Analyzing Emotional Intelligence of Female Nurses in Virudhunagar District: Applications of EFA and CFA

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Abstract: *Emotional intelligence has become a crucial competency in the medical field, particularly among nurses who are routinely exposed to emotionally demanding situations. The current investigation investigates the degree of emotional awareness within female nurses in Virudhunagar district and examines its connection to selected demographic and occupational variables. Emotional intelligence, encompassing self-awareness, self-regulation, motivation, empathy, and social skills, has a major impact in enhancing interpersonal relationships, stress reduction and the results of patient treatment.*

The research employs a descriptive approach research design, utilizing sources of data, both primary and secondary. The first information was gathered from female nurses working in selected healthcare institutions through a structured questionnaire, employing a stratified random sampling technique. Statistical tools such as percentage analysis, correlation, and factor analysis were accustomed to interpret the information. The results show that emotional intelligence considerably influences nurses' job performance, stress-handling capacity, and overall professional effectiveness. Variations in Levels of emotional intelligence were also observed. throughout age, experience, and educational background.

The study concludes that strengthening EI competencies among female nurses can lead to improved workplace relationships, enhanced psychological well-being, and better quality of patient care. It recommends that healthcare should implement targeted training programs and supportive policies to foster emotional intelligence.

Keywords*: Emotional Intelligence, Nurses, Self-Awareness, Self-Regulations.*

Introduction

Nursing plays a crucial part in the healthcare system, offering critical care and support to patients across diverse settings. Nurses are integral to patient care, providing medical assistance, emotional support, education, and advocacy. The profession demands high dedication, skill, and empathy, often requiring nurses to work long hours, manage heavy workloads, and navigate the emotional challenges associated with patient care.

Historically, the nursing field has been distinguished by demanding work conditions. Nurses often face extended shifts, including night shifts and irregular hours, which can disrupt their personal lives and contribute to stress and fatigue. The physical and emotional demands of the job are significant, with nurses frequently dealing with life-and-death situations, providing comfort to clients and their loved ones during critical times, and coping with the loss of patients.

Review of Literature

Efthymia Chatzidimitriou and et.al. (2025), in their study, "Emotional Intelligence in the Professional Development of Nurses: From Training to the Improvement of Healthcare Quality" The study looked at the impact of emotional intelligence on nurses' ethical behavior, crisis management, and degree of care in Greek public hospitals. These factors' relationships were assessed using a cross-sectional survey and CB-SEM analysis. The results showed that emotional intelligence greatly enhanced moral behavior and crisis management abilities. However, through improved ethics and crisis management skills, it had an indirect impact on the quality of care.

Fatimah Turjuman and Bayan Alilyyani. (2023), in their study, "Emotional Intelligence among Nurses and its Relationship with Their Performance and Work Engagement: A Cross-Sectional Study" investigated the connection between nurses' emotional intelligence, productivity, and engagement at work. Using standardized questionnaires and SPSS analysis, data from 150 nurses was gathered using a quantitative correlational methodology. The results showed a strong positive correlation between nurses' job performance and emotional intelligence. Additionally, it was discovered that higher levels of work engagement were positively correlated with emotional intelligence.

Long Huang and et.al. (2020), in their study, "Emotional Responses and coping strategies in Nurses and nursing students during COVID-19 Outbreak: A Comparative Study" During COVID-19, the study examined nurses' emotional reactions and coping strategies and contrasted them with those of nursing students. In Anhui Province, a snowball sample online survey was carried out. Women and urban participants reported increased anxiety levels and fear, whereas rural individuals reported higher levels of grief; being close to outbreak areas enhanced feelings of anger and anxiety. The study underlined the need for hospital-based mental health support and the psychological burden on frontline nurses.

Qaiser Suleman and et al. (2020), in their study, "Correlating Job Satisfaction and Emotional Intelligence: The study titled "Evidence from a Cross-Sectional Study Among Secondary School Heads in Khyber Pakhtunkhwa, Pakistan" stated that this cross-sectional research examined the relationship between secondary school administrators' emotional intelligence and job happiness. in Khyber Pakhtunkhwa. A multistage sampling technique was used to select 402 secondary school principals from 884 in total for this research. The research was quantitative, descriptive, and correlational, with information gathered from participants through a survey research methodology. Instruments for statistical analysis, such as The Variance analysis, multiple linear regression, Pearson's correlation coefficient, mean, as well as standard deviation were employed. The findings indicated a rather favorable relationship between emotional intelligence and job satisfaction. Furthermore, all

aspects of job satisfaction and emotional intelligence showed a somewhat positive association, with the exception of emotional stability, which showed both a positive correlation and a minor impact size.

Tarapranav Bhattacharya (2020), in his study "Emotional Intelligence as A factor for improvement of Healthcare" he stated that the Healthcare delivery is undergoing a major change and is currently underway a rising tide of allegations and litigations. This seeming crisis is the result of several elements, one of which is perception among the clientele that the providers of healthcare are not empathetic to the requirements of the recipient any more. Into this setting of trust deficit is the space for imbibing emotional intelligence among the healthcare workers and the health administrators for a restoration of recipient confidence and an actual improvement of the healthcare.

