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Role of the Medical Practitioner's Emotional Intelligence on Patient Satisfaction

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Abstract

Physician-patient communication skills linked to improved patient satisfaction. More emotionally intelligent persons might succeed at communicating in pleasing ways. Physician's communication skills are potentially valuable assets to improve quality of care. This study examined the relationship between physician's emotional intelligence (EI) and patient satisfaction. The sample comprised physicians of different specialisations and their patients. EI was measured using Genos Emotional Intelligence Inventory. Patient satisfaction was assessed by Patient Satisfaction Questionnaire-III. The Karl Pearson's coefficient of correlation resulted positive and significant association between EI and patient satisfaction. Moreover, EI scores of a physician showed strong positive associations with communication subscales of patient satisfaction. Linear regression analysis showed EI is a significant predictor of patient satisfaction. ANOVA results depicted that physician's EI changes across age and experience and also patient satisfaction changes across gender, age, follow-up visit, education, and marital status. It has implications for physicians that improved EI abilities contribute to increased communication quality. Increased communication skills act as a better predictor of patient's needs that ultimately contribute to satisfy the patient. Physician's EI abilities are strengthened through training programs on EI, which are necessarily effective in the workplace.

Keyword: Emotional Intelligence, Communication Quality, Interpersonal Aspect And Patient Satisfaction

Introduction

Emotionally intelligent individuals perceive their own and other's emotions accurately, use integrated and refined approaches, regulate them to progress and en route to attain the key objective (Salovey & Mayer, 1990). For star performers in all jobs in every field, emotional competence is twice as important as purely cognitive abilities (Goleman, 1998). Physician's attitude and demeanor have a propensity to the greatest extent on patient satisfaction. Patients expect their physician's exhibit behaviours like concern, competence, congenial, communicative with them, courteous and civil. Customer satisfaction and retention are achieved via incorporation of admiring behavioural factors by a physician (Kathryn Frazer Winsted, 2000).

The patient satisfaction was affected by fulfilling patient's requests, helping them, adopting courteous behaviour, and transmitting trust and confidence. Satisfaction is a crucial importance in attracting and retaining patients for reuse of services, and it continues to recommend services to family members and friends (Amira Elleuch, 2008). Wagner, Moseley, Grant, Gore, and Owens (2002) were the first to examine the association of physician's EI and patient satisfaction; they found only one subscale of EI that is happiness connected to patient satisfaction. Increased satisfaction with healthcare accomplished by way of patient-physician relationship and patient-physician relationship surpass through physician's own happiness. Freshman and Rubino's (2002) review substantiated with evidence showing that EI abilities of healthcare leaders increase the level of confidence to face the uncertainties and strengthen the organisation to adapt in the unstable world. Attention to feelings, empathetic concern, and perspective taking connected with communication skills and those transform into patient care in the midst of emotionally responsive and clinically resonance (Stratton, Elam, Murphy-Spencer, & Quinlivan, 2005). Individuals with high levels of EI, articulate the capacity to recognise, express, manage , and control emotions for winning performance in their job (Oginska-Bulik, 2005). EI measurement may subsist and remarkable during selection of medical school applicants (Wagner, 2006).

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EI determines patient-centered care and further researches might see the sights and appropriateness in managing emotions and its impact on health care (Birks & Watt, 2007). EI encompasses competencies like interpersonal and communication skills possible to deepen indulgent with physicians and coach in the direction to produce caring environment. EI has the prospective ability to instruct excellent physicians (Grewal & Davidson, 2008). Higher EI groups were considerably more cohesive than lower EI groups. Emotion regulation enhances team performance and health care quality (Quoidbach & Hansenne., 2009). Medical students with a higher traits EI performed operative tasks. They were sensitive to unfamiliar tasks and cope-up without delay from stressful simulated surgical experience than their peers with a lower traits EI during the performance of surgical tasks. The medical students with higher EI handled stressful circumstances and contributed to meet optimal performance in surgery (Arora, Ashrafian, Davis, Athanasiou, Darzi, & Sevdalis, 2011). The survey, conducted in healthcare environment suggests that further study should focus on the impact of health care provider emotional abilities on health care outcome (Wagner, Moseley, Grant, Gore, & Owens, 2002; Freshman & Rubino, 2002; Stratton *et al*., 2005; Birk & Watt, 2007; Weng et al., 2011). Therefore, the purpose of the present study was to examine the association between physician's emotional intelligence and patient satisfaction. It also aimed to investigate a correlation between the dimensions of EI and dimensions of patient satisfaction. Another connected objective was to measure the predictive ability of EI and its dimensions. It was also proposed to examine the significant differences in dimensions of EI across gender, age, education, experience, and specialisation. In addition to examine significant differences in patient satisfaction subscales across gender, age, education, follow-up visit, and marital status.

