

Impact of Nurses Emotional Intelligence & Self Compassion on Quality of Hospital Services at Selected Hospitals of Punjab

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ABSTRACT

Background: Nurses has to be emotionally intelligent and self-compassionate in providing effective quality care to the patients. **Purpose:** to assess the impact of nurse's self-compassion & emotional intelligence on quality of services of hospitals. **Materials & methods:** data was collected from 500 staff nurses and 500 in-patients from September 2015 to December 2015 at SGRD hospital Amritsar & Rajindra hospital, Patiala following convenient sampling. The data was collected by self-compassion questionnaire, trait emotional intelligence questionnaire, service quality questionnaire and patient satisfaction questionnaire. **Results:** The results revealed that majority 74.13% of nurses had moderate self-compassion, emotional intelligence of all (100%) nurses were average, patients in both hospitals perceived poor service quality & highest percentage 55.43% patients had average satisfaction with the nursing care services **Conclusion:** the study highlighted the aspects to be improved in delivering quality services to patients.

Keywords: *self-compassion, emotional intelligence, service quality, patient satisfaction, nurses & patients.*

Background

Quality care has become an important aspect in the development of healthcare services. Patient satisfaction on healthcare quality plays a vital part on the assessment of healthcare frequently. Nurses have a major responsibility in providing quality care services to patients (Gerense H. et al., 2015). In providing quality health care service nurses has to be emotionally intelligent (Helaly S. et al., 2013), self-compassionate (Heffernan M. et al., 2010) and should have good communication skills, because these parameters are inter-related and strongly influence the nurses in delivering services (Khan M.H. et al., 2007). Self-compassion is defined as maintaining a kind, understanding attitude toward oneself while accepting one's limitations as a natural part of the human experience. The self-compassionate people acknowledge and keep aside their sufferings which facilitate them for more adaptive functioning for expressing self-kindness and identification of human connectedness (Neff K.D. et al., 2007). Self-compassion is associated with positive psychological strengths such as happiness, optimism, wisdom, curiosity and exploration, personal initiative, and emotional intelligence (Heffernan M. et al., 2010; Hollis-Walker L. & Colosimo K., 2011; Neff K.D. et al., 2007). Another important construct affecting the quality of health care services is the emotional intelligence of nurses. High level of emotional intelligence of nurses' is positively related to high performance levels, improved patient outcomes, positive productive workplace relationships, work place leadership, decreased job turnover, experiencing less burnout and overall leading a happier, healthier and more productive professional life.

(Manal M.B. & Sanaa M.S., 2012; Delpasand M., 2011). Patient satisfaction has been defined as ‘the patient’s opinion of the care received from nursing. It is “the degree to which nursing care meets patients’ expectation in terms of art of care, technical quality, physical environment, availability and continuity of care, and the efficacy/outcomes of care (Hinshaw A.S., 1982; Mrayyan M.T. (2006). The assessment of patient satisfaction with the process of care is an important measure of the care quality and it allows identifying the phases of the process to be improved. Satisfaction strongly increases when care is provided in accordance with the clinical standard procedures (Marchisio S. et al., 2006).

Objectives

1. To measure the nurses’ emotional intelligence & self-compassion.
2. To assess the patients satisfaction with the quality of services.
3. To determine the level of quality of services.
4. To assess the impact of nurses’ self-compassion on quality of services.
5. To find out the impact of nurses’ emotional intelligence on quality of services.
6. To assess the relationship between nurses’ emotional intelligence & self- compassion.
7. To ascertain relationship of nurses’ emotional intelligence score and self-compassion score with the demographic variables.
8. To identify the relationship of patients’ satisfaction score and service quality score with the demographic variables.

Materials & methods

A non-experimental descriptive cross sectional survey research design was used to collect data from 500 staff nurses and 500 in-patients from September 2015 to December 2015 at SGRD hospital Amritsar & Rajindra hospital, Patiala. Non-probability convenient sampling technique was used. The self-report questionnaires were distributed to 500 nurses and 500 in-patients and 460 completed questionnaires from nurses and 460 completed questionnaires from patients were received back. The research data was analysed using descriptive and inferential statistics.

The sample size ws calculated by the following formula:

$$\text{Sample size} = \frac{4 \times \sigma^2}{d^2}$$

Research instruments

Part-1 demographic characteristics

- Nurses i.e. age, gender, professional qualification in nursing, department of working, experience, marital status, if married, number of children, type of family, habitat, family income and attended any in-service education program on self-compassion/emotional intelligence.
- Patients i.e. age, gender, education, occupation, residence, number of times admitted in hospital and admitted in ward.

Part-2 includes: Self-compassion questionnaire (Neff K.D., 2003); Trait Emotional intelligence questionnaire- short form (Petrides K.V. and Furnham A. (2006); Service quality questionnaire (Parasuraman A., Zeithmal A.V. and Berry L.L. 1988) and Patient satisfaction questionnaire (self structured). A pilot study was conducted at Guru Teg Bahadur Hospital, Ludhiana from 06/08/2015 to

09/08/2015 to find out the cronbach alpha coefficient of various questionnaires. Cronbach alpha coefficient was high for each questionnaire and its dimensions. The blue print of these questionnaires is described in Table 1; Table 2; Table 3 & Table 4.

