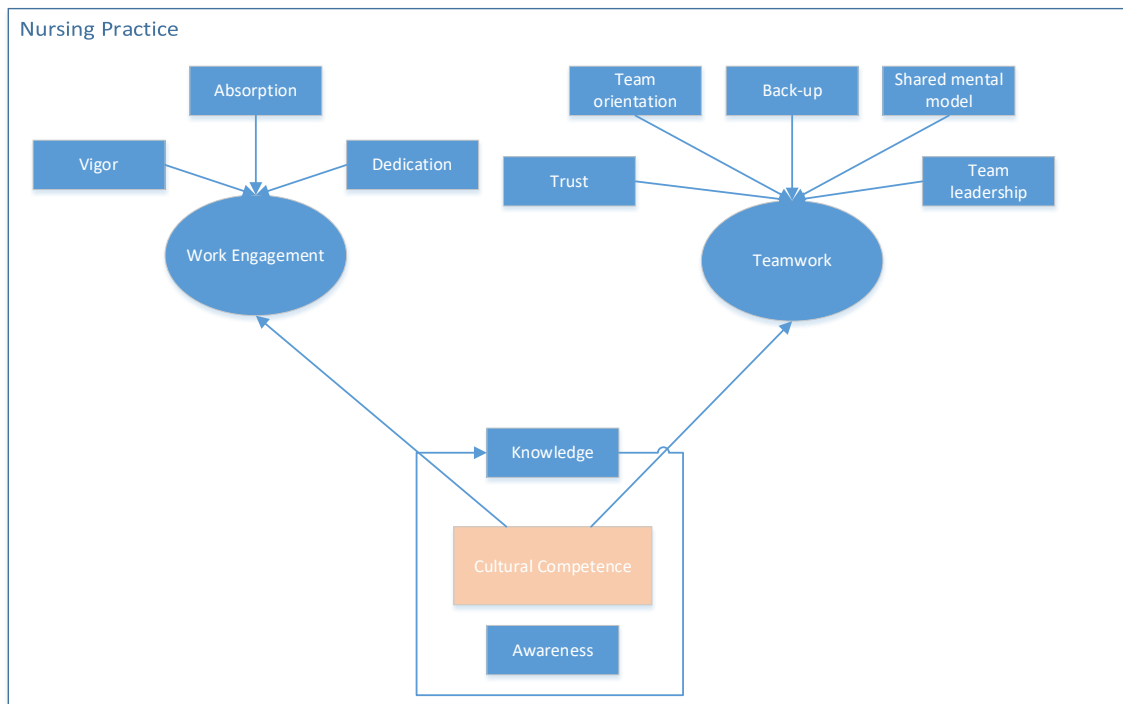


Fig. 1: Conceptual framework

The overall objective of this research was to examine the significant relationship between nurses' cultural competence and their work engagement and teamwork in selected hospitals within the Community Medical Centers Healthcare Network in Central California, USA. Specifically, the study aimed to address the following:

1. To assess the respondents' work engagement according to their vigor, absorption, and dedication.
2. To assess the respondents' teamwork according to their trust, team orientation, backup, shared mental model, and team leadership.
3. To determine the significant relationship between the respondents' cultural competence and work engagement.
4. To determine the significant relationship between the respondents' cultural competence and teamwork?
5. To identify the implications of study findings to the nursing practice.

2. Methods

The study employed a correlational design to investigate the relationships between three key variables: cultural competence, work engagement, and nursing teamwork. Specifically, it aimed to explore the significant relationship between cultural competence and work engagement, as well as between cultural competence and nursing teamwork.

The sample size for the study was determined using the RaoSoft sample size calculator based on a 5% margin of error, a 95% confidence level, and an assumed response rate of at least 50%. From a population of 2,987 nurses, a total sample size of 342

was estimated. Three hospitals in Central California were selected for the study: Hospital A contributed 225 respondents from a total of 1,969 nurses (65.92%), Hospital B provided 96 respondents from a total of 836 nurses (27.99%), and Hospital C contributed 21 respondents from a total of 182 nurses (6.09%). Survey questionnaires were administered to the selected respondents using a purposive sampling technique, with criteria set by the authors. The inclusion criteria were: (1) nurses of either gender; (2) those who had been working in the selected hospitals for at least one year; and (3) those who consented to participate. Nurses were excluded if they (1) worked as certified nursing assistants or caregivers, (2) were on leave or absent during data collection, or (3) did not provide consent to participate.

The study was conducted in selected hospitals from a private tertiary medical center healthcare network in Central California. This setting allowed for a larger sample size, thereby increasing the generalizability of the results. California is known for its high number of immigrant nurses, with nearly one in three healthcare workers being foreign-born, compared to one in six nationwide.

The research instrument consisted of four sections: a socio-demographic profile and assessments of cultural competence, work engagement, and nursing teamwork. The survey was distributed electronically via Google Forms and sent to the nurses' email addresses.

1. Sociodemographic profile: This section gathered information about the respondents' age, gender, civil status, job position, years of experience, race, country of origin, and religion. While these were not the main variables of the study, they helped to create a profile of the respondents.