Research Gap

The research gap is identified based on the reviews that the researcher has gathered. Numerous investigations have been conducted on the subject of managers' emotional intelligence, managers' stress, nurses' emotional intelligence, nurses' job satisfaction, managers' Balance between work and life and emotional competence, and entrepreneurs. The notion of occupational satisfaction as a mediator in analysis is ignored in the few studies on Balance between work and life and emotional competence among nurses. Numerous investigations are solely qualitative in nature. Research on emotional intelligence and how it affects nurses' work-life balance in Virudhunagar District is currently lacking. This work closes this research gap.

Objectives of the Study

In this investigation, the investigator has undertaken the following objectives

1. To look at the socio-economic profile of the female nurses in Virudhunagar District.
2. To investigate the components of emotional intelligence with EFA and CFA.
3. To offer suitable suggestions based on the research's conclusions.

Research Method

For a complete understanding, we used both data, both primary and secondary in this investigation. The main information came from 314 dedicated female nurses in Sivakasi and gathered through a well-structured questionnaire using a stratified random sampling method. Additionally, we meticulously obtained secondary data from trustworthy sources like journals, articles, and websites. Our rigorous approach included conducting reliability, validity, and normality tests using the designed questionnaire in a pilot study. Upon establishing the questionnaire's reliability, we meticulously tabulated and analyzed the data, employing the simple percentage method for interpretation, complemented by the use of factor analyses for testing purposes.

Statement of the Problem

Nurses play an indispensable role in the healthcare system, providing continuous care and support to patients across various settings. Despite their critical contribution, nurses often face substantial difficulties in juggling their personal and professional responsibilities demands. The high-stress characteristics of the nursing profession, characterized Extended work hours and shift work, and emotional stress can result in significant work-life imbalance. This imbalance has far-reaching implications not only for the nurses' well-being but also for the quality of patient treatment and overall results in healthcare. So, the researcher wants to research emotional intelligence of Nurses in Virudhunagar District.

Data Analysis and Interpretations

Research Methodology

This research has been explained using the research design approach, sample strategy, data gathering technique, and data analysis. The study is both analytical and descriptive in character.

Data Collection

Both primary and secondary sources of information were gathered.

Primary Data

The primary data used in this study is the major source. Original data that is gathered for the first time is referred to as primary data. Nurses provided primary data. using a well-structured questionnaire. A pilot research was conducted. with ten responders as a sample to obtain suggestions regarding the questionnaire and modified the questionnaire based on the suggestions given by the respondent.

Secondary Data

Secondary data is data that someone has collected for a specific purpose and is applicable in the current study. To complement Secondary data for the study was gathered from textbooks, articles, dissertations, journals, dissertations, publication sources, and related websites.

Sampling Design

A sampling design is a defined process for obtaining a sample from a specific population. It has to do with how the investigator would select the objects for the sample. Considering the information and the earlier research, the researcher employed the Proportionate Stratified Sampling approach in this investigation. The study's The sample size was calculated using www.samplesurvey.com. Considering the calculations, 314 are identified as the appropriate sample size. In Virudhunagar District, there are six natures of hospitals, they are Government Hospital, Medical College Hospital, Primary Health Centre Virudhunagar, Primary Health Centre Sivakasi, Village Health Nurse, and Private Hospital. The proportionate sample of 314 has been selected from the above-mentioned hospitals founded on the convenience sampling technique.

Study Area

The area of study is restricted to Virudhunagar District only because of time constraint.

Analysis of Female Emotional Intelligence Nurses

The socioeconomic the nurses' profile has been categorized by the investigator based on their marital status, age, and gender, and place of residence, educational qualifications, family structure, monthly income, number of earning members in the family, and years of experience. Furthermore, the analysis also includes specific details about the work-life balance of female nurses. You can find the detailed analysis in Table 1.

Table 1: Socio-Economic Status Wise Classification

S. No	Socio – Economic Variables	No. of Nurses	Percentage
1.	**Residence Wise Classification** - Rural	67	44.67
2.	**Age Wise Classification** - 31-40 Years	195	62.1
3.	**Experience Level wise classification** - 0- 5 years	171	54.5
4.	**Marital Status Wise Classification -** Married	162	51.6
5.	**Children Wise Classification** – 1 Child	150	46.5
6.	**Education Level** - UG Diploma	116	36.9
7.	**Job Status -** Permanent	180	57.3
8.	**Job Position** - Nursing Assistant	187	59.6
9.	**Salary Wise Classification** - Above 30, 000	103	32.8

Study Area

The area of study is restricted to Virudhunagar District only because of time constraint.

Based on past studies the researcher has concentrated on the significant components that are taken into account and classified as variables for Emotional Intelligence. To research emotional intelligence of Nurses, Emotional Intelligence is separated under four headings, specifically

- **Self-consciousness**
- **Self- Regulation**
- **Relationship Management**
- **Social Skills**