EI and Patient Satisfaction

Wagner *et al*. (2002) were the first to investigate the relationship between physician's EI and patient satisfaction. They found only one subscale of Baron EI that was happiness linked to patient satisfaction. Stratton *et al*. (2005) examined the relationship between EI and clinical skills, empathy. They suggested that understanding the significance of non-cognitive capacity turn into patient care that is both clinically sounded and emotionally responsive. Oginska-Bulik (2005) explored the relationship between EI and perceived stress in the workplace and health-related consequences in human service workers. They found increased EI skills required for winning job performance and assist workers to deal well with their feelings and thus directly decrease the level of job stress and indirectly protect their health. Birk and Watt (2007) during their review study highlighted EI might be advantageous in enhancing the facility of patient-centered care both directly and indirectly. They suggested investigating individual differences in managing emotions and its impact on healthcare. Grewal and Davidson's (2008) review study suggested EI is a concept worth examining in medical education that may build better learning, working and caring environment. Weng *et al*. (2007, 2008, 2011a and 2011b) conducted four studies in healthcare regarding physician's EI and its association with patient-physician relationship and patient satisfaction. The study found a significant association between physicians's EI, patient trust, patient-physician relationship and patient satisfaction using external rating sources for the physician. During this study, the researchers observed significant correlation between doctors EI (assessed from nursing director rating), patient trust, the patient-doctor relationship (Weng *et al*., 2008). In another study, the researchers investigated the associations of surgeon's empathy with the patient-surgeon relationship, patient perceptions of their health and patient satisfaction before and after surgical procedures (Weng *et al*., 20011a). They found EI scores of surgeons, and their age had a significant positive effect on the patient, surgeon relationship and on patient satisfaction with their surgeons before surgery. The researchers found higher EI was significantly correlated with fewer burnout, less burn out was associated with a higher level of patient satisfaction (Weng *et al*., 20011b). EI acted as a brand name in appreciating the doctor work related matters.

Conceptual Framework of the Study

Salovey and Mayer (1990) were the first to define EI "as the subset of social intelligence that involves the ability to monitor one's own and other's feelings and emotions to be discriminate among them and to use this information to guide, one's thinking and actions." Different authors developed various models of EI (Mayer & Salovey, 1997; Bar-On, 1997; Goleman, 1995; Schutte, Malouff,

Hall, Haggerty, Cooper, Golden, & Dornheim, 1998; Wong & Law, 2002, Petrides, 2009; Gignac & Erekmans, 2010). These models are eulogistic with one another. The present study included seven dimensions; emotional self-awareness (ESA), emotional expression (EE), emotional awareness of others (EAO), emotional reasoning (ER), emotional self-management (ESM), emotional management of others (EMO), and emotional self-control (ESC). Patient satisfaction consists of seven dimensions named as general satisfaction (GSAT), technical quality (TECH), interpersonal care (INTER), communication (COMM), financial aspect (FINAN), time spent with the provider (TIME), and access/availability/convenience (AACs). The demographic variables, particularly gender, age, experience, education and physician specialisation in respect of physicians were included. Gender, age, education, marital status, and follow-up visit to a physician concerning to patients were considered.

Objectives of the Study

The objective of this study was to explore the relationship between physician's emotional intelligence and their patient satisfaction. Another related objective was to examine the impact of physician's emotional intelligence on patient satisfaction. It was also proposed to examine the differences in dimensions of emotional intelligence across age, gender, and experiencevaries. In addition, it was proposed to examine the differences in dimensions of patient satisfaction across age, gender and follow-up visit varies.

Research Questions

Research Question 1: What is the degree of relationship between physician's emotional intelligence with patient satisfaction?

Research Question 2: What is the strength of association between physician's emotional intelligence with patient satisfaction?

Research Question 3: How would the perception of physicians differ across age, gender and experience with regard to dimensions of emotional intelligence?