Scoring of Self-compassion

To assess the self-compassion, the subscale scores were computed by calculating the mean of subscale item responses. To compute a total self-compassion score, reverse scoring of the negative subscales were done, then computed a total mean.

Scoring of Trait Emotional intelligence

For calculating the trait EI, negative items were reverse scored & then all the responses were summed up. The question number 14, 29, 3 and 18 are independent and are not considered in the four factors described above but are involved in calculating the overall global trait emotional intelligence score.

Scoring of Service Quality (SERVQUAL)

Reverse score the negative items in the scale then sum up the responses in each dimension and calculate the mean. According to Parasuraman A. et al., (1988) the higher (more positive) the perception (P) minus expectation (E) score, the higher the perceived service quality and thereby leading to a higher level of patient satisfaction.

Scoring of Patient Satisfaction

For calculating the patient satisfaction the negative items were reverse scored & then the total score was obtained by summing up all the responses.

Results

Majority (76.08%) of nurses were in the age group of 21-25 years; all (100%) nurses were female; maximum (47.60%) of nurses had GNM qualification; highest percentages (40.86%) of nurses were from other wards i.e. oncology, orthopedic, accident and emergency, pediatric, gastrointestinal, gynecology, ENT, and pulmonary medicine and the lowest percentage 11.08% of nurses were from ICU/CCU; highest percentage 38.26% of nurses had 1-3 years of experience; majority (73.04%) of nurses was married and majority 58.03% had one child and 41.36% had two children; highest percentage 56.73% of nurses were belonging to joint family; majority (73.91%) of nurses was from urban areas; highest percentage 55.86% of nurses monthly family income was 20000-30000 rupees; only 13.04% of nurses had attended in-service education program on self-compassion and emotional intelligence and among them 76.92% had attended in-service education program only once and 51.66% of them had attended in-service education program 1-3 years back.

Highest percentage (46.08%) of patients were in the age group of 20-25 years; highest percentage (57.82%) of patients were male; highest percentages (40%) of patients were graduate; highest percentage 51.08% of patients was from urban areas; majority 77.17% of them were having other occupations i.e. private jobs, business, students etc; 35.43% of them were admitted in the hospital for the first time; 40.86% of patients were from other wards i.e. gynecology, cardiology, orthopedic, TB & chest ward, ENT & eye ward, urology ward, cancer ward and private and semi private wards.

Emotional intelligence of nurses

- All 100% nurses had average emotional intelligence.

- Over all the nurses has highest mean for the emotionality dimension and lowest mean for the self-control. Hence it can be interpreted that the nurses were more emotionally intelligent in the area of emotionality aspect of emotional intelligence (Table 5).

Self-compassion of nurses

- Majority 74.13% of nurses had moderate self-compassion and 25.87% nurses had high self-compassion (Table 6).
- Dimension wise comparison of mean and SD of self-compassion of nurses revealed that in SGRD hospital the highest mean 3.35 ± 0.93 was obtained in the dimension of mindfulness and in Rajindra hospital the highest mean 3.48 ± 0.90 was obtained in the dimension of common humanity. Overall, highest mean 3.43 ± 0.90 was found for the dimension of common humanity (Table 7).

Patient satisfaction with the delivered nursing services

- The highest percentage 55.43% patients had average satisfaction with the nursing care services (Table 8).
- In SGRD hospital the highest mean 28.89 ± 3.65 was obtained for the dimension of therapeutic skills whereas in Rajindra hospital the highest mean 31.32 ± 4.12 was found for the dimension of communication and information (Table 9).

Service quality

Gap score was analysed for all the items (perception mean – expectation mean = gap score) and it was found that the gap score was negative for all the items indicating the poor quality of hospital services (Table 10).

Hypotheses testing

Positive inter-dimension correlation was found between the emotional intelligence and self-compassion (Table 11); emotional intelligence and service quality (Table 12); self-compassion and service quality (Table 13); Emotional Intelligence & Patient Satisfaction (Table 14) and Self-compassion & Patient Satisfaction (Table 15) at $p < 0.05$.

Association of emotional intelligence score, self-compassion score, service quality score and patient satisfaction score with the demographic variables

Habitat of nurses was associated with the emotional intelligence of nurses at $p < 0.05$ (Table 17); type of family was associated with the self-compassion of nurses at $p < 0.05$ (Table 16); residence and occupation of patients were associated with the patient satisfaction with the delivered nursing services at $p < 0.05$ (Table 18); and the residence of the patients was also found to be associated with the service quality at $p < 0.05$ (Table 19).

Discussion

All the nurses' (100%) in this study had average emotional intelligence. This is supported by the findings of Helaly S. et al (2013) who reported that most of the nurses (92%) had average emotional intelligence and stated that a nurse who is able to understand and is aware of his/her own feelings and controls stress, negative emotions, and feelings of frustrations can provide effective care to the patients. Over all

the nurses' has highest mean for the emotionality dimension and lowest mean for the self-control. This was supported by Merkey L.L. (2010) who also found that the nurses' are more emotionally intelligent in the area of emotionality.