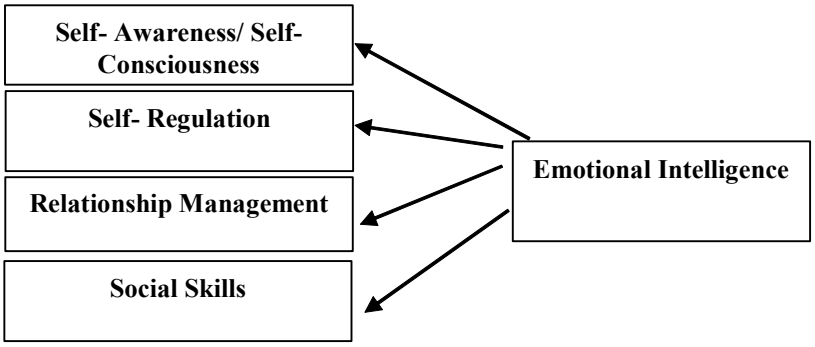


Figure 1: Model Framework of Emotional Intelligence

Cronbach's Alpha for the Self-Awareness on Emotional Intelligence

Table 2: Reliability Statistics level of Self-Awareness on Emotional Intelligence

Cronbach's Alpha	No. of Items
.732	08

Source: *Computed SPSS Data*

It is clear that, Cronbach's Alpha test for the 8 items of level of self-awareness on emotional intelligence value is 0.732. It is representing that the internal consistency of the factor is high or reliability.

KMO and Bartlett' s Correlation Suitability Tests for Self-Awareness on Emotional Intelligence

Table 3:KMO and B artlett's Correlation Suitability Tests of Self-Awareness on Emotional Intelligence

KMO and Ba rtlett's Correlation Suitability Tests		
Kaiser-Meyer-Olkin Index of Sampling Sufficiency		.730
Bartlett's Test of Sphericity	Approx. Chi-Square	730.199
	Df	28
	Sig.	.000

Source: *Computed SPSS Data*

Further the Barlett's test of Sphericity is 730.199 it also shows the significant result. Therefore, the data was normally distributed and that adequate for factor analysis.

Total variance explained of Self-Awareness on Emotional Intelligence

Table 4:Total variance explained of Self-Awareness on Emotional Intelligence

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	of Variance	Cumulativ e	Total	of V ariance	Cumulative
1	2.814	35.173	35.173	2.469	30.858	30.858
2	1.870	23.376	58.549	2.215	27.691	58.549

Source: *Computed SPSS Data*

Extraction Method: Principal Co mponent Analysis.

It shows that two factors or components extracted accounted for a total cumulative variance of Rotation Sums of Squared Loadings value is 58.549 per cent.

Communalities Variance Extractions of Self-Awareness on Emotional Intelligence

Table 5: Communalities of Self-Awareness on Emotional Intelligence

S. No	Statements	Extraction
1	I have confidence on my own abilities	.641
2	I Accept my disabilities and failure	.578
3	I am conscious of both my advantages and disadvantages.	.617
4	I generate new ideas.	.359
5	I am capable of attend emergency cases	.612
6	I am capable to compromise the patient for cooperation of treatment	.340
7	I am capable to deal with critical patients	.786
8	Non-Availability of Doctor during emergency can be managed	.751

Source: Computed SPSS Data
Extraction Method: Principal Component Analysis.

It is evident that all the communalities are above the value of 0.30; therefore, all the statements are good.

Pattern Matrix Rotation of Self-Awareness on Emotional Intelligence

Code	Statements	Components	
		1	2
	I am capable to deal with critical patients	**.886**	.019
	Non-Availability of Doctor during emergency can be managed	**.857**	.128
	I am able to attend emergency cases	**.782**	.002
	I am able to compromise the patient for cooperation of treatment	**.558**	.169
	I have confidence on my own abilities	.089	**.796**
	I am conscious of both my advantages and disadvantages.	.096	**.780**
	I Accept my disabilities and failure	.074	**.757**
	I generate new ideas.	.052	**.597**

Source: *Computed SPSS Data*
Extraction Method: *Principa l Component Analysis.*
Rotat ion Method: *Varim ax with Kais er Normali zation.*

Every element is loaded with the value more than 0.5 which shows that every one of the 8 statements have been used in analysis of Confirmatory Factor Analysis (CFA).

CFA of Self-Awareness on Emotional Intelligence

The measurement model of Self- Awareness of Emotional Intelligence are done through AMOS graphics is displayed in Figure 2.

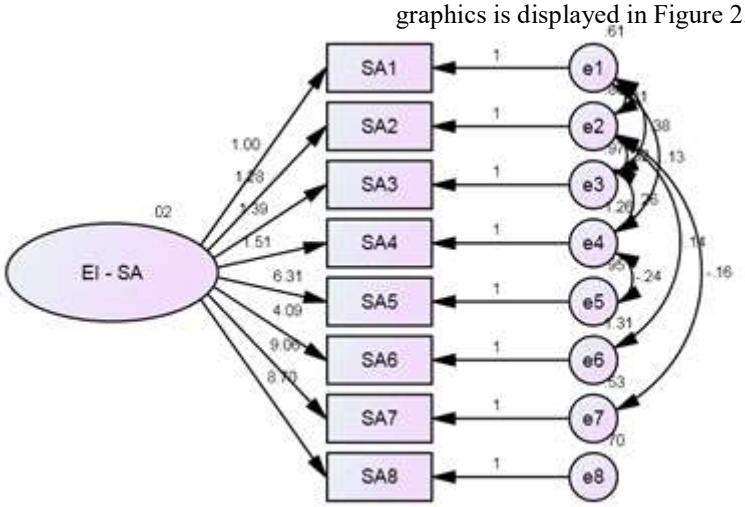


Figure 2: Measurement Self-Awareness Model for Emotional Intelligence

Table 7:Model Fit indices CFA results of Self-Awareness for Emotional Intelligence