2. Cultural competence self-assessment checklist: This 24-item tool, developed by the Central Vancouver Island Multicultural Society, assesses cultural competence through two domains: awareness (items 1-11) and knowledge (items 12-24). Respondents rated statements on a 4-point Likert scale ranging from "never" (1) to "always/very well" (4). The tool, with a Cronbach alpha of 0.73, is a reliable measure of cultural competence. Scores are calculated by summing responses for each domain and for the overall tool, with higher scores indicating greater cultural competence.
3. Work engagement: The 9-item Utrecht Work Engagement Scale (UWES) was used to measure work engagement across three dimensions: vigor, dedication, and absorption. Respondents rated statements on a 7-point Likert scale, with scores ranging from 0 (never) to 6 (always). The total score is calculated by summing the scores from each dimension, with higher scores reflecting higher levels of work engagement.
4. Nursing teamwork scale (NTS): This 33-item tool assesses perceptions of nursing teamwork in acute care settings. It includes five domains: trust, team orientation, backup, shared mental model, and team leadership. Respondents rated statements on a 5-point Likert scale ranging from 0 (rarely) to 4 (always). The highest possible score is 132, with higher scores indicating stronger nursing teamwork. The tool demonstrated high reliability, with Cronbach's alpha values ranging from 0.737 to 0.911.

Following approval of the research project and permission to use and adapt the questionnaire, data collection began. Each respondent was emailed a link to the Google Form questionnaire, along with an informed consent form. Respondents had at least one week to complete the survey. For data analysis, the authors used frequency and percentage distribution, mean, standard deviation, the Shapiro-Wilk test, and Pearson product-moment correlation. These statistical methods ensured consistency, reliability, and accuracy in summarizing, analyzing, and interpreting the data.

3. Results

The findings of the study are presented and followed by a cross-case analysis. In cross-case analysis, the study considered the areas in which these two particularistic case studies suggest the same points and differences.

3.1. Nurses' socio-demographic and work profile

Table 1 presents the socio-demographic and work profile of the 357 nurses. The majority of respondents are between the ages of 37 and 38 (mean = 37.16, SD = ±9.724), predominantly female (235, 65.8%), and married (189, 52.9%). Most of the nurses work in Hospital A (211, 59.1%) and hold the

position of registered nurse (313, 87.7%). In terms of ethnicity, most are Asian (207, 58.0%) or White/Caucasian (77, 21.6%), with a large proportion coming from the Philippines (101, 28.3%) and the United States (166, 46.5%). The majority of nurses identify as Roman Catholic

Table 1: Nurses' socio-demographic and work profile (N=357; Age: mean = 37.16, SD = ±9.724)

	f	%
Gender		
Male	122	34.2
Female	235	65.8
Civil status		
Single	143	40.1
Married	189	52.9
Separated	6	1.7
Divorced	13	3.6
Widow/widower	6	1.7
Hospital		
A	211	59.1
B	135	37.8
C	11	3.1
Work position		
Registered nurse	313	87.7
Nurse supervisor	27	7.6
Break RN	6	1.7
House supervisor	5	1.4
Resource RN	2	.6
Assistant chief nursing officer	1	.3
Others	3	.8
Race		
African American	13	3.6
Asian	207	58.0
Hispanic	51	14.3
Native Hawaiian/ Pacific Islander	2	.6
White/ Caucasian	77	21.6
Other	7	2.0
Country of origin		
Philippines	101	28.3
Mexico	10	2.8
India	15	4.2
Ukraine	4	1.1
United States	166	46.5
Haiti	4	1.1
Germany	8	2.2
Cambodia	7	2.0
Korea	2	.6
Japan	3	.8
Peru	1	.3
Laos	7	2.0
Thailand	3	.8
Russia	2	.6
Nigeria	4	1.1
Indonesia	2	.6
Zimbabwe	2	.6
Vietnam	2	.6
Canada	2	.6
France	2	.6
Jordan	2	.6
China	3	.8
Malaysia	2	.6
United Arab Emirates	1	.3
Taiwan	2	.6
Religion		
Christian	113	31.7
Roman Catholic	143	40.1
Sikh	24	6.7
Buddhism	8	2.2
Atheist	5	1.4
Shinto	2	.6
Jehovah's Witness	6	1.7
Shamanism	12	3.4
Declined to answer	33	9.2
Iglesia ni Cristo	2	.6
South Vietnam	2	.6
Islam	2	.6
Hinduism	5	1.4

3.2. Nurses' cultural competence

The cultural competence of nurses is summarized in [Table 2](#), which is divided into two domains: awareness and knowledge. These domains are represented by 24 descriptors (or statements) with corresponding mean scores, where higher mean scores indicate greater cultural competence.

In the awareness domain, cultural competence is reflected by being mindful of cultural differences, identities, assumptions, and social contexts. Nurses scored highest in their ability to view human differences as positive (mean = 3.52, SD = \pm .752), willingness to share their own culture to learn more about others, and having a clear understanding of their own ethnic and cultural identity (mean = 3.46, SD = \pm .784). Nurses also recognize that discomfort from cross-cultural differences is part of the growth process (mean = 3.44, SD = \pm .742).

However, lower mean scores were observed in areas such as recognizing racial privilege when White nurses work with BIPOC communities (mean = 2.59, SD = \pm 1.102) and intentionally building diverse connections to learn about racial differences (mean = 3.05, SD = \pm .910). Additionally, despite awareness of discomfort during encounters with differences in race, religion, sexual orientation, language, and ethnicity, the mean score for this was 3.09 (SD = \pm .942).

In the knowledge domain, nurses scored highest in their understanding that culture should not dictate appropriate or inappropriate behavior (mean = 3.66, SD = \pm .516). They also recognized the importance of intersecting multiple identities, such as race, gender, sexual orientation, religion, and ethnicity (mean = 3.55, SD = \pm .531), and viewed these differences as valuable aspects of an individual (mean = 3.53, SD = \pm .583). Nurses also believed that discriminatory actions could dehumanize individuals and encourage violence (mean = 3.54, SD = \pm .578). However, the lowest mean score in this domain was related to nurses' knowledge of historical events and current practices that demonstrate racism (mean = 3.12, SD = \pm .664).