Overall 74.13% of nurses had moderate self-compassion and 25.87% of nurses had high self-compassion. Hence, it is concluded that majority of nurses had moderate self-compassion. Heffernan M. et al (2010) supported this by stating that majority 80% of nurses in their study had moderate level of self-compassion. Dimension wise, highest mean 3.43 ± 0.90 was found for the dimension of common humanity. Senyuva E. et al (2014) reported contradictly that the nurses has highest self-compassion in the dimension of self-kindness and lowest in the dimension of isolation. The gap score (Perceptions – Expectations = quality) calculated for measuring the quality of services was found negative for all the statements hence indicating the poor quality of services and the need of improvements. This was supported by the Tamilselvi A. & Reghunath R., (2014) stating that quality of services in hospital across all the five dimensions is poor and therefore needs improvements in all the dimensions.

Highest percentage 55.43% of patients had moderate satisfaction with the nursing care services. Hence it can be interpreted that the majority of patients admitted in the hospitals were moderately satisfied with the nursing care services. These findings are similar with the findings of Dzomeku V.M. et al (2013) who reported that 60% of patients are satisfied with the nursing care and 30% were highly satisfied & 10 % of them were uncertain about the nursing care services.

Dimension wise, in SGRD hospital the highest mean 28.89 ± 3.65 was obtained for the dimension of therapeutic skills whereas in Rajindra hospital the highest mean 31.32 ± 4.12 was found for the dimension of communication and information. Sharma S.K. and Kamra P.K. (2013) reported that most of the patients are satisfied with the therapeutic skills of the nurses.

Positive relationship was found between self-compassion, emotional intelligence, service quality and patient satisfaction at $p < 0.05$. Haffernan M. et al (2010) supported the positive relationship between emotional intelligence and self-compassion and stated that self-compassionate nurses are able to deliver more efficient quality of services to the patients, thereby affecting patient's satisfaction. Similarly, Ranjbar Ezzatabadi M. et al (2012) supported the positive relationship between emotional intelligence and quality of services; they suggested that the emotionally intelligent nurses are capable of delivering quality care to the patients which affects patient satisfaction.

Type of family of nurses has an influence on nurses' self-compassion. El-Sayed T. (2010) found that the emotional intelligence of nurses' is significantly associated with the type of family and marital status. Habitat influences the nurses' emotional intelligence. Haffernan M. et al (2010) reported that the self-compassion of nurses is associated with their working experience and residential status. Residence influences the patient's expectation and perception of quality of services. Jabnoun N. and Chaker M. (2003) found that patient's perceptions of quality of services are associated with their occupation, family income and residential status. Residence and occupation of patients has an influence on their satisfaction with the nursing care delivered to them. Sharma S.K. and Kamra P.K. (2013) reported that patient satisfaction with nursing care is associated with their education and occupation.

Conclusion

From the findings it can be concluded that all the nurses had average emotional intelligence and moderate level of self-compassion. Patients' expectation about the service quality was high whereas patient's perception about the service quality they received during hospitalization was low suggesting poor quality of service. Patients were averagely satisfied with the delivered nursing services. Hence, the hospitals need to make provision of increasing the emotional intelligence and self-compassion of nurses by incorporating orientation program, in-service education program & refresher courses on emotional intelligence and self-compassion. The health care managers should also take initiatives for improving the aspects of quality of services. Lastly, frequent monitoring is required to assess the quality of services and patient satisfaction with nursing care to identify the defective care aspects of health care organization and thus providing an opportunity for improvements.

Recommendations

Experimental studies related to impact of emotional intelligence on quality of services, impact of self-compassion on quality of services, impact of emotional intelligence on patient satisfaction, impact of self-compassion on patient satisfaction and effects of patients' satisfaction on quality of care can be undertaken. Comparative studies among many hospitals can be undertaken. Time series studies can be undertaken with intervention. Study can also be done with larger samples to generalize the findings.

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Table 1: Blue print of Self-compassion Questionnaire

Dimensions	Total items	Positive items	Negative items	Cronbach alpha coefficient	Score	Level of self-compassion
Self-kindness	5	5, 12, 19, 23, 26	-	0.91	MIN: 1 MAX:5	Low: 1-2.5 Moderate: 2.5-3.5 High: 3.5-5
Self-judgment	5	-	1, 8, 11, 16, 21	0.94		
Common humanity	4	3, 7, 10, 15	-	0.97		
Isolation	4	-	4, 13, 18, 25	0.93		
Mindfulness	4	9, 14, 17, 22	-	0.95		
Over-identification	4	-	2, 6, 20, 24	0.90		
Total	26	13	13	0.96		

Table 2: Blue print of Trait Emotional intelligence questionnaire - short form (TEIQue-SF)

Dimensions	Total items	Positive items	Negative items	Cronbach alpha coefficient	Score	Level of emotional intelligence
Emotionality	8	17, 23, 1	2, 8, 16, 13, 28	0.89	MIN: 1 MAX: 7	Below average= 1-29% Average= 30-69% Above average= 70-99%
Sociability	6	11, 6, 21	26, 10, 25	0.92		
Well-being	6	9, 24, 27, 20	12, 5	0.93		
Self-control	6	19, 15, 30	4, 7, 22	0.88		
Total	30	13	13	0.91		