Name of Index	Obtained Value	Level of Acceptance	Observations
RMSEA	**0.079**	<0.08	The required level is Achieved
GFI	**0.973**	>0.90 / >0.80	Moderately the required level is achieved
AGFI	**0.918**	>0.90 / >0.80	Moderately the required level is achieved
CFI	**0.967**		
TLI	**0.924**		
CMIN/DF	**2.937**	<3.0 / <5.0	The required level is Achieved

KMO and Bartlett's Correlation Suitability Tests to evaluate the Self-Regulation for Emotional Intelligence

KMO is short for Kaiser-Meyer-Olkin, a statistical measure of sampling adequacy commonly used in factor analysis and research methodology. The KMO test is essential for assessing whether a by examining the partial correlations between variables, the dataset is suitable for factor analysis. Typically, although higher values are usually preferred, a value above 0.5 is deemed appropriate for factor analysis.

Cronbach's Alpha for Self-Regulation on Emotional Intelligence

Cronbach's The alpha test is an analysis of reliability or consistency. Table 8 shows that the outcomes of reliability test for self-regulation on emotional intelligence.

Table 8: Reliability Statistics of Self-Regulation on Emotional Intelligence

Cronbach's Alpha	No. of Items
.710	08

Source: *Computed SPSS Data*

The Cronbach's Alpha value more than 0.7 is regarded as trustworthy.

KMO and Bartlett's Correlation Suitability Tests of Self-Regulation on Emotional Intelligence

Table 9: KMO and Bartlett's Correlation Suitability Tests - Self-Regulation on Emotional Intelligence

KMO and Bartlett's Correlation Suitability Tests		
Kaiser-Meyer-Olkin Index of Sampling Sufficiency		.640
Bartlett's Test of Sphericity	Approx. Chi-Square	516.066
	Df	28
	Sig.	.000

Source: *Computed SPSS Data*

Table 9 shows that the KMO value is 0.640, which has more than the acceptable value of 0.50. The chi square value of Bartlett's test of Sphericity at 28 degrees of freedom is 516.066. The acceptable threshold of 0.05 is exceeded by the P value of 0.000.

Total variance explained of Self-Regulation on Emotional Intelligence

The total variance explained is to specify the quantity of significant factors. The overall variance explained of self-regulation on emotional intelligence is seen in Table 9

Table 10: Total Variance Explained of Self-Regulation on Emotional Intelligence

Component	Extraction Su ms of Squared Loa dings			Ro tation Sums of Sq uared Loadings		
	Total	of Varia nce	Cumulati ve	Total	of Vari ance	Cumul ative
1	2.407	30.086	30.086	1.927	24.088	24.088
2	1.729	21.611	51.697	1.729	21.615	45.703
3	1.174	14.678	66.376	1.654	20.672	66.376

Source: *Comp uted SPSS Data*

Extraction Me thod: *Prin cipal Co mponent Analysis.*

Table 9 demonstrates that a total cumulative variance of Rotation Sums of Squared Loadings value of 66.376 percent was explained by two extracted elements or components.

Communalities Variance Extractions of Self-Regulation on Emotional Intelligence

The communalities value essential to more than 0.3. The communalities result for the self-regulation on emotional intelligence are presented in Table 10.

Table 10:Communalities of Self-Regulation on Emotional Intelligence

S. No	Statements	Extraction
1.	I'm pretty good at managing my own feelings.	.608
2.	I can calm myself under pressure.	.728
3.	Manage numerous demands, changing priorities, and quick adjustment with ease.	.662
4.	Keep your word and fulfill your commitments.	.748
5.	I continuously learn to improve my performance.	.750
6.	I can go to attend more number of patients at a time	.680
7.	Rude behaviour of patient's can be adjusted	.537
8.	I am able to manage Dual commitments for family and profession	.597

Source: *Computed SPSS Data*

Extraction Met hod: *Principal Co mponent Analysis.*

From the Table 10, explicit that communalities value of self-regulation on emotional intelligence, all the statements are more than value of 0.50 which indications a good correlation value.

Rotated Component Matrix - Self-Regulation on Emotional Intelligence

Table 11 interpreted the Pattern Matrix Rotation of self-regulation on emotional intelligence.

Code	Statements	Component		
		1	2	3
	I can calm myself in stressful situations.	**.846**	-.075	-.082
	Manage numerous demands, changing priorities, and quick adjustment with ease.	**.752**	.087	.297
	I'm pretty good at managing my own feelings.	**.748**	.016	.220
	I can go to attend more number of patients at a time	-.146	**.789**	-.189
	I am capable to manage Dual commitments for family and profession	.150	**.757**	.040
	Rude behaviour of patient's can be adjusted	-.007	**.716**	.156
	I continuously learn to improve my performance.	.152	-.046	**.852**
	Keep your word and fulfill your commitments.	.137	.078	**.851**

Source: *Computed SPSS Data*

Extraction Method*: Pri ncipal Compo nent Analysis.*

Rotation Method: *Varimax with Kaiser Nor malization.*

Table 11 makes it evident that every factor loading of self-regulation on emotional intelligence are more than the threshold value of 0.50 which is separated into three parts. Therefore, all the statements have been employed in the examination of Confirmatory Factor Analysis.