Overall, nurses demonstrated adequate cultural competence with an average score of 80.60 points (SD = \pm 9.908) and a mean score of 3.35 (SD = \pm .412). Both awareness (mean = 3.27, SD = \pm .520) and knowledge (mean = 3.44, SD = \pm .421) domains showed similar levels of competence, with scores well above the median cut-off values of 50 points (out of 100) or 2.5 (out of a maximum of 5).

3.3. Nurses' work engagement

The work engagement of nurses is outlined in [Table 3](#), divided into three domains: vigor, absorption, and dedication, with respective statements. Higher mean scores indicate greater work engagement. Nurses generally report feeling strong and full of energy in their work, with a mean score of 4.17 (SD = \pm 1.116) for feeling vigorous and a mean of 3.94 (SD = \pm 1.341) for feeling energetic.

They are also deeply immersed in their work (mean = 4.44, SD = \pm 1.188) and feel happy when working intensely (mean = 4.06, SD = \pm 1.325). Among the highest-scoring items, nurses express pride in their work (mean = 5.24, SD = \pm .972), find their work inspiring (mean = 4.69, SD = \pm 1.160), and feel enthusiastic about their job (mean = 4.54, SD = \pm 1.167). The overall mean score for work engagement is 4.30 (SD = \pm .979), which is above the median cut-off value of 3.0, indicating a high level of work engagement among nurses.

3.4. Nurses' teamwork

The ability to work as a team is built on trust, team orientation, effective leadership, and a shared commitment to a common goal, as outlined in [Table 4](#). Nurses' teamwork is described by five domains: trust, team orientation, backup, shared mental model, and team leadership. Higher mean scores indicate stronger teamwork processes.

As shown in [Table 4](#), the domain of trust (mean = 3.88, SD = \pm .732) is best reflected when nurses understand their responsibilities throughout the shift (mean = 4.16, SD = \pm .746) and are monitored by their charge nurse or team leader for progress (mean = 4.13, SD = \pm .843). In the domain of team orientation (mean = 3.95, SD = \pm .656), nurses believe they must work together to perform high-quality tasks (mean = 4.24, SD = \pm .780) with respect (mean = 4.30, SD = \pm .743) and effectively communicate important information during shift changes (mean = 4.15, SD = \pm .789).

Backup (mean = 3.94, SD = \pm .725) is represented by the support nurses give each other, such as charge nurses assisting team members (mean = 4.15, SD = \pm .851) and stepping in when workloads become overwhelming (mean = 4.02, SD = \pm .858). The shared mental model (mean = 4.10, SD = \pm .655) reflects an understanding of roles and responsibilities, working together toward a common goal (mean = 4.23, SD = \pm .767), with clear directions from charge nurses (mean = 4.19, SD = \pm .836). Finally, team leadership (mean = 4.01, SD = \pm .741) is characterized by trust and the fair distribution of tasks (mean = 4.03, SD = \pm .902).

With an overall mean score of 3.97, which is above the median cut-off value of 2.5, nursing teamwork is generally strong. The domains of shared mental model and team leadership were the strongest indicators of effective teamwork.

3.5. Relationship between the nurses' cultural competence and work engagement

The relationship between nurses' cultural competence and work engagement is shown in [Table 5](#). With a statistical significance level of .01, the hypothesis stating, "There is no significant relationship between nurses' cultural competence and work engagement," is rejected based on the obtained p-value of .000. A Pearson correlation coefficient of .286 indicates a weak positive

correlation between these variables. This suggests that higher cultural competence tends to enhance work engagement among nurses. Similarly, nurses with better work engagement are more likely to

become culturally competent in handling work conflicts, differences, and challenges related to cultural backgrounds.

Table 2: Nurses' cultural competence (N=357)

