



DEMOGRAPHIC VARIABLES – DO THEY HAVE AN IMPACT ON EMOTIONAL INTELLIGENCE

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ABSTRACT

This research paper is aimed to understand whether the demographic variables (such as age, educational qualification, marital status, family size, and type of hospital) of the individuals have an impact on Emotional Intelligence (EI). The research was conducted among woman physicians of Tirupur District for which data was collected through a well structured questionnaire using Census sampling technique. The sample size was 128 among which 39 were government physicians and 89 were private physicians. The analysis of the collected data was carried out using Percentage, Mean score analysis and ANOVA. The results explained that the physicians of private hospitals had slightly better levels of EI than government physicians. Higher age, better educational qualification and married respondents showed better EI levels.

Key Words : *emotional intelligence, demographic variables, women physicians, Tirupur*

Introduction

Individuals persistently look forward to be happy and successful, for which they have constantly been striving to innovate in different angles of thought in order to achieve it. The level of one's perception from various angles and cope up abilities during problems has an impact on the intensity of happiness and satisfaction in life. EI stands as a key element to contentment and eventually success. It is the skill of understanding the emotions of oneself and being able to value, act and react suitably to the emotions and the resultant behaviours of

other individuals, groups and the society at large. EI was defined by Salovey and Mayer (1990) as “a form of social intelligence that involves the ability to monitor one’s own and other’s feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions.” In simple words, EI can be explained as the combined effort of the brain and the conscience; where Intelligence is understood as the effort of the brain while emotions are the outcome of one’s conscience. It is believed that the mind may go wrong but the conscience will never make a mistake in handling delicate situations.

Women play a momentous role in the society, be it in their homes or outside. The contributions of working women make a significant impact on their confidence levels and also have a boost in the economy of the nation.

In India, women constituted 51% of the students joining medical colleges, filling up 23,522 seats in 2014-15 compared to 22,934 men (*Times of India*). However, there is a severe dearth of female physicians in India. According to a paper titled Human Resources for Health in India, published in 2011 (the medical journal Lancet), only 17% of all allopathic physicians and 6% of those in rural areas are women physicians. This means there was less than one female allopathic doctor per 10,000 people in rural areas (0.5), but, the ratio is 6.5 in urban areas. Thus this untapped potential of women, when channelised in a proper direction would pave way for a brilliant economic growth and health of the nation.

Health care profession is a hands-on job in which emergencies and pressures occur without warning at hospitals. Despite the female physician's decision to reduce her agenda of work, if she has to be successful, she has to put in extra efforts which may be difficult to deal with. EI is an attribute that helps these physicians to cope up in shouldering their dual responsibilities of both work and family.

Demographic attributes of a person such as age, educational qualification, work experience, marital status, family type, family size and so on may have an impact on the EI levels of people. This study aims at investigating if certain demographic attributes have an impact on EI.

Need for the Study

A women physician helps the society in many ways. Women physicians are known to be more polite and have more patience when compared to most of their male counterparts [Ferguson, et al., (2002), Kilminster, et al., (2007), Woolf, (2009)]. Women patients feel more comfortable to talk to lady physicians and children too always seem to enjoy treatment from them. Considering health care, physicians who are more talented in discovering

emotions, worries and the patient's requirements are more successful in giving treatment to them. Therefore, the interpersonal communication between both, the patient and the physician, stages a vital role in the patient outcomes. Considering this, Emotionally Intelligent physicians may be taken as a valuable resource for hospitals. Due to the tedious nature of the job, there are many women physicians who are unable to cope up with the dual responsibilities of taking care of their home and their profession as well. This leads to many of them giving up their profession. There is a serious need for increasing the number of practising women physicians. They may consider enhancing their EI skills and thus find cope up solutions to their problems. Through this, there may be a chance of increasing the number of practicing women physicians which would be extremely helpful for the society and the nation at large.