Measurement Model of Self-Regulation of Emotional Intelligence

The Second Component of Emotional Intelligence is Self- Regulation. All the statements in the component are explored with the help of Exploratory Factor Analysis (EFA). Those identified factors are further validated using Confirmatory Factor Analysis (CFA) of the first order. The model of measurement of Self-Regulation of Emotional Intelligence is done through AMOS graphics is shown in figure 3

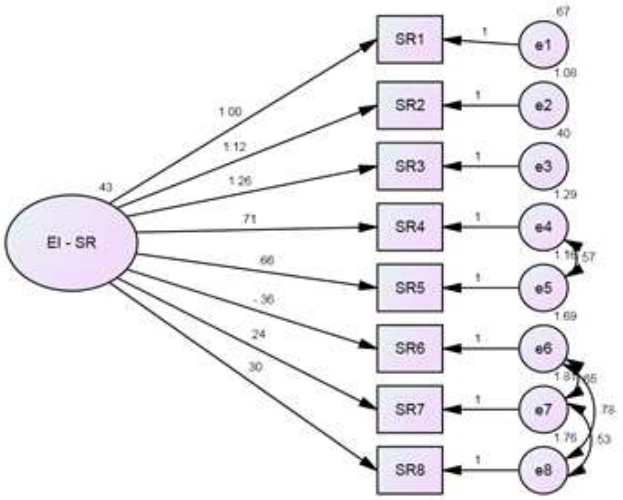


Figure 3: Measurement Model of Self-Regulation on Emotional Intelligence

Table 12: Model Fit indices CFA results of Self-Regulations on Emotional Intelligence

Name of Index	Obtained Value	Level of Acceptance	Observations
RMSEA	0.087	<0.08	The required level is Achieved
GFI	0.960	>0.90 / >0.80	Moderately the required level is achieved
AGFI	0.909	>0.90 / >0.80	Moderately the required level is achieved
CFI	0.924		
TLI	0.867		
CMIN/DF	3.351	<3.0 / <5.0	The required level is Achieved

KMO and Bartlett's Correlation Suitability Tests to evaluate the Relationship Management of Emotional Intelligence

Typically, a value above 0.5 is thought to be appropriate for factor analysis., However, greater values are typically more desirable.

Cronbach's Alpha for Relationship Management on Emotional Intelligence

The Cronbach's alpha test is an analysis of reliability or consistency. Table 13 shows that the reliability findings test for relationship management on emotional intelligence.

Table 13: Reliability Statistics of Relationship Management on Emotional Intelligence

Cronbach's Alpha	No. of Items
.675	07

Source: *Computed SPSS Data*

The Cronbach's Alpha value more than 0.6 is regarded as trustworthy. From the Table 13 shows that, Cronbach's Alpha value for the ten statements value is 0.675 for the relationship management on emotional intelligence statements have more than the acceptable value. Thus, the information is very trustworthy.

KMO and Bartl ett's Test of Sp hericity of Relationship Management on Emotional Intelligence

The KMO test shows the ratio of the squared correlation to the squared partial correlation between the variables (Kaiser H.F., 1974). The KMO loading value must be loaded between 0.5 and 1.0 for applying factor analysis. The researcher has analysed the KM O and Bartlett' s Test of relationship management on emotional intelligence and the results are displayed in Table 14.

Table 14:KM O & Bartlett's Test of Relationship Management on Emotional Intelligence

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Index of Sampling Sufficiency		.724
Bar tlett's Test of S phericity	Approx. Chi-Square	721.070
	Df	21
	Sig.	.000

Source: *Computed SPSS Data*

The KMO measure value for the relationship management on emotional intelligence is 0.724, which is more than the acceptable value of 0.50. The Barlett's test of sphericity's chi square value at 21 degrees of freedom is 721.070. The acceptable threshold of 0.05 is exceeded by the P value of 0.000. The outcomes of these indices show that the statements are validation for running a factor analysis.

Explained total variance of Relationship Management on Emotional Intelligence

Explained total variance of relationship management on emotional intelligence is stated in the Table 15.

Table 15: Total variance explained of Relationship Management on Emotional Intelligence

Component	Initial Eigenvalues			Sums of Ex traction for Squa red Loadi ngs			Rotation Sums of Square Loadings
	Total	of Variance	Cumulative	Total	of Variance	Cumulative	Total
1	2.531	36.163	36.163	2.531	36.163	36.163	2.439
2	1.992	28.460	64.623	1.992	28.460	64.623	2.085

Source: *Computed SPSS Data*

Extraction Method: *Princi pal Com ponent Anal ysis*

It shows that there are two components to the statements accounted for a total cumulative variance of Sums of Rotation for Squared Loadings value 64.623.

Communalities Variance Extractions of Relationship Management on Emotional Intelligence

The communalities result for the relationship management on emotional intelligence are presented in Table 16.

Table 16: Communalities of Relationship Management on Emotional Intelligence

S. No	Statements	Extraction
1.	Help based on understanding other people's needs and feeling	.818
2.	I understand patients' needs and match them to services provided	.836
3.	I respect and relate well to people from varied backgrounds.	.735
4.	Insufficient medicines/ equipment's	.513
5.	Hospital Work Environment is comfortable	.617
6.	I am able to adopt Patients Behaviour	.553
7.	Frequent interruption by supervisor/ doctors/ patients can be managed	.451

Source: *Computed SPSS Data*

Extraction Met hod: *Pri ncipal Com ponent Analysis.*

All the statements are more than value of 0.40 which symptoms a good correlation value for relationship management on emotional intelligence.