Table 3: Blue print of Service Quality (SERVQUAL) Questionnaire

Dimensions	Total items	Positive items	Negative items	Cronbach alpha coefficient		Score
Tangible	4	1, 2, 3, 4	-	Expectations	0.89	MIN: 1 MAX: 7
				Perceptions	0.91	
Reliability	5	5, 6, 7, 8, 9	-	Expectations	0.87	
				Perceptions	0.94	
Responsiveness	4	13	10, 11, 12	Expectations	0.92	
				Perceptions	0.86	
Assurance	4	14, 15, 16, 17	-	Expectations	0.88	
				Perceptions	0.97	

Empathy	5	-	18, 19, 20, 21, 22	Expectations	0.95
				Perceptions	0.89
Total	22	14	8	Expectations	0.93
				Perceptions	0.95

Table 4: Blue print of Patient Satisfaction Questionnaire

Dimensions	Total items	Positive items	Negative items	Cronbach alpha coefficient	Score	Level of patient satisfaction
Communication and information	9	2, 4, 7, 9, 16, 26	6, 24, 25	0.94	MIN: 23 MAX:115	Poor = 1-38 Average= 39-76 Good= 77-115
Therapeutic skills	14	1, 10, 11, 12, 13, 15, 17, 18, 19, 20, 23	3, 8, 14	0.89		
Total	23	17	6	0.91		

Table 5: Dimension Wise Mean and SD of Emotional Intelligence of Nurses'

Dimensions of Emotional Intelligence	Score	SGRD Hospital, Amritsar n=200		Rajindra Hospital, Patiala n=260		Total	
		Mean	SD	Mean	SD	Mean	SD
Emotionality	Max 56	29.93	5.84	30.08	6.01	30.01	5.93
	Min 8						
Sociability	Max42	25.02	4.13	25.29	4.31	25.17	4.22
	Min 6						
Well-being	Max 42	27.57	4.16	28.46	3.41	28.07	3.76
	Min 6						
Self-control	Max42	23.94	5.28	24.96	5.15	24.51	5.23
	Min 6						
Total	Max 210	26.61	4.85	27.19	4.72	26.94	4.78
	Min 30						

Table 6: Frequency and Percentage of Nurses' Self-compassion

Sl. no.	Self-compassion score	SGRD Hospital, Amritsar n=200		Rajindra Hospital, Patiala n=260		Total	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	Low	-	-	-	-	-	
2	Moderate	152	76	189	72.69	341	74.13
3	High	48	24	71	27.30	119	25.87
Total		200	100	260	100	460	100

Maximum score:189 (72.69%)

Minimum score: 48 (24%)

Table 7: Dimension wise Mean and SD of Nurses' Self-compassion

Dimensions of self-compassion	Score	SGRD Hospital, Amritsar n=200		Rajindra Hospital, Patiala n=260		Total	
		Mean	SD	Mean	SD	Mean	SD
Self-kindness	Max 5	3.33	0.87	3.26	0.88	3.29	0.87
	Min 1						
Self-judgment	Max 5	3.25	0.88	3.26	0.88	3.26	0.87
	Min 1						
Common humanity	Max 5	3.18	0.89	3.48	0.90	3.43	0.90
	Min 1						
Isolation	Max 5	2.94	1.01	2.98	0.96	2.96	0.98
	Min 1						
Mindfulness	Max 5	3.35	0.93	3.34	0.95	3.34	0.94
	Min 1						
Over identification	Max 5	3.08	1.02	3.18	1.01	3.14	1.01
	Min 1						
Total	Max 5	3.18	0.93	3.25	0.93	3.23	0.92
	Min 1						

Table 8: Frequency and Percentage Distribution of Patient Satisfaction with Delivered Nursing Services

Sl. no.	Patient Satisfaction score	SGRD Hospital, Amritsar n=200		Rajindra Hospital, Patiala n=260		Total	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	Poor satisfaction	74	37	117	45	191	41.52
2	Average satisfaction	117	58.5	138	53.07	255	55.43
3	Good satisfaction	9	4.5	5	1.92	14	3.03
Total		200	100	260	100	460	100

Maximum score:138 (53.07%)

Minimum score: 5 (1.92%)

Table 9: Dimension wise Mean and SD of Patient Satisfaction with Delivered Nursing Services

Dimensions of Patient Satisfaction	Score	SGRD Hospital, Amritsar n=200		Rajindra Hospital, Patiala n=260		Total	
		Mean	SD	Mean	SD	Mean	SD
Communication and information	Max 45	22.35	4.46	31.32	4.12	26.83	4.31
	Min 9						
Therapeutic skills	Max 70	28.89	3.65	24.28	3.21	26.58	3.41
	Min 14						
Total	Max 115	25.62	4.05	27.8	3.66	26.70	3.86
	Min 23						

Table 11: Inter-dimension Correlation between Emotional Intelligence and Self-Compassion