Objectives of the Study

1. To study the demographic profile of the respondents
2. To understand the level of Emotional Intelligence of the respondents
3. To examine whether the demographic variables have an impact on Emotional Intelligence of the respondents

Hypothesis Tested

- a. H₁ - Emotional Intelligence level in relation to age
- b. H₂ - Emotional Intelligence in relation to educational qualification
- c. H₃ - Emotional Intelligence in relation to type of hospital
- d. H₄ - Emotional Intelligence in relation to marital status
- e. H₅ - Emotional Intelligence in relation to size of family

Limitations of the Study

The study covered woman physicians of the Tirupur district only and the sample respondents were limited in number and the results of the study cannot be generalized for any other profession. The EI constructs were around certain key factors only and thus the results might be indicative in nature.

Methodology

Data for the study was collected with the help of a well structured questionnaire. The EI questions were set based on Hay Group's 10 situational based questions. Each question was followed by 5 answers for which marks were assigned [from 5 -highest to 1-lowest] with

the help of experienced psychologists and psychiatrists. The total marks that each respondent got for all the 10 answers were taken to indicate their EI level. ***Sampling Technique and sample size***: Census Sampling technique was used. The study aimed to target all the women physicians in Tirupur District. List of women physicians were obtained from Indian Medical Associations, Indian Dental Associations, Tirupur Government Hospital Headquarters and Directorate of Primary Health Centres, Tirupur. According to the lists obtained the population (number of women physicians) was 352. Questionnaires were distributed among all these women physicians either directly or through post, out of which 128 completely filled in questionnaires fit for analysis were received. Percentage analysis, Average Mean Scores and ANOVA methods were used to analyse the data.

Literature Review

Mondal, Paul & Bandyopadhyay (2012) analyzed the nature and extent of EI among secondary level schools teachers and revealed that few demographic factors positively impacted on the level of the teacher's EI.

Singh and Srivastava (2012) investigated age of managers and their effect on EI. He proved that age affected EI in groups of up to 30 and 50-60 years old people. Gaitniece- Putane (2006) used the MANOVA test and found that age, gender and its interaction together influenced EI, specifically in dimensions of empathy and social responsibility.

Martimes, Fernandez and Salovey (2006) surveyed Spanish students and found that females showed higher EI than males with aging, and that EI increased as well for both. Cumming (2005) explored the relation of EI with demographic factors and concluded that there existed no relation between demographic factors such as gender, age occupational groups, education and EI.

Wong (2002) attempted to study the relationship of EI with age and experience. The results showed that EI was significantly and positively related to demographic factors such as age and experience.

Analysis and Discussion

1. Demographic Profile of the Respondents

Table 1
Demographic profile of the respondents

Sl. No	Characteristics	No. of Respondents		Total
		Government	Private	
1	Type of Hospital	39 (30.5)	89 (69.5)	128
2	Age			
	1) 25 to 35	21 (53.8)	36 (40.5)	57 (44.5)
	2) 36 to 45	12 (30.8)	31 (34.8)	43 (33.6)
	3) 46 to 55	4 (10.3)	12 (13.5)	16 (12.5)
	4) 56 to 65	2 (5.1)	8 (9.0)	10 (7.8)
	5) Above 66	-	2 (2.2)	2 (1.6)
3	Educational Qualification			
	1) MBBS	15 (38.5)	36 (40.4)	51 (39.8)
	2) MBBS + Diploma	16 (41)	13 (14.7)	29 (22.7)
	3) MBBS + MD	6 (15.4)	16 (18)	22 (17.2)
	4) MBBS + MS	2 (5.1)	2 (2.2)	4 (3.1)
	5) BDS	-	18 (20.2)	18 (14.1)
	6) BDS + Diploma	-	4 (4.5)	4 (3.1)
4	Marital Status			
	1) Unmarried	5 (12.8)	11 (12.4)	16 (12.5)
	2) Married	33 (84.6)	76 (83.4)	109 (85.1)
	3) Divorcee	1 (2.6)	-	1 (0.8)
	4) Widow	-	2 (2.2)	2 (1.6)
5	Family Size			
	1) 2 Members	6 (15.4)	14 (15.7)	20 (15.6)
	2) 3 Members	12 (30.7)	26 (29.3)	38 (29.8)
	3) 4 Members	15 (38.5)	27 (30.3)	42 (32.8)
	4) 5 Members	5 (12.8)	14 (15.7)	19 (14.8)
	5) 6 Members or above	1 (2.6)	8 (9.0)	9 (7.0)

Source – Primary data; Numbers in parenthesis indicate percentage

Demographic Profile of the respondents can be explained from Table 1. 69.5% of the total respondents worked in private hospitals. 44.5 % of the respondents were between 25 to 35 years. 39.8% of them were MBBS graduates. 85.1% of them were married and 32.8% of the total respondents lived among a member family.