Rotated Component Matrix - Relationship Management on Emotional Intelligence

Table 17 inferred that Pattern Matrix Rotation for relationship management on emotional intelligence.

Code	Statements	Component	
		1	2
	I understand patients' needs and match them to services provided	**.909**	.100
	Help based on understanding other people's needs and feeling	**.904**	-.008
	I respect and relate well to people from varied backgrounds.	**.857**	.024
	Hospital Work Environment is comfortable	.129	**.775**
	I am able to adopt Patients Behaviour	-.075	**.740**
	Insufficient medicines/ equipment's	-.082	**.711**
	Frequent interruption by supervisor/ doctors/ patients can be managed	.175	**.648**

Source: *Computed SPSS Data*

Extraction Method: *Pri ncipal Compone nt Ana lysis.*

Rotation Method: *Varima x with K aiser No rmalization.*

It states that, all of the elements are more than the threshold value of 0.50 and are used for the analysis of Confirmatory Factor Analysis.

Measurement Model of Relationship Management of Emotional Intelligence

The Third Component of Emotional Intelligence is Relationship Management. All the statements in the component are explored with the help of Exploratory Factor Analysis (EFA). First order Confirmatory Factor Analysis is used to further validate those factors. (CFA). The model of measurement of Relationship Management of Emotional Intelligence is done through AMOS graphics is shown in figure 4.

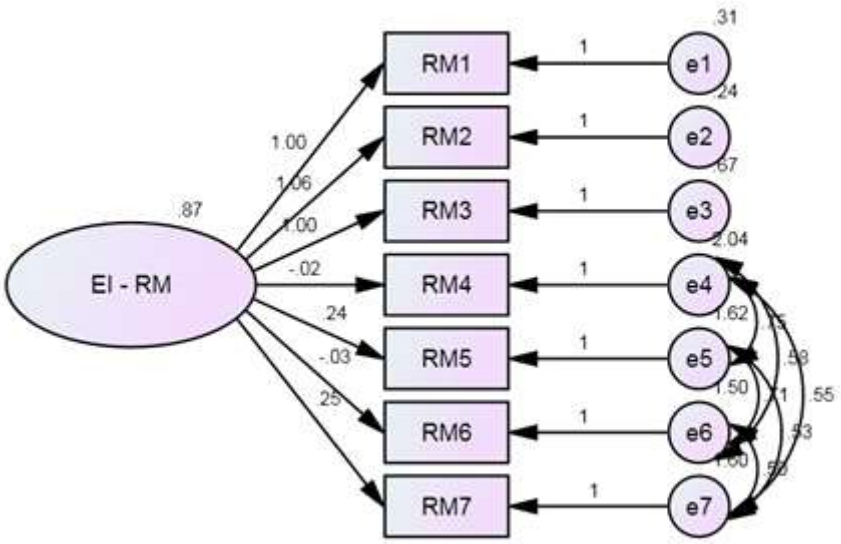


Figure 4: Measurement Model of Relationship Management of Emotional Intelligence

Table 18: Model Fit indices CFA results of Relationship Management on Emotional Intelligence

Name of Index	Obtained Value	Level of Acceptance	Observations
RMSEA	0.059	<0.08	The required level is Achieved
GFI	0.985	>0.90 / >0.80	Moderately the required level is achieved
AGFI	0.948	>0.90 / >0.80	Moderately the required level is achieved
CFI	0.988		
TLI	0.968		
CMIN/DF	2.080	<3.0 / <5.0	The required level is Achieved

KM O and Bartlett' s Test of S phericity to evaluate the Social Skill on Emotional Intelligence

Typically, a value above 0.5 is thought to be appropriate for factor analysis, while greater values are typically more desirable.

Cronbach's Alpha for Social Skill on Emotional Intelligence

The testing of reliability analysis of the social skill on emotional intelligence statements are fitting for the factor analysis the results are interpreted in the Table 19.

Table 19: Reliability Statistics of Social Skill on Emotional Intelligence

Cronbach's Alpha	No. of Items
.654	07

Source: *Computed SPSS Data*

Cronbach's Alpha value is 0.654 for the social skill on emotional intelligence, which is more than the acceptable value of 0.6. So the statements are highly reliable.

KM O and Bartlett' s Correlation Suitability Tests of Social Skill on Emotional Intelligence

The KM O loading value must be loaded between 0.5 and 1.0 for applying factor analysis. The researcher has analyzed the KM O and Bartlett' s Correlation Suitability Tests of social skill on emotional intelligence and the results are displayed in Table 20.

Table 20: KM O and Bartlett's Correlation Suitability Tests of Social Skill on Emotional Intelligence

KM O and Bartlett' s Correlation Suitability Test		
Kaiser-Meyer-Olkin Index of Sampling Suffici ency		.718
Bartlett' s Test of S phericity	Approx. Chi-Square	619.014
	Df	21
	Sig.	.000

Source: *Computed SPSS Data*

In the Table 20, the KMO measure is 0.718 for the social skill on emotional intelligence which is loaded between value of 0.5 and 1.0. At 21 degrees of freedom, Barlett's test of sphericity yields a chi square value of 619.014. The P value is 0.000, which is lower than the acceptable value of 0.05.