	Mean	SD (±)
Awareness		
I view human differences as positive and a cause for celebration	3.52	.752
I have a clear sense of my own ethnic, cultural, and racial identity and how that is viewed by others with whom I differ	3.46	.784
I am aware that to learn more about others, I need to understand and be prepared to share my own culture	3.49	.752
I am aware of my discomfort when I encounter differences in race, religion, sexual orientation, language, and/or ethnicity	3.09	.942
I am aware of the assumptions that I hold about people of cultures different from my own	3.25	.792
I am aware of the stereotypes I hold as they arise and have developed personal strategies for reducing the harm they cause	3.28	.832
I am aware of how my cultural perspective influences my judgment about what I deem to be 'appropriate,' 'normal,' or 'superior' behaviors, values, and communication styles	3.34	.757
I accept that in cross-cultural situations, there can be uncertainty and that I might feel uncomfortable as a result. I accept that discomfort is part of my growth process	3.44	.742
I intentionally make opportunities to put myself in places where I can learn about differences and establish diverse connections	3.05	.910
If I am a white person working with members of BIPOC communities, I recognize that I have inherently benefited from racial privilege and may not be seen as safe, 'unbiased,' or as an ally	2.59	1.102
I'm aware of the impact of social context on the lives of culturally diverse populations and how power, privilege, and social oppression influence their lives	3.24	.662
I make mistakes and choose to learn from them	3.52	.611
Mean for awareness	3.27	.520
Points for awareness	39.27	6.240
Knowledge		
I recognize that my knowledge of certain cultural groups is limited. I make an ongoing commitment to learn more through the lens of cultural groups that differ from my own	3.35	.603
I listen fully to answers and make the time to advance my knowledge from a variety of existing culturally diverse resources before asking additional questions. I do this so that I don't unduly burden members of marginalized communities with addressing gaps in my cultural knowledge	3.31	.642
I know that differences in race, culture, ethnicity, etc., are important and valued parts of an individual's identity—I do not hide behind the claim of "color blindness"	3.53	.583
I am knowledgeable about historical incidents and current-day practices that demonstrate racism and exclusion towards those I label as 'others'	3.12	.664
I recognize that cultures change over time and can vary from person to person, as does attachment to culture	3.45	.552
I recognize that achieving cultural competence and cultural humility involves a commitment to learning over a lifetime. I consistently demonstrate my commitment to this process	3.43	.612
I recognize that stereotypical attitudes and discriminatory actions can dehumanize and even encourage violence against individuals because of their membership in groups that are different from mine	3.54	.578
I know my family's story of immigration and assimilation	3.45	.696
I continue to develop my capacity for assessing areas where there are gaps in my knowledge	3.43	.626
I recognize that people have intersecting multiple identities drawn from race, gender identity, sexual orientation, religion, ethnicity, etc., and the potential influence of each of these identities varies from person to person	3.55	.531
I acknowledge both inter-cultural and intracultural differences	3.52	.598
I'm aware that everyone has a "culture," and my own "culture" is not to be regarded as the singular or best point of reference to assess which behaviors are appropriate or inappropriate	3.66	.516
Mean for knowledge	3.44	.421
Points for knowledge	41.33	5.05
Points for cultural competence (overall)	80.60	9.908
Mean for cultural competence (overall)	3.35	.412

Furthermore, the specific domains of cultural competence and work engagement also demonstrate a weak positive correlation, with p-values of .000 and correlation coefficients equal to or greater than .200. This implies that greater awareness and sufficient knowledge of cultural differences and identities are associated with improved vigor, absorption, and dedication in work. Likewise, nurses who are more engaged at work tend to become more culturally aware and knowledgeable about the cultural backgrounds, identities, and differences of their co-workers and patients.

3.6. Relationship between the nurses' cultural competence and teamwork

Table 6 addresses the question, "Is there a significant relationship between nurses' cultural competence and teamwork?" With an obtained p-value of .000, compared to the statistical significance level of .01, the hypothesis is rejected, indicating a

statistically significant relationship. The Pearson correlation coefficient of .432 suggests a moderate positive correlation, meaning that as cultural competence increases, teamwork improves, and vice versa.

Table 3: Nurses' work engagement (N=357)

	Mean	SD (±)
Vigor		
At work, I feel like bursting with energy	3.94	1.341
At my job, I feel strong and vigorous	4.17	1.116
When I get up in the morning, I feel like going to work	3.80	1.430
Mean for vigor	3.97	1.157
Absorption		
I feel happy when I am working intensely	4.06	1.325
I am immersed in my work	4.44	1.188
I get carried away when I am working	3.89	1.412
Mean for absorption	4.13	1.108
Dedication		
I am enthusiastic about my job	4.54	1.167
My job inspires me	4.69	1.160
I am proud of the work that I do	5.24	.972
Mean for dedication	4.82	1.002
Mean for work engagement (overall)	4.30	.979

Table 4: Nurses' teamwork (N=357)

	Mean	SD (±)
Trust		
All team members understand what their responsibilities are throughout the shift	4.16	.746
The nurses who serve as charge nurses or team leaders monitor the progress of the staff members throughout the shift	4.13	.843
Team members frequently know when another team member needs assistance before that person asks for it	3.84	.866
Team members communicate clearly what their expectations are of others	3.70	.929
Mistakes and annoying behavior of teammates are not ignored but are discussed with the team member	3.51	1.095
When changes in the workload occur during the shift (admissions, discharges, patients' problems, etc.), a plan is made to deal with these changes	3.89	.993
Team members know that other members of their team follow through on their commitment	3.97	.856
Mean for trust	3.88	.732
Team orientation		
The nurses who serve as charge nurses or team leaders balance the workload within the team	3.96	.923
My team believes that to do a quality job, all the members need to work together	4.24	.780
The shift change reports contain the information needed to care for the patients	4.15	.789
Team members usually return from breaks on time	4.09	.845
Team members respect one another	4.30	.743
When a team member points out to another team member an area for improvement, the response is never defensive	3.79	.937
Team members are aware of the strengths and weaknesses of other team members they work with most often	3.97	.849
If the staff on one shift is unable to complete their work, the staff on the on-coming shift do not complain about it	3.47	.999
Staff members with strong personalities do not dominate the decisions of the team	3.62	1.030
Mean for team orientation	3.95	.656
Backup		
Most team members tend to deal with conflict rather than avoid it	3.64	.975
Nursing assistants and nurses work well together as a team	3.97	.977
The nurses who serve as charge nurses or team leaders are available and willing to assist team members throughout the shift	4.15	.851
Team members notice when a member is falling behind in their work	3.90	.846
When the workload becomes extremely heavy, team members pitch in and work together to get the work done	4.02	.858
Feedback from team members is often helpful rather than judgmental	3.99	.888
Mean for backup	3.94	.725
Shared mental model		
My team readily engages in changes to make improvements and new methods of practice	3.92	.833
Team members share information with each other	4.09	.763
Team members clarify with one another what was said to be sure that what was heard is the same as the intended message	4.04	.778
Team members work together to achieve the total work of the team	4.23	.767
The nurses who serve as charge nurses or team leaders give clear and relevant directions as to what needs to be done and how to do it	4.19	.836
Within our team, members can keep an eye out for each other without falling behind in their own individual work	4.03	.857
Team members understand the roles and responsibilities of each other	4.25	.809
Mean for shared mental model	4.10	.655
Team leadership		
Team members willingly respond to patients other than their own when other team members are busy or overloaded	3.99	.907
Team members value, seek, and give each other constructive feedback	3.91	.877
When someone does not report to work, or someone is pulled to another unit, we reallocate responsibilities fairly among the remaining team members	4.03	.902
Team members trust each other	4.13	.803
Mean for team leadership	4.01	.741
Mean for nursing teamwork (overall)	3.97	.636