2. Analysing the Level of Emotional Intelligence

The EI construct consisted of situation based questions. Each question was framed so as to understand the level of one factor of EI. Each question was followed by 5 responses which were rated with scores of 1 to 5 and were listed randomly (5 points was given to the best Emotionally Intelligent answer and 1 to the least). The scores were not marked on the questionnaire. The respondents were asked to put themselves in the particular imaginary

situation and choose one among the five given answers that would best suit their reaction. The chosen responses were then used to analyse the EI levels of the respondents as below.

2.1 Total Emotional Intelligence Level of the Respondents - Percentage

The total EI score of the respondents was calculated by summing up the scores of all the ten statements put together. Based on the total score the respondents were divided into three categories, i.e., low, moderate and high. Total scores from 5 to 20 were marked as low EI, scores between 21 and 35 were marked as moderate EI and 36 to 50 were marked as high EI which are represented in the table 2.

Table 2
Total Emotional Intelligence level of the respondents

Level of EI	No. of Respondents		
	Government Physicians	Private Physicians	Total
Moderate EI	23 (58.9)	48 (53.9)	71 (55.5)
High EI	16 (41.1)	41 (46.1)	57 (44.5)
Total	39 (100)	89 (100)	128 (100)

Source: Primary data Numbers in parenthesis indicate percentage

Among the respondents 55.5 percent of the sample physicians showed a moderate level of EI and 44.5 percent of them were observed with a high level of EI. The findings are in slight contrast with the results of Manoharan (2015). None of the respondents fell in the low EI category.

2.2 Mean Score Analysis – Emotional Intelligence Factors

Mean scores were derived for the EI factors and ranks were assigned based on the average mean score of all the statements for each EI factor individually which are as represented in table 3.

Table 3**Mean score analysis - Emotional Intelligence factors**

Type of hospital Variable	Government		Private	
	Mean Score	Rank	Mean score	Rank
Self control	3.6	4.5	4.0	1
Emotional awareness	3.4	6	3.1	8.5
Optimism	3.8	2	3.5	5
Adaptability	3.1	9.5	3.1	8.5
Influence	3.2	7.5	3.3	6
Communication	3.6	4.5	4.0	1
Conflict mgmt	3.1	9.5	3.2	7
Team capability	3.7	3	3.7	4
Mentoring	4.2	1	4.0	1
Initiative	3.2	7.5	3.0	10
Average Mean score	3.5		3.5	

Source: Primary data through field survey

The average mean score for the EI factors among government physicians as well as private physicians was calculated to be 3.5

Based on the average mean score, the government physicians were strong in mentoring as its mean score was 4.2 which was high above the average mean score. Next came optimism with 3.8 as its mean score, Team capability had a mean score of 3.7, self control and communication had 3.6 proving that the government physicians were good in these factors also. They had to improve slightly in Emotional awareness which scored 3.4. Factors like influence and initiative were calculated to be 3.2 whereas adaptability and conflict management were 3.1 showing that these qualities were not strong among the government physicians as the scores for these items were less than the average means score of 3.5.

On the basis of the calculated average mean score (3.5), it could be understood that the private physicians were strong in self control, communication, and mentoring (as their mean score was calculated to be 4). They had good skills of team capability with 3.7 as its mean score and optimism (3.5) which was exactly the same as the average mean score. Influence and conflict management abilities came next with a score of 3.3 and 3.2 respectively, while, emotional awareness and adaptability had mean scores of 3.1. Initiative had the least score of 3 showing lower abilities of it. This indicates that the private physicians were lacking in Influencing skills, conflict management, emotional awareness, initiative and adaptability as their scores were less than the average mean score.