Explained total variance of Social Skill on Emotional Intelligence

Explained total variance of social skill on emotional intelligence is presented in the Table 21.

Table 21: Explained total variance - Social Skill on Emotional Intelligence

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Square Loadings
	Total	of Variance	Cumulative	Total	of Variance	Cumulative	Total
1	2.608	37.263	37.263	2.608	37.263	37.263	2.510
2	1.828	26.111	63.374	1.828	26.111	63.374	1.926

Source: *Computed SPSS Data*

E xtraction Method: *P rincipal Comp onent Anal ysis.*

The two factors that were extracted explained 63.374 and 37.263 per percentage of the overall variance in the data, which exceed the acceptable value further it is carrying out for factor analysis.

Communalities Variance Extractions of Social Skill on Emotional Intelligence

The communality is denoted by h^2 and is the summation of the squared correlations of the variable with the factors (Cattell, 1973). The communalities result for the social skill on emotional intelligence are presented in Table 22.

Table 22: Communalities of Social Skill on Emotional Intelligence

S. No	Statements	Extraction
1.	Lead as an example	.648
2.	promote a friendly, co-operative climate	.745
3.	I have adapted well with the culture of the organization.	.681
4.	I am a self-motivated person.	.473
5.	Keep your relationships with coworkers positive.	.572
6.	Change of shift hours is adjusted with colleagues	.633
7.	There is no Work pressure	.685

Source: *Computed SPSS Data*

Extraction Method: *Principal Component Analysis.*

All the statements are more than value of 0.40 which indications a good correlation value for social skill on emotional intelligence.

Matrix of Rotated Components - Social Skill on Emotional Intelligence

Matrix of Rotated Components is a method to make simpler explanation of a factor analysis. The rotated component matrixes for the social skill on emotional intelligence are presented in the Table 23.

Table 23: Rotated Component Matrix of Social Skill on Emotional Intelligence

Code	Statements	Component	
		1	2
	Promote a friendly, co-operative climate	**.857**	-.105
	I have adapted well with the culture of the organization.	**.815**	-.131
	Lead as an example	**.796**	-.123
	I am a self-motivated person.	**.659**	.195
	There is no Work pressure	-.129	**.818**
	Change of shift hours is adjusted with colleagues	.124	**.786**
	Keep your relationships with coworkers positive.	-.115	**.747**

Source: *Computed SPSS Data*

Extraction Method: *Principal Component Analysis.*

Rotation Method: *Varimax with Kaiser Normalization.*

Table 23 makes this evident.all the factors' loadings of social skill on There is more to emotional intelligence than the threshold value of 0.60 which is divided into two factors. Further these all statements are having been used for the analysis of the Confirmatory Factor analysis.

Measurement Model of Social Skill on Emotional Intelligence

The Fourth Component of Emotional Intelligence is Social Skill. All the statements in the component are explored with the help of Exploratory Factor Analysis (EFA). Those identified factors are further validated using Confirmatory Factor Analysis of the First Order (CFA). Using First Order Confirmatory Factor Analysis of Social Skill of Emotional Intelligence is done through AMOS graphics is shown in figure 5.

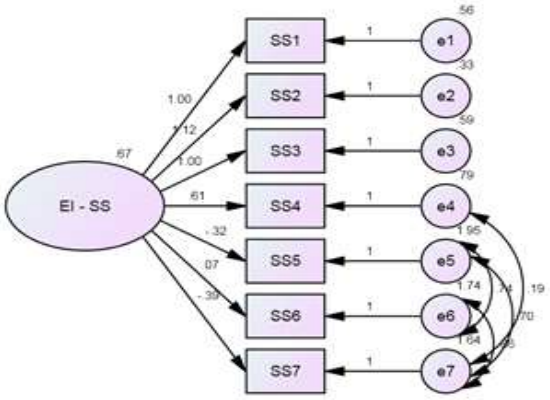


Figure 5: Measurement Model of Social Skill on Emotional Intelligence

Table 24: Model Fit indices CFA results of Social Skill on Emotional Intelligence

Name of Index	Obtained Value	Level of Acceptance	Observations
RMSEA	0.074	<0.08	The required level is Achieved
GFI	0.978	>0.90 / >0.80	Moderately the required level is achieved
AGFI	0.938	>0.90 / >0.80	Moderately the required level is achieved
CFI	0.971		
TLI	0.940		
CMIN/DF	2.735	<3.0 / <5.0	The required level is Achieved