Table 5: Relationship between the nurses' cultural competence and work engagement (and domains)

Cultural competence	Work engagement (p= .000; coefficient= .286)		
	Vigor	Absorption	Dedication
Awareness	.000 (.237)	.000 (.247)	.000 (.200)
Knowledge	.000 (.214)	.000 (.211)	.000 (.252)

P-value is significant when < .01

Moreover, when nurses are aware of and knowledgeable about cultural backgrounds, differences, and identities, they tend to show higher levels of trust, team cohesion, shared goals, and team

leadership. This is supported by the p-value of .000 for the correlations between specific domains of both cultural competence and teamwork.

Table 6: Relationship between the nurses' cultural competence and teamwork (and domains)

Cultural competence	Teamwork (p= .000; coefficient= .432)				
	Trust	Team orientation	Backup	Shared mental model	Team leadership
Awareness	.000 (.314)	.000 (.340)	.000 (.313)	.000 (.406)	.000 (.384)
Knowledge	.000 (.319)	.000 (.369)	.000 (.257)	.000 (.397)	.000 (.390)

P-value is significant when < .01

3.7. Implications for nursing practice

To the researcher's knowledge, most studies have focused on culturally competent care as a necessary aspect of meeting the diverse needs of patients and their families. These studies primarily explore how understanding patients' cultural backgrounds and assessing nurses' cultural competence contributes to

providing individualized, safe, and quality care. The current study emphasizes the significance of cultural competence among nurses in relation to their work engagement and their ability to function as part of an effective team. When nurses acknowledge cultural identities, differences, and adaptability among their colleagues, they are more likely to work harmoniously toward shared goals.

The recruitment of culturally and linguistically diverse nurses is becoming more important as the healthcare workforce faces the dual challenge of a rapidly aging population and the retirement of many healthcare workers. It is estimated that one in eight nurses practices in a country other than where they were born and trained (Paatela et al., 2024). Strengthening cultural competence is both a professional and organizational responsibility to help incoming nurses adapt to new work environments. Orientation programs for newly hired nurses can facilitate their transition, enabling them to work effectively with colleagues from different cultural backgrounds and care for patients with individualized needs. Cultural competence is a gradual, ongoing process that enhances the ability to provide effective, safe, and quality care while considering cultural aspects in care delivery (Sharifi et al., 2019). This study's findings showed that nurses generally have adequate cultural competence, demonstrated by their belief that fostering a culture of acceptance and inclusivity leads to harmonious working relationships despite differences.

As workforce diversity increases, understanding the perspectives of culturally diverse healthcare workers is an essential step toward creating more effective team environments (Kumra et al., 2020). This study highlights the potential for nurses to overcome cultural challenges and collaborate effectively to deliver quality care.

Work engagement is not simply the result of enjoying one's job; it is influenced by several factors, including the social context and effective leadership. Nurses become more engaged when they realize the importance of working efficiently as part of a healthy, collaborative team. In such environments, they tend to be more absorbed, energized, and eager to produce positive outcomes. Since culture shapes individuals' beliefs, behaviors, and values, cultural differences can pose a threat to teamwork (Soleimani and Yarahmadi, 2023). However, as cultural competence is developed through a gradual learning process, it fosters togetherness at work, emphasizing safety, trust, and meaningful collaboration.

This study offers important implications for the nursing profession. The multicultural nature of the U.S. workforce, while presenting challenges, is a key factor in achieving common goals through cohesive teamwork. The development of interpersonal cultural competence does not happen overnight—it evolves over time with consistent education on cultural diversity, inclusivity, and adaptability, particularly for international nurses who are integrating into diverse healthcare teams.

4. Discussion

4.1. Nurses' cultural competence, work engagement and teamwork

The concept of cultural competence arises from the growing migration of international nurses to

countries where differences in beliefs, traditions, and behaviors are evident in nurse-patient interactions and care delivery. The Hispanic and Asian populations in the United States are projected to more than double between 2012 and 2060, highlighting the need for interpersonal cultural competence (Kumra et al., 2020). Addressing the needs of a diverse population in healthcare requires efforts to enhance the cultural competence of the workforce (Nair and Adetayo, 2019). This professional responsibility ensures that patients from various cultural backgrounds receive the highest quality of care (Červený et al., 2022). In this study, cultural competence is examined in the context of its impact on work-related issues such as engagement and teamwork.