3. Impact of Demographic Variables on Emotional Intelligence - ANOVA

(i) H_1 - Emotional Intelligence level in relation to age

About 78 percent of respondents were concentrated among ages of less than 35 years (44.5%) and 36 & 45 years (33.6%). Therefore these categories of ages were chosen to judge as to whether there was a difference in EI levels. The results are explained in table 4.

H_0 : There is no positive relation between level of Emotional Intelligence and age group of the respondents

Table 4
Means, SD and F-ratio of subscales and Mean Scores of Emotional Intelligence in relation to Age

Age Group	Percentage of respondents	Means	Standard Deviation	F-statistics	Degrees of Freedom	Inference
Below 35 years	44.5	3.411	0.38158	7.633	1	Reject H_0 *
36 to 45 years	33.6	3.610	0.31298			

H_0 - Null Hypothesis ; *Significant at 5% level

Table 4 shows the mean scores (< 35 years = 3.411 and 36 to 45 years = 3.610) of the levels of EI of the respondents clearly shows an increase in the mean scores as it goes higher to the next level, which indicates that EI improves with increase in age of a person. This proves that, as a person grows older, his life experience that he gains would be richer, which in turn would help him handle situations better.

It was observed that the p value (0.007) was less than 0.05, and hence the null hypothesis proposed is rejected and hence proven that there is a positive relationship between EI with an increase in the age of the respondents. The results are in tune with that of the studies conducted by Hassan et al., (2011), Pooja et al., (2016), Jeya et al., (2012)

(ii) H_2 - Emotional Intelligence in relation to Educational Qualification

The study categorised the respondents into two – the ones with Post Graduate degree/diploma and the other with an Under Graduate degree.

To judge whether the respondents with a with Post Graduate degree/diploma such as MD, MS or Diploma, along with the MBBS/BDS had a difference in EI level when compared with the respondents who possessed an Under Graduate degree in medicine, ANOVA was applied. The results are explained in the table 5.

H_0 : There is no difference in the means of Emotional Intelligence levels across Post Graduate and Under Graduate physician groups

Table 5
Means, SDs and f-ratio of subscales and Mean Scores of Emotional Intelligence
in relation to educational qualification

Educational qualification	Percentage of respondents	Means	Standard Deviation	F-statistics	Degrees of Freedom	Inference
MBBS/BDS	53.9	3.413	0.354	5.111	1	Reject H_0^*
MBBS/BDS with MD/MS/Diploma	46.1	3.555	0.365			

H_0 - Null Hypothesis ; *Significant at 5% level

The table 5 explains that the mean value of EI of the Post Graduate physicians (3.555) was higher than that of the Under Graduate physicians (3.413). This explains that better educational qualifications lead to enhanced EI.

The p value (0.025) was less than 0.05, so the proposed Null hypothesis was rejected which proves that there is a significant increase in EI level among better qualified sample physicians. The results were similar to that of the studies conducted by Hassan et al., (2011) Pooja et al., (2016), Jeya et al., (2012).

(iii) H_3 - Emotional Intelligence in relation to type of hospital

Physicians working in Indian Government Hospitals would be facing patients who generally belonged to the lower economic strata, out of which some of them may be illiterates. These physicians may need to handle the problems of the patients in a totally different way when compared to others for which EI would be helpful.

To assess whether there was difference in the levels of EI among practitioners of the two different types of hospitals ANOVA was applied. The results are explained in table 6.

H_0 : There is no significant difference in the mean values of Emotional Intelligence among physicians of the two different types of hospitals.

Table 6

**Means, SDs and f-ratio of subscales and mean scores of Emotional Intelligence
in relation to type of hospital**

Type of hospital	Percentage of respondent	Means	Standard Deviation	F-statistics	Degrees of Freedom	Inference
Private	69.5	3.485	0.334	0.010	1	Accept H ₀
Government	30.5	3.492	0.421			

H₀ - Null Hypothesis

Table 6 explains that the mean values among the physicians across the Private (3.485) and Government Hospitals (3.492) were almost same and hence it is insignificant. The p value was 0.921. Therefore it can be understood that the type of hospital has no effect on the EI level of the respondents and thus the proposed null hypothesis was accepted. This explains that there was no significant difference in the level of EI among the respondents of the two different types of hospitals. The results were in tune with the studies of Shavita (2015) and Deeksha Sharma (2014) but were seen to be in contrast with the findings of Makkar (2015). Rekha Tomar's (2016) findings reported better EI levels among private physicians when compared to their government counterparts.