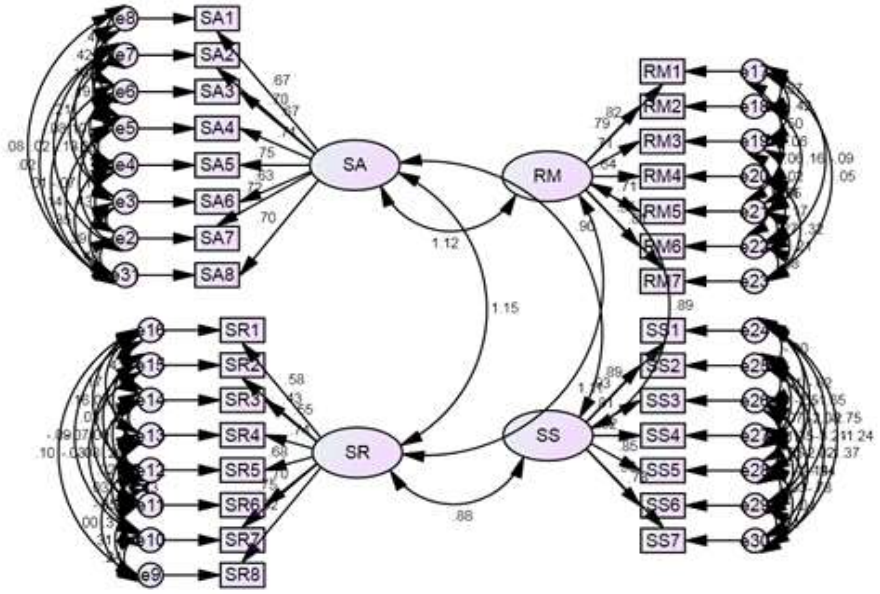


Figure 6: Measurement Model of Emotional Intelligence

Table 25: **Model Fit indices CFA results on Emotional Intelligence**

Name of Index	Obtained Value	Level of Acceptance	Observations
RMSEA	0.077	<0.08	The required level is Achieved
GFI	0.831	>0.90 / >0.80	Moderately the required level is achieved
AGFI	0.809	>0.90 / >0.80	Moderately the required level is achieved
CFI	0.813		
TLI	0.809		
CMIN/DF	3.432	<3.0 / <5.0	The required level is Achieved

Table 26:Regression Weights: (Group number 1 - Default model)

			SRW Estimate	RW Estimate	S.E.	C.R.	P
dcp	<---	F1	.722	.736	.040	18.502	***
nocoop	<---	F1	.631	.577	.039	14.769	***
aec	<---	F1	.749	.783	.039	20.043	***
ni	<---	F1	.708	.734	.040	18.160	***
sw	<---	F1	.666	.664	.041	16.110	***
acfail	<---	F1	.701	.674	.038	17.620	***
coa	<---	F1	.668	.587	.037	16.009	***
dc	<---	F2	.823	1.000			
rude	<---	F2	.749	.811	.039	20.856	***
attmp	<---	F2	.698	.691	.037	18.683	***
Ip	<---	F2	.679	.656	.040	16.275	***
Mckp	<---	F2	.740	.737	.039	18.750	***
Shmd	<---	F2	.551	.507	.043	11.905	***
Css	<---	F2	.430	.361	.041	8.722	***
Come	<---	F2	.584	.537	.041	13.067	***
Underst	<---	F3	.823	1.000			
Upn	<---	F3	.785	.910	.033	27.919	***
Rp	<---	F3	.710	.750	.037	20.300	***
Insmed	<---	F3	.644	.593	.040	14.914	***
Hoswe	<---	F3	.714	.741	.041	17.970	***
Pb	<---	F3	.548	.428	.036	11.753	***
Freis	<---	F3	.814	.945	.040	23.393	***
Leex	<---	F4	.891	1.000			
Prcoop	<---	F4	.926	.940	.040	23.333	***
Ao	<---	F4	.806	.767	.041	18.830	***
Smp	<---	F4	.818	.789	.049	15.964	***
Prwc	<---	F4	.848	.772	.053	14.450	***
Chs	<---	F4	.958	1.036	.057	18.056	***
Wp	<---	F4	.728	.666	.056	11.854	***
Nonad	<---	F1	.695	.690	.040	17.358	***

Overall Findings

All four emotional intelligence dimensions—Self-Awareness (SA), Self-Regulation (SR), Relationship Management (RM), and Social Skill (SS)—show strong and substantial interrelationships, based on the model. Relationship management and self-awareness have a strong positive connection, suggesting that improved self-awareness improves interpersonal efficacy. In a same spirit, self-regulation and social skill are positively connected, indicating that stronger social interactions are backed by the capacity to control emotions. All constructs are generally well-measured and mutually reinforcing,

demonstrating how advancements in one aspect of emotional intelligence influence the growth of others.

Suggestions

According to the results, hospitals and nursing homes should concentrate on improving emotional intelligence through organized training programs that foster social skills, self-awareness, self-regulation, and relationship management. Nurses can better understand and manage their emotions by engaging in activities like mindfulness training, stress management classes, and reflective practices. To improve interpersonal connections and teamwork at work, communication skill development, team-building activities, and conflict resolution training should be promoted. The overall efficacy of nurses can be increased and patient care outcomes can be improved by incorporating emotional intelligence into nursing education and ongoing professional development programs.

Conclusion

The study concludes that nurses exhibit a moderate to high level of emotional intelligence, with stronger competencies observed in self-awareness and self-regulation, particularly in areas such as emotional control, adaptability, and professional commitment. However, comparatively lower levels are identified in situational and interpersonal competencies, including managing critical patients, handling emergency situations, adapting to workplace conditions, and coordinating effectively with colleagues. Additionally, the results show that operational challenges such as workload intensity, shift-related issues, and resource constraints influence the application of emotional intelligence in practice. Overall, emotional intelligence is not evenly dispersed throughout all dimensions, highlighting the need for targeted interventions to strengthen specific skill areas, as it plays an important part in improving professional effectiveness, interpersonal relationships, and overall organizational performance in the healthcare sector.

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