The study demonstrates that nurses generally exhibit a satisfactory level of cultural competence, as reflected in their adequate knowledge and awareness of cultural differences, identities, and challenges. Hospitals must prioritize cultural education for nurses to help them deliver culturally sensitive care and demonstrate interpersonal cultural sensitivity when working with colleagues from different backgrounds. Nurses view cultural differences as an opportunity to learn from others, share their own culture, and form diverse connections. When nurses collaborate effectively with individuals from various cultural backgrounds, it enhances healthcare experiences and improves outcomes (Nair and Adetayo, 2019). Moreover, cultural differences are considered valuable aspects of an individual's identity, and racism or exclusion is not tolerated in the workplace. Education for healthcare professionals is a key solution to addressing racial and ethnic discrimination stemming from organizational inequality (Červený et al., 2022). As cultural diversity in healthcare grows, evaluating cultural competence within the public health system is increasingly important (Osmancevic et al., 2023). This demand extends to integrating cultural considerations into nursing education, hospital systems, and healthcare facilities (Scott et al., 2020). Both organizationally and individually, providing culturally competent care is a professional imperative (Červený et al., 2020).

Work engagement, on the other hand, is essential for productivity, patient safety, and job satisfaction (Pericak et al., 2020). The findings of this study indicate that despite workplace challenges, nurses demonstrate adequate work engagement. Influenced by both organizational factors and individual motivation, work engagement reflects nurses' ability to fulfill their responsibilities with energy and without burnout. Importantly, the study reveals that nurses are proud of their work, as they feel they can make a meaningful impact on the patients they care for.

Regarding teamwork, nurses generally perceive cohesiveness when they understand their responsibilities throughout their shifts. Trust develops as charge nurses or leaders monitor progress regularly. When team members are aligned

toward delivering high-quality work, they collaborate effectively to achieve this goal. Teamwork is further strengthened when colleagues are willing to help each other, especially during times of heavy workload. However, suboptimal teamwork processes continue to be a public health issue, as they contribute to reduced productivity, high staff turnover, and unsafe patient care (Rosen et al., 2018). Nursing teamwork plays a crucial role in multidisciplinary collaboration, which is vital for providing high-quality nursing care (Baek et al., 2023). The shared mental model, or the knowledge structure of individual team members, facilitates effective collaboration (Azimirad et al., 2022). In this study, nurses generally believe that teamwork is enhanced when charge nurses provide clear guidance on what needs to be done and how to address challenges. Multidisciplinary collaboration among healthcare professionals is increasingly emphasized, with teamwork being a key component (Kumra et al., 2020). When team members understand each other's roles and responsibilities, teamwork improves, as they are better guided in their performance in the workplace.

4.2. Relationship of the nurses' cultural competence with work engagement and teamwork

The relationship between cultural competence, work engagement, and teamwork highlights that cultural differences present opportunities to establish diverse connections, meaningful relationships, and effective partnerships at work. Culturally diverse healthcare teams often face challenges due to differences in behavior and expectations (Schmidt et al., 2023). This study demonstrates that nurses acknowledge these differences but view them positively, as they contribute to effective interpersonal relationships with coworkers. Cultural competence is a dynamic process that improves over time with experience, leading to more effective communication with individuals from different cultural backgrounds (Soleimani and Yarahmadi, 2023). It is the responsibility of healthcare systems to promote cultural inclusivity, creating an atmosphere of respect for patients, healthcare providers, and administrative staff (Kumra et al., 2020). To provide culturally congruent care, nurses must develop cultural competence, and healthcare organizations must support this development (Sharifi et al., 2019). The study found a significant correlation between cultural competence and teamwork, showing that acknowledging cultural differences does not hinder the shared purpose of working together as a team. In fact, a better perception of organizational cultural competence is associated with a stronger teamwork climate (Kumra et al., 2020).

A collaborative teamwork culture fosters an accepting environment for staff members from diverse backgrounds (Paatela et al., 2024). Providing healthcare professionals with opportunities to learn

about cultural diversity and inclusion ensures that care is delivered within the proper cultural context, promoting cultural sensitivity, adaptability, and motivation (Červený et al., 2022). As outlined in the study, cultural awareness and knowledge allow individuals to view differences as opportunities for celebration, sharing one's culture, and preventing discriminatory actions caused by cultural disparity. The ability of healthcare professionals to establish effective interpersonal and working relationships that transcend cultural differences is a key indicator of interpersonal cultural competence (Kumra et al., 2020).

5. Conclusions and recommendations

The study examines nurses' cultural competence in its interpersonal dimension, focusing on how they collaborate with colleagues from various cultural backgrounds. When confronted with differing beliefs, nurses view these differences as opportunities for cultural sharing, acceptance, and inclusivity, fostering effective work relationships and teamwork.

The study concludes that despite the challenges posed by cultural disparities, there is a positive correlation between nurses' cultural awareness, knowledge, and their work engagement and teamwork. It is evident that better interpersonal cultural competence enhances both work engagement and teamwork among nurses. However, further exploration is needed to fully understand cultural competence in other aspects. Specifically, the study recommends investigating barriers to cultural inclusivity, the impact of racial discrimination, and the orientation needs of newly hired international nurses.

Moreover, additional research should explore how cultural competence interacts with other individual or organizational factors that may influence job engagement and collaboration. Future studies could include a broader range of healthcare facilities, particularly in different socioeconomic or geographic settings, to improve the generalizability of the results. A longitudinal study design could also be employed to provide insights into the predictive validity of cultural competence and how it evolves over time in relation to work engagement and teamwork.

Acknowledgment

All authors would like to thank all nurses who voluntarily and enthusiastically participated in this academic work.