(iv) H₄ - Emotional Intelligence in relation to marital status

Married working women tend to have more responsibilities when compared to single working women. They have the necessity of shouldering the dual roles of both their homes and work places, the experiences of which should enable them to handle life situations in a better way. With this context, the researcher wanted to analyse whether married respondents had better levels of EI when compared to respondents living as singles. To judge the same ANOVA test was applied. The results are explained in table 7.

H₀: The mean of Emotional Intelligence is not greater for married women physicians than the physicians who are living as singles

Table 7

**Means, SDs and f-ratio of subscales and mean scores of Emotional Intelligence
in relation to marital status**

Marital Status	Percentage of respondents	Means	Standard Deviation	F-statistics	Degrees of Freedom	Inference
Married	85.1	3.525	0.349	8.281	1	Reject H ₀ *
Single	14.9	3.274	0.365			

H₀ - Null Hypothesis ; *Significant at 1% level

Table 7 depicts that there is significant variation in the levels of Means among the married respondents (3.525) and the solitary respondents (3.274). The p value (0.005) was less than 0.01 which proves that the proposed Null hypothesis could be rejected and hence the respondents who were married showed better levels of EI when compared to those who lived as singles. The results were in tune with the results of Mohammad et al., (2013).

(v) H₅ Emotional Intelligence in relation to size of family

People have varied natures. Even siblings of the same parents vary in their behaviours. When there are more number of people in a family, each member needs to have confrontations with more people with varied natures inside the family itself. This may lead to enhance the skills of understanding the behaviours of people to a better extent.

To judge whether there was difference in EI among respondents with the family size of less than 3 members and those living in families with more than 4 members, ANOVA was applied. The results are explained in table 8.

H₀: There is no positive relation between the family size and Emotional Intelligence level of the respondents

Table 8

**Means, SDs and f-ratio of subscales and mean scores of Emotional Intelligence
in relation to size of family**

Size of family	Percentage of respondents	Means	Standard Deviation	F-statistics	Degrees of Freedom	Inference
3 or lesser members	45.4	3.441	0.405	1.162	2	Accept H ₀
4 or more members	54.6	3.521	0.318			

H₀ - Null Hypothesis

The mean score (3.521) of EI of the respondents (table 8) whose family size was 4 or greater showed a small increase when compared to those living among a family size of 3 or lesser members (3.441). The p value (0.316) which is greater than 0.05, explains that the null hypothesis can be accepted and hence it can be understood that EI levels did not differ among respondents who lived in a bigger family. But as a little higher value was found in the means of the larger family group it could be understood that people living in larger families could have better EI. More elaborate studies in this area is suggested The findings were in contrast with that of Moranda (1999).

Findings of the Study

Percentage analysis

- 69.1% of the total respondents worked in private hospitals. 44.5 % of them belonged to the age between 25 and 35 years. 39.8% of them were MBBS graduates. 85.1% of them were married and 32.8% of the total respondents lived among a family consisting of 4 members.
- 44.5 percent of the total respondents showed high level of EI

Average Mean Scores

- The government physicians were strong in mentoring, optimism, team capability, self control and communication. The private physicians were strong in self control, communication, mentoring, team capability and optimism (in the order of their average mean scores)

ANOVA Results

- EI was found to increase with the age of the respondents
- A significant increase in EI level was found among better qualified sample physicians
- The type of hospital had no effect on the EI level of the respondents
- Married respondents showed better levels of EI when compared to those who lived as singles
- EI levels did not differ among respondents who lived in different family sizes.

Conclusion

From the study among 128 woman physicians, it was understood that the levels of EI varied to some extent between the respondents of the two different types of hospitals. EI increased with age and better qualifications. EI was also found to be better among married respondents.

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