Research Question 4: How does patient satisfaction differ across gender, age, education, and follow-up visit?

Method

Sample

The sample comprises 126 physicians of different specialisations and 378 patients from Solpaur (Maharashtra) and Kalburgi (Karnataka). The data were collected in participant's workplaces (hospitals) through prior appointment from a physician. The patient responses were taken after seeking permission from the physicians. Personal interview method was adopted for data collection based on convenient time span of a physician.

Instruments

Genos Emotional Intelligence Inventory (Genos EI) is a self assessment tool developed by Gilles E. Gignac (2010) which was employed to measure EI for several reasons: first, this measures relative frequency with which an individual demonstrated EI behaviour at a workplace. Second, the items included in the subscale are relevant within workplace environment. Third, it has been confirmed statistically in conjunction with extensive reliability and validity. Fourth, scale having an acceptable level of psychometric properties in several countries. Genos EI is a 70-items assessment and incorporates seven subscales each of which consists of 10 unique items. Out of 70-items 20 are negative sentences which need to be reverse scored. All items were scored on five-point Likert scale scale from almost never=1 to almost always=5. The paper-based format scale takes approximately 25 minutes to complete for individuals of age from 18-76. The patient satisfaction was measured with third-generation Patient Satisfaction Questionnaire (PSQ-_III) developed by Ware et al. (1983). It comprises seven subscales with 51-questions arranged in a random order that of a question-30 is not to be scored because it was related to beliefs about a crisis in healthcare. The score ranges from strongly agree (1) to strongly disagree (5) on a five-point Likert scale. scale. The scoring is based on item's exhibit favourable and unfavourable opinion, in particular, to medical care. Twenty six precoded positive questions are to be recoded in reverse order. The scores vary from 50 to 250 and higher scores appears greater satisfaction with medical care. It exhibits relevance in measuring medical outcome, specifically communication

aspect, general satisfaction, time spent with provider and interpersonal care. It possessed good internal consistency reliability range from 0.77 to 0.89.

Statistical analysis

All analyses were carried out using SPSS version 20.0. The reliability estimations of scales were performed using Cronbach alpha internal consistency coefficients. Descriptive statistics were computed for demographic factors. To explore the relationship between EI and patient satisfaction calculated Karl Pearson's correlation coefficients. In addition, analysis of variance (ANOVA) was carried out to examine the significant differences in EI across age, gender length of service, education and physician's specialisation. The simple linear regression was performed to analyse the extent of effect of EI on patient satisfaction.

Table 1: Physician's Demographic Variable

Variable	*N*	*%*
Gender Male	78	61.9
Female	48	38.1
Mean age(years)	43.52	(SD)11.12
Mean experience	15.36	(SD)10.55
Education		
Mbbs	8	6.35
mbbs, md	38	30.16
mbbs, ms	21	16.67
mbbs, md or ms n added course	3	2.38
Bhms	5	3.97
Bams	11	8.73
Bds	12	9.52
bds, mds	4	3.17
mbbs, diploma	23	18.25
Bums	1	0.79
Specialisation of physicians		
general physician	27	21.43
general Surgeon	4	3.17
	1	0.79
Urologist	2	1.59
Gynaecologist	22	17.46
Gastroenterologist	2	1.59
Neurologist	2	1.59
Dentist	16	12.7
Orthopaedist	12	9.52
ENT specialist	6	4.76
Ophthalmologist	14	11.11
Dermatologist	4	3.17
Oncologist	1	0.79
Diabetologist	1	0.79
Others	13	10.25

Results

Scale reliability

The reliability computation was performed for both the scales. The scale reliabilities were Genos EI (cronbach alpha = 0. 897, n=126) and PSQ-III (cronbach alpha = 0. 882, n=378). Both scales showed adequate reliabilities and counterpart with the present environment. Hence, further statistical analyses were carried out after testing scale reliabilities.