		Dimensions of Self-compassion						Dimensions of Emotional intelligence				
		SK	SJ	CH	ISO	MIN	OVI	EMO	SOC	WEL	SEL	
Dimensions of Self-compassion	SK	1	0.65	0.71	0.63	0.68	0.59	0.61	0.62	0.51	0.64	SK
	SJ	0.67	1	0.57	0.62	0.58	0.66	0.79	0.73	0.64	0.56	SJ
	CH	0.63	0.76	1	0.73	0.69	0.57	0.63	0.55	0.79	0.68	CH
	ISO	0.69	0.83	0.67	1	0.68	0.68	0.83	0.74	0.63	0.72	ISO
	MIN	0.72	0.73	0.86	0.87	1	0.73	0.67	0.72	0.76	0.61	MIN
	OVI	0.69	0.79	0.79	0.79	0.69	1	0.64	0.58	0.77	0.62	OVI
Dimensions of Emotional intelligence	EMO	0.65	0.76	0.74	0.71	0.66	0.67	1	0.75	0.64	0.58	EMO
	SOC	0.78	0.62	0.71	0.63	0.77	0.76	0.62	1	0.76	0.63	SOC
	WEL	0.81	0.77	0.88	0.61	0.75	0.64	0.76	0.65	1	0.72	WEL
	SEL	0.74	0.69	0.83	0.77	0.79	0.78	0.89	0.61	0.65	1	SEL

Key: SK- Self Kindness; SJ- Self-judgment; CH- Common humanity; ISO- Isolation; MIN- Mindfulness; OVI- Over identification; EMO- Emotionality; SOC- Sociability; WEL- Wellbeing; SEL- Self-control

Table 12: Inter-dimension Correlation between Emotional Intelligence and Service Quality

		Dimensions of Emotional intelligence				Dimensions of Service quality					
		EMO	SOC	WEL	SEL	TAN	REL	RES	ASS	EMP	
Dimensions of Emotional intelligence	EMO	1	0.76	0.62	0.72	0.79	0.71	0.69	0.78	0.81	EMO
	SOC	0.72	1	0.8	0.71	0.63	0.61	0.67	0.73	0.62	SOC
	WEL	0.69	0.65	1	0.87	0.65	0.73	0.52	0.64	0.71	WEL
	SEL	0.79	0.63	0.78	1	0.77	0.75	0.71	0.72	0.63	SEL
Dimensions of Service quality	TAN	0.77	0.65	0.74	0.69	1	0.61	0.68	0.73	0.61	TAN
	REL	0.68	0.73	0.69	0.62	0.81	1	0.66	0.81	0.79	REL
	RES	0.72	0.83	0.74	0.64	0.66	0.83	1	0.77	0.64	RES
	ASS	0.83	0.67	0.68	0.71	0.72	0.68	0.69	1	0.71	ASS
	EMP	0.71	0.74	0.73	0.67	0.66	0.72	0.71	0.67	1	EMP

Key: EMO- Emotionality; SOC- Sociability; WEL- Wellbeing; SEL- Self-control; TAN-Tangibles; REL- Reliability; RES- Responsiveness; ASS- Assurance; EMP- Empathy

Table 13: Inter-dimension Correlation between Self-Compassion and Service Quality

		Dimensions of Self-compassion						Dimensions of Service quality					
		SK	SJ	CH	ISO	MIN	OVI	TAN	REL	RES	ASS	EMP	
Dimensions of Self-compassion	SK	1	0.63	0.68	0.78	0.71	0.69	0.62	0.77	0.81	0.68	0.76	SK
	SJ	0.66	1	0.74	0.68	0.79	0.78	0.74	0.74	0.64	0.61	0.76	SJ
	CH	0.63	0.61	1	0.64	0.75	0.82	0.64	0.81	0.69	0.61	0.79	CH
	ISO	0.68	0.83	0.67	1	0.63	0.71	0.82	0.64	0.72	0.81	0.78	ISO
	MIN	0.76	0.63	0.73	0.87	1	0.68	0.64	0.61	0.75	0.64	0.83	MIN
	OVI	0.78	0.79	0.69	0.79	0.74	1	0.69	0.69	0.74	0.81	0.67	OVI
Dimensions of Service quality	TAN	0.83	0.67	0.76	0.83	0.64	0.66	1	0.66	0.69	0.72	0.77	TAN
	REL	0.74	0.71	0.69	0.64	0.67	0.76	0.83	1	0.78	0.75	0.65	REL
	RES	0.69	0.77	0.66	0.68	0.81	0.61	0.65	0.73	1	0.81	0.72	RES
	ASS	0.72	0.67	0.68	0.71	0.73	0.63	0.69	0.68	0.77	1	0.68	ASS
	EMP	0.76	0.73	0.63	0.77	0.62	0.67	0.75	0.61	0.63	0.74	1	EMP

Key: SK- Self Kindness; SJ- Self-judgment; CH- Common humanity; ISO- Isolation; MIN- Mindfulness; OVI-Over

identification; TAN-Tangibles; REL- Reliability; RES- Responsiveness; ASS- Assurance; EMP- Empathy