Compliance with ethical standards

Ethical considerations

Ethics clearance and approval were obtained from the Ethics Review Committee (ERC) of the

Angeles University Foundation (AUF) and the selected hospitals prior to conducting the study. Informed consent was also secured from the respondents to ensure the protection of their privacy and the confidentiality of the data collected. The informed consent form outlined the purpose of the study, participant information, the nature of their involvement, potential benefits, risks or hazards, clauses related to illness or injury, voluntary participation, confidentiality measures, and the contact information of the researcher and the AUF-ERC panel. The initial step involved obtaining a letter of permission and support from the Dean of the AUF Graduate School and the instructor to proceed with the study.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Azimirad M, Magnusson C, Wiseman A, Selander T, Parviainen I, and Turunen H (2022). Identifying teamwork-related needs of the medical emergency team: Nurses' perspectives. *Nursing in Critical Care*, 27(6): 804–814. <https://doi.org/10.1111/nicc.12676> **PMid:34216412**
- Baek H, Han K, Cho H, and Ju J (2023). Nursing teamwork is essential in promoting patient-centered care: A cross-sectional study. *BMC Nursing*, 22: 433. <https://doi.org/10.1186/s12912-023-01592-3> **PMid:37978376** **PMCID:PMC10655287**
- Bargagliotti LA (2012). Work engagement in nursing: A concept analysis. *Journal of Advanced Nursing*, 68(6): 1414–1428. <https://doi.org/10.1111/j.1365-2648.2011.05859.x> **PMid:22044047**
- Barton G, Bruce A, and Schreiber R (2018). Teaching nurses teamwork: Integrative review of competency-based team training in nursing education. *Nurse Education in Practice*, 32: 129–137. <https://doi.org/10.1016/j.nepr.2017.11.019> **PMid:29287747**
- Červený M, Dimunová L, Della Pelle C, Papp K, Siaki L LA, Kilfková M, and Nagórska M (2020). Self-reported cultural competence of nurses providing nursing care in Slovakia. *Journal of Nursing Scholarship*, 52(6): 705–712. <https://doi.org/10.1111/jnu.12601> **PMid:32960488**
- Červený M, Kratochvilova I, Hellerová V, and Tothova V (2022). Methods of increasing cultural competence in nurses working in clinical practice: A scoping review of literature 2011–2021. *Frontiers in Psychology*, 13: 936181. <https://doi.org/10.3389/fpsyg.2022.936181> **PMid:36092120** **PMCID:PMC9449514**
- Costello M, Rusell K, and Coventry T (2021). Examining the average scores of nursing teamwork subscales in an acute private medical ward. *BMC Nursing*, 20: 84. <https://doi.org/10.1186/s12912-021-00609-z> **PMid:34059037** **PMCID:PMC8166033**
- Engelbrecht M, Rau A, Nel P, and Wilke M (2020). Emotional well-being and work engagement of nurses who moonlight (dual employment) in private hospitals. *International Journal of Nursing Practice*, 26(1): e12783. <https://doi.org/10.1111/ijn.12783> **PMid:31512344** **PMCID:PMC9285812**
- García-Sierra R, Fernández-Castro J, and Martínez-Zaragoza F (2016). Work engagement in nursing: An integrative review of the literature. *Journal of Nursing Management*, 24(2): E101–E111. <https://doi.org/10.1111/jonm.12312>
- Goh PQL, Ser TF, Cooper S, Cheng LJ, and Liaw SY (2020). Nursing teamwork in general ward settings: A mixed-methods exploratory study among enrolled and registered nurses. *Journal of Clinical Nursing*, 29(19-20): 3802–3811. <https://doi.org/10.1111/jocn.15410>
- Halm B (2011). Employee engagement: A prescription for organizational transformation. *Advances in Health Care Management*, 10: 77–96. [https://doi.org/10.1108/S1474-8231\(2011\)0000010011](https://doi.org/10.1108/S1474-8231(2011)0000010011)
- Hsu P, Bryant MC, Hayes-Bautista TM, Partlow KR, and Hayes-Bautista DE (2018). California and the changing American narrative on diversity, race, and health. *Health Affairs*, 37(9): 1394–1399. <https://doi.org/10.1377/hlthaff.2018.0427> **PMid:30179544**
- Kaiser JA, and Westers JB (2018). Nursing teamwork in a health system: A multisite study. *Journal of Nursing Management*, 26(5): 555–562. <https://doi.org/10.1111/jonm.12582> **PMid:29336502**
- Kim H and Seo K (2021). Impact of job engagement on the quality of nursing services: The effect of person-centered nursing in South Korean nurses. *Healthcare*, 9(7): 826. <https://doi.org/10.3390/healthcare9070826> **PMid:34209929** **PMCID:PMC8305326**
- Kumra T, Hsu YJ, Cheng TL, Marsteller JA, McGuire M, and Cooper LA (2020). The association between organizational cultural competence and teamwork climate in a network of primary care practices. *Health Care Management Review*, 45(2): 106–116. <https://doi.org/10.1097/HMR.0000000000000205> **PMid:30045097** **PMCID:PMC6345619**
- Li C, Son N, Abdulkereim BA, Jordan CA, and Son CGE (2017). Overcoming communication barriers to healthcare for culturally and linguistically diverse patients. *North American Journal of Medicine and Science*, 10(3): 103–109.
- Marshall JK, Cooper LA, Green AR, Bertram A, Wright L, Matusko N, McCullough W, and Sisson SD (2017). Residents' attitude, knowledge, and perceived preparedness toward caring for patients from diverse sociocultural backgrounds. *Health Equity*, 1(1): 43–49. <https://doi.org/10.1089/heq.2016.0010> **PMid:28905046** **PMCID:PMC5586003**
- Nair L and Adetayo OA (2019). Cultural competence and ethnic diversity in healthcare. *Plastic and reconstructive surgery*. *Global Open*, 7(5): e2219. <https://doi.org/10.1097/GOX.0000000000000219> **PMid:31333951** **PMCID:PMC6571328**
- Osmancevic S, Großschädl F, and Lohrmann C (2023). Cultural competence among nursing students and nurses working in acute care settings: A cross-sectional study. *BMC Health Services Research*, 23: 105. <https://doi.org/10.1186/s12913-023-09103-5> **PMid:36726095** **PMCID:PMC9890795**
- Paatela S, Pohjamies N, Kanste O, Haapa T, Oikarainen A, Kääriäinen M, and Mikkonen K (2024). Registered nurses' cultural orientation competence for culturally and linguistically diverse nurses in the hospital setting: A cross-sectional study. *Journal of Advanced Nursing*, 80(2): 707–720. <https://doi.org/10.1111/jan.15829> **PMid:37583124**
- Pericak A, Hogg CW, Skalsky K, and Bourdeanu L (2020). What influences work engagement among registered nurses: Implications for evidence-based action. *Worldviews on Evidence-Based Nursing*, 17(5): 356–365. <https://doi.org/10.1111/wvn.12469> **PMid:33090622**
- Rosen MA, DiazGranados D, Dietz AS, Benishek LE, Thompson D, Pronovost PJ, and Weaver SJ (2018). Teamwork in healthcare: Key discoveries enabling safer, high-quality care. *American*