Table 2: Demographics of Patients

Variable	*N*	*%*
Gender Male	183	48.4
Female	195	51.6
Mean age(years)	36.16	(SD)14.09
Education		
Uneducated	30	7.9
SSC	132	34.9
HSC	89	23.5
Graduation	85	22.5
Post-graduation	42	11.1
Marital status		
Married	290	76.7
Unmarried	88	23.3
Follow-up visits 3	184	48.7
4	88	23.3
5	29	7.7
6 and >	77	20.4

Table 1 represents the demographics of physicians. 78 males (61.9%) and 48 females (38.1%) physicians provided responses to the Genos EI. The mean age of physicians was 43.52 years with standard deviation of

Table 3: Correlation between EI, EI Dimensions and Patient Satisfaction, Patient Satisfaction Subscales

EI\PS	*GSAT*	*TECH*	*INTER*	*COMM*	*FINAN*	*TIME*	*AAC's*
ESA	.367**	.347**		.531**	.381**	.342**	.399**
EE	.391**	.480**		.569**	.412**	.349**	.480**
EAO	.380**	.332**		.596**			.305**
ER	.394**	.452**	.358**	.479**	.340**	.311**	.436**
ESM				.519**			.323**
EMO	.343**	.427**		.663**	.351**	.336**	.429**
ESC				.480**			
EI	.440**	.485**		.733**	.416**	.355**	.493**

*Correlation is significant at the 0.05 level (2-tailed)
**Correlation is significant at the 0.01 level (2-tailed)
Note: n=126, ESA=emotional self-awareness, EE=emotional expression, EAO=emotional awareness of others, ER=emotional reasoning, ESM=emotional self-management, EMO=emotional management of others, ESC=emotional self-control, EI=emotional intelligence, GSAT=general satisfaction, TECH=technical quality, INTER=interpersonal care, COMM=communication, FINAN=financial aspect, TIME=time spent with provider, AACs=access/availability/convinience.

11.12. The average experience since physicians obtained the doctor of medicine degree was 15.36, and the standard deviation is 10.55. 62 physicians possessed post graduation in medical education (MBBS, MD=30.16%, MBBS MS=16.67%, MBBS, MD or MS and additional qualification= 2.38), 23 physicians were completed MBBS and Diploma in different specialisations (18.25%) and eight physicians (6.35%) of the physicians completed only MBBS qualification. 16 dentists (12.69%) were participating in a study (BDS=12 and BDS, MDS=4). The very small percentage of samples (13.49%) had qualifications like BHMS, BAMS AND BUMS, which are private practitioners.

16 specialist physicians were included and the number of doctors from each specialty ranged from 1 to 27. The maximum percentages of general physicians (21.43%) were participating, in addition to that gynecologist (17.46%), dentist (12.7%), ophthalmologist (11.11%), orthopedist (9.52%) and ENT specialist (4.76%). Both general surgeon and dermatologist (3.17%) had an equal percentage of participation. Neurologists (1.59) were about the same sample size. Only one respondent physician from the cardiologist, oncologist, and diabetologist specialisation took part. General physicians of ayurvedic and homeopathy (10.25%) were contributed. Patient demographics are shown in Table 2. Three patients of all physicians were taken on account and in all 378 patients were involved in the study. The averages were calculated for three patients of every physician, and further statistical calculations were performed. Approximately similar number of gender (183 males and 195 females) participated. The mean age of patients was 36.16 years with standard deviation 14.09. The majority of patients (92.1%) were educated, and only 7.9% were uneducated and questions were asked personally to the uneducated patients. 290 patients (76.7%) were married, and 88 were unmarried (23.3%). The patients visited minimum three times to the same physician was engaged, and 77 patients (20.4%) had six or more than six visits to the same physician.

Research Question 1: What is the degree of relationship between physician's emotional intelligence with patient satisfaction?

Table 3 depicts the inter-correlations between EI dimensions and association with dimensions of patient satisfaction. The results showed that strong positive and significant correlation between Geno's totals EI scores with dimension scores: emotional self-awareness ($r= 0.783$, $p<0.01$), emotional expression ($r=0. 739$, $p<0.01$), emotional awareness of others ($r= 0.761$, $p<0.01$), emotional reasoning ($r=0.664$, $p<0.01$), emotional management of self ($r= 0.766$, $p<0.01$), emotional management of others ($r= 0.819$, $p<0.01$), and emotional self-control ($r= 0.736$, $p<0.01$). The total EI scores showed a significant positive association with dimensions of patient satisfaction: general satisfaction ($r= 0.44$, $p<0.01$), technical quality ($r= 0.485$, $p<0.01$), interpersonal care ($r= 0.288$, $p<0.01$), communication ($r= 0.733$, $p<0.01$), financial aspect ($r= 0.416$, $p<0.01$), time spent with the provider ($r= 0.355$, $p<0.01$), access/availability/convenience ($r= 0.493$, $p<0.01$).