Table 10: Service quality Analysis

		SGRD Hospital			Rajindra Hospital		
		E Mean	P Mean	Gap Score (P-E)	E Mean	P Mean	Gap Score (P-E)
Tangibility	Hospital have upto date modern equipments	6.43	5.59	-0.84	6.4	5.46	-0.94
	Visually appealing physical facilities of the hospital	6.3	5.36	-0.94	6.31	5.01	-1.3
	The employees are well dressed and appear neat.	6.49	5.78	-0.71	6.49	5.45	-1.04
	The appearance of the physical facilities should be in keeping with the types of services provided.	5.9	5.7	-0.2	5.93	5.58	-0.35
Reliability	When hospital promises to certain things at a certain time, they do so.	6.5	5.82	-0.68	6.52	5.49	-1.03
	When a patient has a problem, the hospital is sympathetic and reassuring.	6.42	5.39	-1.03	6.33	5.12	-1.21
	The hospitals are dependable.	6.56	5.28	-1.28	6.56	5.06	-1.5
	The hospital provides the services at the time they promise to do so.	6.47	5.27	-1.2	6.42	4.89	-1.53
	The hospital keeps records accurately.	6.33	5.49	-0.84	6.31	5.03	-1.28
Responsiveness	The hospital is not expected to tell patients exactly when health care services will be performed.	5.74	5.25	-0.49	5.79	5	-0.79
	It is not realistic for patients to expect prompt service from employees of this hospital.	5.83	4.37	-1.46	5.95	4.4	-1.55
	Employees are not always willing to help patients.	5.02	4.41	-0.61	5.06	4.55	-0.51
	Employees are never busy to respond to patient's requests promptly.	6.16	4.49	-1.67	6.21	4.61	-1.6
Assurance	The patients are able to trust the employees of this hospital.	6.26	5.49	-0.77	6.28	5.63	-0.65
	Patients feel safe in their transaction with employees in the hospital.	6.11	5.56	-0.55	6.1	5.56	-0.54
	Polite employees.	6.17	5.56	-0.61	6.25	5.4	-0.85
	Their employees get adequate support from this	6.35	5.44	-0.91	6.4	5.36	-1.04

	hospital to do their job well.						
Empathy	hospitals are not expected to give patients individual attention	5.24	4.78	-0.46	5.35	4.54	-0.81
	Employees of this hospital cannot be expected to give patients individual attention	5.05	4.53	-0.52	5.02	4.55	-0.47
	It is unrealistic to expect employees to know what the needs of their patients are.	5.25	4.15	-1.1	5.27	4.08	-1.19
	It is unrealistic to expect this hospital to have their patient's best interest at heart.	4.78	4.46	-0.32	5.81	4.83	-0.98
	Hospital should not be expected to have operating hours convenient to their patients.	5.27	4.5	-0.77	5.27	4.63	-0.64

Table 14: Inter-dimension Corelation between Nurses' Emotional Intelligence & Patient Satisfaction with Delivered Nursing Services

		Dimensions of Emotional intelligence				Dimensions of Patient satisfaction		
		EMO	SOC	WEL	SEL	CI	TS	
Dimensions of Emotional intelligence	EMO	1	0.71	0.58	0.63	0.51	0.67	EMO
	SOC	0.63	1	0.64	0.84	0.71	0.63	SOC
	WEL	0.45	0.65	1	0.71	0.63	0.67	WEL
	SEL	0.78	0.61	0.59	1	0.78	0.56	SEL
Dimensions of Patient satisfaction	CI	0.72	0.63	0.55	0.67	1	0.82	CI
	TS	0.57	-0.67	0.54	0.82	0.56	1	TS

Key: EMO- Emotionality; SOC- Sociability; WEL- Wellbeing; SEL- Self-control; CI- Communication and information; TS- Therapeutic skills.

Table 15: Inter-dimension Correlation between Nurses Self-compassion & Patient Satisfaction with Delivered Nursing Services

		Dimensions of Self-compassion						Dimensions of Patient satisfaction		
		SK	SJ	CH	ISO	MI N	OVI	CI	TS	
Dimensions of Self-compassion	SK	1	0.69	0.71	0.76	0.69	0.78	0.61	0.77	SK
	SJ	0.66	1	0.61	0.64	0.67	0.68	0.75	0.63	SJ
	CH	0.64	0.61	1	0.87	0.74	0.71	0.73	0.67	CH
	ISO	0.71	0.84	0.72	1	0.77	0.69	0.64	0.73	ISO
	MI N	0.56	0.73	0.53	0.87	1	0.74	0.83	0.82	MI N
	OVI	0.68	0.81	0.61	0.79	0.72	1	0.66	0.68	OVI
Dimensions of Patient satisfaction	CI	0.83	0.67	0.59	0.63	0.65	0.73	1	0.82	CI
	TS	0.69	0.63	0.64	0.75	0.68	0.81	0.69	1	TS

Key: SK- Self Kindness; SJ- Self-judgment; CH- Common humanity; ISO- Isolation; MIN- Mindfulness; OVI- Over identification; I- Communication and information; TS- Therapeutic skills.