- Psychologist, 73(4): 433-450.
<https://doi.org/10.1037/amp0000298>
PMid:29792459 PMCID:PMC6361117
- Rosengarten L (2024). Teamwork in nursing: Essential elements for practice. *Nursing Management*, 31(2): e1850.
<https://doi.org/10.7748/nm.2019.e1850> **PMid:31468828**
- Salas E, Sims DE, and Burke CS (2005). Is there a “big five” in teamwork? *Small Group Research*, 36(5): 555-599.
<https://doi.org/10.1177/1046496405277134>
- Sandhya Negi SN, Harleen Kaur HK, Singh GM, and Sanchita Pugazhendi SP (2017). Quality of nurse patient therapeutic communication and overall patient satisfaction during their hospitalization stay. *International Journal of Medical Science and Public Health*, 6(4): 675-679.
<https://doi.org/10.5455/ijmsph.2017.0211522112016>
- Schaufeli WB, Bakker AB, and Van Rhenen W (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 30(7): 893-917. <https://doi.org/10.1002/job.595>
- Schmidt M, Steigenberger N, Berndtson M, and Uman T (2023). Cultural diversity in health care teams: A systematic integrative review and research agenda. *Health Care Management Review*, 48(4): 311-322.
<https://doi.org/10.1097/HMR.0000000000000379>
PMid:37615941
- Scott PN, Davis A, Gray LE, Jeffs DA, and Lefler LL (2020). Imperatives for integrating culture of health concepts into nursing education. *Journal of Nursing Education*, 59(11): 605-609.
<https://doi.org/10.3928/01484834-20201020-02>
PMid:33119771
- Sharifi N, Adib-Hajbaghery M, and Najafi M (2019). Cultural competence in nursing: A concept analysis. *International Journal of Nursing Studies*, 99: 103386.
<https://doi.org/10.1016/j.ijnurstu.2019.103386>
PMid:31404821
- Shen Z (2015). Cultural competence models and cultural competence assessment instruments in nursing: A literature review. *Journal of Transcultural Nursing*, 26(3): 308-321.
<https://doi.org/10.1177/1043659614524790>
PMid:24817206
- Smiley RA, Lauer P, Bienemy C, Berg JG, Shireman E, Reneau KA, and Alexander M (2018). The 2017 national nursing workforce survey. *Journal of Nursing Regulation*, 9(3): S1-S88.
[https://doi.org/10.1016/S2155-8256\(18\)30131-5](https://doi.org/10.1016/S2155-8256(18)30131-5)
- Soleimani M and Yarahmadi S (2023). Cultural competence in critical care nurses and its relationships with empathy, job conflict, and work engagement: A cross-sectional descriptive study. *BMC Nursing*, 22: 113.
<https://doi.org/10.1186/s12912-023-01285-x>
PMid:37046274 PMCID:PMC10091659
- Stubbe DE (2020). Practicing cultural competence and cultural humility in the care of diverse patients. *Focus*, 18(1): 49-51.
<https://doi.org/10.1176/appi.focus.20190041>
PMid:32047398 PMCID:PMC7011228
- Torabinia M, Mahmoudi S, Dolatshahi M, and Abyaz MR (2017). Measuring engagement in nurses: The psychometric properties of the Persian version of Utrecht work engagement scale. *Medical Journal of the Islamic Republic of Iran*, 31(1): 83-89.
<https://doi.org/10.18869/mjiri.31.15>
PMid:28955665 PMCID:PMC5609325
- Watt K, Abbott P, and Reath J (2016). Developing cultural competence in general practitioners: An integrative review of the literature. *BMC Family Practice*, 17: 158.
<https://doi.org/10.1186/s12875-016-0560-6>
PMid:27846805 PMCID:PMC5111200
- Zhao Y, Su J, Ma D, Li H, Li Y, Zhang X, Li Z, and Sun J (2021). The role of teamwork in the implicit rationing of nursing care: A systematic mixed methods review. *Journal of Nursing Management*, 29(5): 890-904.
<https://doi.org/10.1111/jonm.13231> **PMid:33306210**