The communication subscale showed a strong positive correlation with total EI (r=0. 733, p<0.001) and moreover, it resulted moderate correlations with dimensions of EI. The correlation results of communication subscale with dimensions of Genos EI: emotional self-awareness (r= 0.531, p<0.01); emotional expression (r=0. 569, p<0.01); emotional awareness of others (r= 0.596, p<0.01); emotional reasoning (r=0. 479, p<0.01); emotional management of self (r=0. 519, p<0.01); emotional management of others (r= 0.663, p<0.01); and emotional self-control (r= 0.48, p<0.01). PSQ-III showed a positive and significant association between subscales of patient satisfaction. whereas two dimensions of EI, specifically emotional awareness of others and emotional self-control did not show significant relation with two subscales of patient satisfaction, interpersonal care and time.

Research Question 2: What is the strength of association between physician's emotional intelligence with patient satisfaction?

Stepwise linear regression has been carried out to examine the amount of contributions from the dimensions of EI and total EI to subscales of patient satisfaction. Table 4 to Table 10 summarize an involvement of EI dimensions and total EI in predicting subscales of patient satisfaction. Table 4 describes that emotional self-awareness contributes 13.5%, emotional expression 15.3%, emotional awareness of others 14.4%, emotional reasoning 15.5%, emotional self-management 7.5%, emotional management of others 11.8%, emotional self-control 4%, and total emotional intelligence 19.4% towards the variety of general satisfaction.

Table 5 describes the regression analysis for technical quality. It was found that emotional self-awareness contributed 12%, emotional expression 23%, emotional awareness of others 11%, emotional reasoning 20.4%, emotional self-management, 8.2%, emotional management of others 18.3%, emotional self-control 6.6%, and total EI 23.6% of the technical quality. Table 6 depicts the regression results for interpersonal care It has established that emotional self-awareness contributed 7.5%, emotional expression 4.1%, emotional reasoning 12.8%, emotional self-management 4.7%, emotional management of others 5.7%, and total EI 8.3% of interpersonal care.

Table 7 describes regression calculations for communication. On the communication subscale the circumstances are a bit favourable and predicting ability is higher. It was found that emotional self-awareness contributed 28.2%, emotional expression 32.4%, emotional awareness of others 35.5%, emotional reasoning 23%, emotional self-management, 26.9%, emotional management of others 44%, emotional self-control 23% and total EI 53.7% of communication. Table 8 represents regression results for the financial aspect. Results showed that emotional self-awareness contributed 14.5%, emotional expression 16.9%, emotional awareness of others 7.7%, emotional reasoning 11.6%, emotional self-management 5%, emotional management of others 12.4%, emotional self-control 5.2%, and total EI 17.3% to the financial aspect.

Table 9 describes regression computations for time spent with the physician. It revealed that emotional self-awareness contributed 11.7%, emotional expression 12.2%, emotional reasoning 9.7%, emotional self-management 7.6%, emotional management of others 11.3%, and total EI 12.6% of time spent with the physician. Table 10 depicts a regression analysis for access/ availability/convenience subscale. It was found that emotional self-awareness contributed 15.9%, emotional expression 23%, emotional awareness of others 9.3%, emotional reasoning 19.1%, emotional self-management 10.4%, emotional self-control 7%, and total EI 24.3% to access/availability/convenience.

Research Question 3: How the perception of physicians would differ across age, gender, and experience with regard to dimensions of emotional intelligence?

ANOVA results for total EI and its dimensions found that total EI (F=2.507, p<0.05) and three dimensions of EI showed significant difference across age. The emotional expression (F=2. 664, p<0.05), emotional reasoning (F=3.994, p<0.01) and emotional self-control (F=2.585), p<0.05) were differed across age. ANOVA results of physician's EI and dimensions found that only one subscale of EI that is emotional reasoning showed significant differences across experience (F= 4.051, p<0.01).

Research Question 4: How does patient satisfaction differ across gender, age, education, and follow-up visit?