Table 16: Association of self-compassion score with the demographic variables of staff nurses

Variable	SGRD Hospital			Rajindra Hospital		
	f	Mean ± SD	p value	f	Mean ± SD	p value
Age (in years)						
i. 21-25	154	3.17 ± 0.31	0.22	196	3.27 ± 0.41	0.29
ii. 26-30	46	3.25 ± 0.25		64	3.23 ± 0.39	
Marrital status						
i. Married	141	3.22 ± .36	0.95	195	3.23 ± 0.38	0.21
ii. Unmarried	59	3.22 ± .39		65	3.30 ± .44	
If married, numbers of children						
i. One	83	3.24 ± .38	0.49	112	3.23 ± 0.35	0.92
ii. Two	57	3.20 ± .34		82	3.23 ± 0.43	
Type of family						
i. Joint	114	3.23 ± 0.36	0.02	147	3.29 ± 0.42	0.04
ii. Nuclear	86	3.21 ± 0.38		113	3.19 ± 0.37	
Habitat						

i. Urban	147	3.23 ± 0.38	0.75	193	3.24 ± 0.39	0.71
ii. Rural	53	3.21 ± 0.34		67	3.27 ± 0.42	
Attended any ISE program on self-compassion/EI						
i. Yes	26	3.24 ± 0.38	0.78	34	3.24 ± 0.46	0.82
ii. No	174	3.22 ± 0.27		226	3.25 ± 0.39	
If yes, how many times attended any ISE program on self-compassion/EI						
i. One	20	3.17 ± 0.31	0.07	25	3.23 ± 0.46	0.92
ii. two	6	3.49 ± 0.51		9	3.25 ± 0.49	
When was last ISE program attended						
i. < 1 year back	10	3.23 ± 0.31	0.93	17	3.33 ± 0.52	0.26
ii. > 1 year back	16	3.24 ± 0.43		17	3.15 ± .39	
Professional qualification						
i. GNM	97	3.27 ± 0.29	0.63	122	3.17 ± 0.19	0.36
ii. B.Sc. Nursing	48	3.25 ± 0.36		59	3.33 ± 0.11	
iii. Post Basic B.Sc. Nursing	55	3.24 ± 0.51		79	3.21 ± 0.15	
Working department						
i. Medical ward	40	3.22 ± 0.32	0.64	48	3.18 ± 0.91	0.49
ii. Surgical ward	58	3.17 ± 0.64		75	3.43 ± 0.23	
iii. Others	102	3.20 ± 0.67		137	3.34 ± 0.46	
Experience (in years)						
i. <1 to 3 years	154	3.18 ± 0.77	0.27	196	3.45 ± 0.13	0.53
ii. 4-6 years	40	3.28 ± 0.41		55	3.15 ± 0.35	
iii. 7-9 years	6	3.17 ± 0.35		9	3.26 ± 0.18	
Monthly family income (rupees)						
i. 10000-20000	43	3.22 ± 0.28	0.28	47	3.24 ± 0.36	0.31
ii. 20000-30000	112	3.36 ± 0.24		145	3.19 ± 0.37	
iii. >30000	45	3.17 ± 0.35		68	3.42 ± 0.11	

Table 17: Association of emotional intelligence score with the demographic variables of staff nurses

Variable	SGRD Hospital			Rajindra Hospital		
	<i>f</i>	Mean ± SD	<i>p</i> value	<i>f</i>	Mean ± SD	<i>p</i> value
Age (in years)						
i. 21-25	154	107.63 ± 11.64	0.51	196	109.87 ± 10.19	0.21
ii. 26-30	46	105.81 ± 10.88		64	110.18 ± 12.73	
Marrital status						
i. Married	141	106.21 ± 11.74	0.63	195	108.15 ± 11.49	0.11
ii. Unmarried	59	107.11 ± 12.84		65	110.75 ± 11.78	
If married, numbers of children						
i. One	83	106.37 ± 11.90	0.90	112	109.5 ± 11.49	0.06

ii. Two	57	106.14 ± 11.63		82	106.39 ± 11.38	
Type of family						
i. Joint	114	107.51 ± 11.83	0.15	147	108.82 ± 11.69	0.58
ii. Nuclear	86	105.08 ± 12.26		113	108.78 ± 11.53	
Habitat						
i. Urban	147	105.40 ± 12.45	0.03	153	108.55 ± 12.01	0.02
ii. Rural	53	109.43 ± 10.41		67	109.65 ± 10.38	
Attended any ISE program on self-compassion/EI						
i. Yes	26	106.30 ± 8.33	0.94	34	108.23 ± 10.09	0.75
ii. No	174	106.49 ± 12.53		226	108.89 ± 11.82	
If yes, how many times attended any ISE program on self-compassion/EI						
i. One	20	105.33 ± 8.34	0.29	25	107.6 ± 9.40	0.54
ii. two	6	109.5 ± 8.16		9	110 ± 12.24	
When was last ISE program attended						
i. < 1 year back	10	104.4 ± 5.68	0.36	17	106.94 ± 10.7	0.46
ii. > 1 year back	16	107.5 ± 9.61		17	109.52 ± 9.54	
Professional qualification						
i. GNM	97	105.19 ± 13.14	0.57	122	110.64 ± 11.36	0.63
ii. B.Sc. Nursing	48	106.14 ± 12.54		59	108.65 ± 11.05	
iii. Post Basic B.Sc. Nursing	55	107.33 ± 12.04		79	110.98 ± 11.74	
Working department						
i. Medical ward	40	106.24 ± 11.58	0.22	48	106.28 ± 11.24	0.16
ii. Surgical ward	58	106.35 ± 11.78		75	109.63 ± 11.35	
iii. Others	102	106.22 ± 11.14		137	106.25 ± 11.14	
Experience (in years)						
i. <1 to 3 years	154	106.55 ± 11.33	0.36	196	108.55 ± 11.34	0.48
ii. 4-6 years	40	107.24 ± 11.08		55	108.77 ± 11.23	
iii. 7-9 years	6	105.68 ± 13.33		9	108.14 ± 11.07	
Monthly family income (rupees)						
i. 10000-20000	43	106.69 ± 12.33	0.41	47	109.23 ± 10.27	0.26
ii. 20000-30000	112	105.40 ± 11.25		145	108.11 ± 12.37	
iii. >30000	45	109.55 ± 11.35		68	109.24 ± 10.33	