The ANOVA result revealed that two subscales of patient satisfaction named as technical quality (F = 4.394, p < 0.05) and communication (F = 4.925, p < 0.05) differed across gender. It was found that three subscales of patient satisfaction; general satisfaction (F=3, p<0.01), technical quality (F=3. 59, p < 0.01) and communication (F=3. 075, p < 0.01) were differed across age. The ANOVA revealed that three subscales of patient satisfaction; interpersonal care (F=2.417, p<0.05), communication (F=2.827, p < 0.05), and availability/access/conveniences (F=3. 435, p < 0.01) showed significant differences in education. The ANOVA results of patient satisfaction across marital status results showed that only one subscale of patient satisfaction; time (F = 4.967, p < 0.05) had significant differences with the marital status of patients. ANOVA results described the significant differences in the subscales of patient satisfaction across follow-up visit. It is same like marital status; single subscale of patient satisfaction that was time (F = 3. 76, p < 0.01) had significant differences in a follow-up visit of a patient.

Table 4: Regression for General Satisfaction

Predictors	R^2	*adjusted* R^2	*B*	*F*
ESA	0.135	0.128	0.367	19.337
EE	0.153	0.146	0.391	22.369
EAO	0.144	0.138	0.380	20.934
ER	0.155	0.148	0.394	22.730
ESM	0.075	0.068	0.274	10.057
EMO	0.118	0.111	0.343	16.531
ESC	0.040	0.032	0.199	5.100
EI	0.194	0.187	0.440	29.794

Table 5: Regression for Technical Quality

Predictors	R^2	*adjusted* R^2	*B*	*F*
ESA	0.120	0.113	0.347	16.950
EE	0.230	0.224	0.480	37.099
EAO	0.110	0.103	0.332	15.378
ER	0.204	0.198	0.452	31.793
ESM	0.082	0.075	0.286	11.064
EMO	0.183	0.176	0.427	27.713
ESC	0.066	.059	0.257	8.785
EI	0.236	0.229	0.485	38.220

Table 6: Regression for Interpersonal Care

Predictors	R^2	*adjusted* R^2	*B*	*F*
ESA	0.075	0.068	0.275	10.124
EE	0.041	0.034	0.203	5.356
ER	0.128	0.121	0.358	18.195
ESM	0.047	0.039	0.217	6.118
EMO	0.057	0.050	0.239	7.544
EI	0.083	0.076	0.288	11.231

Table 7: Regression for Communication

Predictors	R^2	*adjusted* R^2	*B*	*F*
ESA	0.282	0.277	0.531	48.818
EE	0.324	0.319	0.569	59.442
EAO	0.355	0.350	0.596	68.345
ER	0.230	0.224	0.479	36.981
ESM	0.269	0.264	0.519	45.723
EMO	0.440	0.435	0.663	97.263
ESC	0.230	0.224	0.480	37.138
EI	0.537	0.533	0.733	143.578

Table 8: Regression for Financial Aspect

Predictors	R^2	*adjusted* R^2	*B*	*F*
ESA	0.145	0.139	0.381	21.109
EE	0.169	0.163	0.412	25.283
EAO	0.077	0.069	0.277	10.277
ER	0.116	0.109	0.340	16.231
ESM	0.050	0.042	0.223	6.496
EMO	0.124	0.116	0.351	17.472
ESC	0.052	0.044	0.228	6.784
EI	0.173	0.166	0.416	25.878

Table 9: Regression for Time Spent with Physician

Predictors	R^2	*adjusted* R^2	*B*	*F*
ESA	0.117	0.110	0.342	16.473
EE	0.122	0.115	0.349	17.251
ER	0.097	0.089	0.311	13.249
ESM	0.076	0.068	0.275	10.130
EMO	0.113	0.106	0.336	15.819
EI	0.126	0.119	0.355	17.891

Table 10: Regression for Access/Availability/ Convenience

Predictors	R^2	*adjusted* R^2	*B*	*F*
ESA	0.159	0.152	0.399	23.462
EE	0.230	0.224	0.480	37.085
EAO	0.093	0.086	0.305	12.748
ER	0.191	0.184	0.436	29.184
ESM	0.104	0.097	0.323	14.399
EMO	0.184	0.178	0.429	27.978
ESC	0.070	0.062	0.264	9.284
EI	0.243	0.237	0.493	39.789

Discussion and Conclusion

This study aimed to identify relationships between physician's EI and patient satisfaction, and the major findings of present study supported the raised research questions. Total EI scores showed positive and significant association with all the subscales of patient satisfaction. Moreover, total EI of physicians had a strong positive correlation with communication subscale of patient satisfaction. Physicians with high EI are superior in communicating with their patients. Communication skills are reminiscent in explaining the reason for tests and meaning of medical terms, telling everything that's important for the patient, listening carefully to patients.