Table 18: Association of patient satisfaction score with the demographic variables of patients

Variable	SGRD Hospital			Rajindra Hospital		
	<i>f</i>	Mean ± SD	<i>p</i> value	<i>f</i>	Mean ± SD	<i>p</i> value
Gender						
i. Male	113	88.48 ± 8.35	0.77	153	89.77 ± 7.35	0.69
ii. Female	87	88.82 ± 8.44		107	90.14 ± 8.03	
Residence						
i. Urban	85	88.55 ± 8.29	0.02	150	89.52 ± 7.69	0.03
ii. Rural	115	88.69 ± 8.47		110	90.49 ± 7.67	
Occupation						
i. Govt. job/retired	16	90.31 ± 6.98	0.04	23	88 ± 5.81	0.03
ii. Others	184	88.48 ± 8.48		237	90.11 ± 7.76	
Age in years						
i. 20-25	89	87.28 ± 7.21	0.63	123	88.18 ± 8.11	0.58
ii. 26-30	71	88.69 ± 8.78		81	88.87 ± 7.23	
iii. >30	40	88.31 ± 8.58		56	88.16 ± 8.23	
Education						
i. Metric	38	88.41 ± 8.15	0.43	63	88.74 ± 8.56	0.037
ii. Higher secondary	39	88.58 ± 8.98		47	88.81 ± 8.67	
iii. Graduation and above	123	88.27 ± 8.63		150	88.46 ± 8.64	
Number of times admitted in hospital						
i. Once	76	90.24 ± 6.36	0.26	87	90.58 ± 7.25	0.029
ii. Twice	64	88.18 ± 8.68		83	88.78 ± 8.15	
iii. > twice	60	90.36 ± 6.91		90	89.76 ± 6.58	
Working department						
i. Medical ward	40	91.44 ± 8.65	0.37	48	91.14 ± 8.74	0.44
ii. Surgical ward	58	86.62 ± 8.34		75	86.04 ± 8.31	
iii. Others	102	89.24 ± 7.87		137	89.49 ± 7.06	

Table 19: Association of service quality score with the demographic variables of patients

Variable	SGRD Hospital				Rajindra Hospital			
	Expectation		Perception		Expectation		Perception	
	Mean ± SD	p value	Mean ± SD	p value	Mean ± SD	p value	Mean ± SD	p value
Gender								
i. Male	5.07 ± .43	0.24	4.72 ± 0.62	0.68	5.04 ± .43	0.55	4.62 ± .66	0.90
ii. Female	5.01 ± .42		4.76 ± 0.66		5.22 ± .41		4.66 ± .58	
Residence								
i. Urban	5.02 ± .43	0.04	4.69 ± .59	0.03	5.04 ± .44	0.04	4.62 ± .63	0.02
ii. Rural	5.06 ± .41		4.77 ± .67		5.01 ± .40		4.63 ± .36	
Occupation								
i. Govt. job/retired	4.88 ± .27	0.12	4.69 ± .57	0.34	5.05 ± .42	0.79	4.71 ± .41	0.53
ii. Others	5.06 ± .44		4.75 ± .65		5.03 ± .43		4.62 ± .36	
Age in years								
i. 20-25	5.07 ± .43	0.24	4.72 ± 0.62	0.68	5.04 ± .43	0.55	4.62 ± .66	0.90
ii. 26-30	5.01 ± .42		4.76 ± 0.66		5.22 ± .41		4.66 ± .58	
iii. >30	5.01 ± .42		4.76 ± 0.66		5.14 ± .35		4.37 ± .75	
Education								
i. Metric	5.02 ± .43	0.46	4.69 ± .59	0.33	5.04 ± .44	0.59	4.62 ± .63	0.97
ii. Higher secondary	5.06 ± .41		4.77 ± .67		5.01 ± .40		4.63 ± .36	
iii. Graduation and above	5.08 ± .44		4.73 ± .52		5.07 ± .39		4.51 ± .38	
Number of times admitted in hospital								
i. Once	4.88 ± .27	0.12	4.69 ± .57	0.34	5.05 ± .42	0.79	4.71 ± .41	0.53
ii. Twice	5.06 ± .44		4.75 ± .65		5.03 ± .43		4.62 ± .36	
iii. > twice	5.11 ± .39		4.37 ± .26		5.07 ± .39		4.43 ± .24	
Working department								
i. Medical ward	5.73 ± .38	0.36	4.37 ± .62	0.19	5.31 ± .48	0.68	4.63 ± .47	0.44
ii. Surgical ward	5.28 ± .29		4.52 ± .28		5.08 ± .59		4.39 ± .65	
iii. Others	5.34 ± .67		4.19 ± .37		5.13 ± .11		4.22 ± .48	