Genos EI encompasses a diverse variety of EI behaviours relevant to the identification of emotions of self and others, reasoning with emotions, emotional management of self and others, and even emotional self-control. This scale emphasizes as a suitable measurement tool to assess the patient needs and expectations towards the physician. The previous study found a limited association between physician's self-rated EI with patient satisfaction. Wagner *et al*. (2002) found that one subscale of EI happiness was related to patient satisfaction. Other studies carried out in the health care environment by Weng *et al*., (2007, 2008, 2011a and 2011b) found a positive association in physician's EI and patient satisfaction using external rating sources for the physician and there was no association between physician's self-rated EI and patient satisfaction.

This study implicates that EI abilities enhance a communication ability of a physician with their patients. Total EI is the most imperative in communicating with patients and understanding the important factors leading to satisfaction. One interesting finding in the present study is that EI and its dimensions showed limited association with interpersonal care subscale of patient satisfaction compared with communication subscale. This indicates that physician's communication with the patient is more essential in understanding patient's expectations than that of interpersonal care. It was found that a majority of dimensions of EI had a positive and significant association with subscales of patient satisfaction. It authenticates Genos EI dimension's and patient satisfaction subscales are inevitably extensive in measuring EI skills and patient satisfaction.

However, emotional awareness of others and emotional self-control did not show a significant association with interpersonal care and time subscales. It implicates that just perception of other's emotions and controlling self-emotions is not adequate in satisfying patients. Despite being aware of patient problem and facilitating the correct decision making, expressing emotions to patient, concern in managing patient emotions is practically crucial in satisfaction of patients. Regression analysis results found that total EI predicted all the subscales of patient satisfaction and the greatest extent communication subscale of patient satisfaction.

All the dimensions of EI predicted the maximum number of subscales of patient satisfaction. Dimensions of EI are appropriate and applicable combinations, truly acting as predicting variables of the various subscales of patient satisfaction. Only two dimensions of EI emotional awareness of others and emotional self-control did not predict interpersonal care and time subscales of patient satisfaction. It implicates that physician's level of EI increases the abilities of perception and expression of emotions, understanding and managing emotions of self and others.

Furthermore, it also acts as a better indicator of increased communication abilities that finally contribute to patient satisfaction. ANOVA demonstrated significant differences between demographic variables of physician and patient. Specifically emotional reasoning differs with age and experience. Depending on changes in age and experience of physicians, he considers emotionally relevant information and balances between self and other's emotions while problem solving or decision making in the health care environment.

In addition, total EI, emotional expression and emotional self-control were differing across physician's

age. Physician's EI dimensions resulted significant differences across age and experience. It indicates that EI abilities changes with age and experiences. It confirms with previous studies (Wong *et al*., 2007; 2008). EI scores change across age was supported from Pau, Rowland, Naidoo, Kadir, Makrynika, Moraru, Huang, and Croucher (2007). Physician's EI did not differ across gender, physician specialisation, and education. It was found that the patient satisfaction subscales scores were differing across gender, age, education, marital status, and follow-up visit. The communication subscale of patient satisfaction differed by gender, age, and education of patients. It was supported from Grogan *et al*. (1995) and Myles *et al*., (2000) that patient satisfaction differs with gender and age. Subscales of patient satisfaction include technical quality and communication across gender; general satisfaction, technical quality and communication across age, interpersonal care, communication and availability/access/convenience across education and time across marital status and follow-up visit.

The present study is limited by a process of data collection. Samples were chosen based on convenience and willingness of physicians. Physicians' willingness was interested in knowing the relevance and applicability of EI in healthcare. Obviously, they are good in EI abilities, and as well they communicate and respond according to the patient's needs. Some physicians who have a very busy schedule, especially cardiologist, neurologist and urologist did not participate in the study. Limited numbers of physicians from above-mentioned specialisation have participated. On the questions "how do they communicate?" and "how much time they spend in communicating with patients?" we were unanswered. This study suggests that inclusion of maximum number of physicians from all the specialisation might indicate the requirement of EI skills in different specialisation which contribute to patient satisfaction.

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