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## Short Communication

# Comparing emotional intelligence between would-be and practicing medical professionals of Kathmandu

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## Abstract

**Background:** Emotional intelligence is the ability to know and manage emotions. In Nepal, studies about emotional intelligence have rarely been conducted among medical professionals.

**Methods:** A survey research was conducted using a convenient sample of 150 medical professionals including doctors, nurses, pharmacists, and lab technicians from six hospitals of Kathmandu. The Assessing Emotions Scale (AES) was used to measure the emotional intelligence of the participants.

**Results:** Practicing professionals ( $M=113.17$ ,  $SD=17.41$ ) and would-be (i.e. interns) professionals ( $M=124.55$ ,  $SD=6.41$ ) were compared,  $t(148)=-5.433$ ,  $p<0.05$ . There was a difference in emotional intelligence level between them.

**Conclusions:** Emotional intelligence is affected by gender, religion, and education of medical professionals. Practicing professionals are more emotionally intelligent than would-be professionals. Practicing professionals are similar to would-be professionals in terms of the perception of emotion but different in terms of emotion management, social skills, and utilization of emotions.

**Keywords:** emotions, hospitals, nurses, physicians, workplace

## Introduction

Emotional intelligence (EI) is the ability to know own and others' emotions, manage own emotions and motivate self, and also to behave others according to their emotional state. It is a set of skills that contribute to accurate appraisal and expression of emotions [1]. It also involves effective regulation of emotion in self and others. EI is helpful to use the feelings to motivate, plan, and achieve in one's life. EI has four components according to Mayer and Salovey – perceiving, using, understanding, and managing emotions [2]. Intuitively, it can be safely said that medical professionals need more EI at work who deal with patients, their caregivers, and relatives.

Patients can choose own doctors. They do not want those who are irritated or cold. So, doctors need to have compassion, empathy, patience, and regard for patients' feelings [3]. Health professionals can remain motivated if they are emotionally intelligent. They also can

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value human feelings. Emotionally intelligent medical professionals can help their organization's productivity growth. Emotionally intelligent people solve problems adaptively and quicker to adjust [1]. EI in medical students predicts their performance regarding communication and interpersonal sensitivity [4]. Doctors' EI has been seen to correlate to less burnout and more job satisfaction [5].

Emotionally intelligent nurses are self-compassionate [6] and they show higher organizational commitment [7] and work engagement [8]. Emotionally intelligent people see themselves as confident. Nurses in the intensive care unit who are trained EI have better health after training [9]. Among other medical professionals, emotionally intelligent pharmacists can have better patient compliance [10].

EI is gaining more popularity but it has not been researched in Nepal. How would EI be related to various factors like family size, income, and age? How is it affected by variables like family-type, religion, education, and ethnicity? Such research questions became an inspiration. This study has looked at the relationship between various demographic variables and EI among employees of hospitals. All those who work in the hospital have been considered medical professionals because more or less, everybody is related to patient and their conditions during their stay in hospital. Since EI has been thought very essential by now, the findings from this research can be helpful to gain insights and take practical decisions in hospital for recruitment to interventions.

#### Hypotheses

- Marital status affects EI.
- Family type affects EI.
- Gender affects EI.
- Age and EI are correlated.
- Income and EI are correlated.
- Family size and EI are correlated.
- Age and income are correlated.
- Religious affiliation affects EI.
- EI for would-be (studying) and practicing medical professionals is different.
- Technical and non-technical professionals are differently emotionally intelligent.
- Would-be and practicing professionals are differently emotionally intelligent.
- The educational level makes a difference in EI scores.
- Ethnicity makes difference in EI.
- Nature of job (or profession) has an effect on EI.

#### Methods

The survey research design was used. It was cross-sectional in that people from various genders, education levels, positions, and ethnicities were used. Schutte Self-Report Emotional Intelligence Test (SSEIT) was used. It consists of 33 items with 5th, 28th, and 33rd items reverse scored. Lately, SSEIT has been called Assessing Emotions Scale (AES) [11]. It measures four aspects - appraisal, expression, regulation, and utilization of emotions. Scores can range from 33 to 165.

Data were collected conveniently from six private and governmental hospitals of Kathmandu. As shown in Table 1, 10 were doctors, 73 were nurses, and some of them were non-technical staff of hospitals. The participants filled up the questionnaire at their workplace. The data were analyzed using IBM SPSS Statistics 25.

This study was conducted in accordance with the Declaration of Helsinki. Informed consent was obtained from all participants. Department of Psychology and Philosophy Ethics Committee in TriChandra Campus had approved the proposal for research.

#### Results

There were 40 married and 110 unmarried participants with mean EI of 116.65 (SD=19.64) and 113.97 (SD =15.71), respectively. Levene's test ( $F=0.211$ ,  $p=0.646$ ) established that there was equality of variances between these samples. T-test showed that there was no significant effect by marital status,  $t(148)=-0.777$ ,  $p>0.05$ . There were 39 participants from a nuclear family and 111 from a joint family with mean scores of 116.2 (SD=15.8) and 110 (SD=19), respectively. Levene's test established the equality of variances ( $F=0.826$ ,  $p=0.365$ ). There was no effect of family type in EI score,  $t(148)=-1.873$ ,  $p>0.05$ . There were 117 female and 33 male participants with mean EI scores of 116.11 (SD=15.32) and 109.64 (SD= 20.79). There was equality of variances ( $F=2.72$ ,  $p>0.05$ ). Gender had significant effect on EI,  $t(148)=-1.97$ ,  $p=0.05$ . Female's intelligence was significantly more than male's,  $t(148)=1.97$ ,  $p<0.05$ . This research also showed that a female was paid less than a male in the medical profession,  $t(126)=4.142$ ,  $p<0.05$ . There were 18 non-technical staff and 132 technical staff with mean EI scores of 114.06 (SD=16.23) and 119.28 (SD=20.53). Levene's test showed equality of variances ( $F=3.86$ ,  $p=0.051$ ). Being technical or non-technical also did not affect EI level,  $t(148)=-1.237$ ,  $p>0.05$ . Practicing professionals ( $M=113.17$ ,

SD=17.41) and would-be (i.e. interns) professionals ( $M=124.55$ ,  $SD=6.41$ ) was compared,  $t(148)=-5.433$ ,  $p<0.05$ . It means that there was a difference in EI between practicing and would-be medical professionals.

**Table 1.** Number of medical professionals based on profession

| Profession                                       | Number | Percentage |
|--------------------------------------------------|--------|------------|
| Doctors                                          | 10     | 6.71       |
| Nurses                                           | 73     | 48.99      |
| Lab Technicians                                  | 20     | 13.42      |
| Health Assistants                                | 12     | 8.05       |
| Non-technical staff                              | 19     | 12.75      |
| Pharmacists                                      | 7      | 4.70       |
| Others (like community medicine assistant (CMA)) | 8      | 5.37       |
| Total                                            | 149    | 100        |

Among the 149 participants who revealed their religion, 120 were Hindu, 18 were Buddhists, 8 were Christian, and 4 were Kirant. To see if religion affected EI, one-way ANOVA was carried out. From Table 2, it is seen that religion affects EI,  $F(3, 146)=2.76$ ,  $p<0.05$ . It means that four religious groups were significantly different in terms of EI as a whole.

Similarly, different educational level makes people differently emotionally intelligent as seen from one-way ANOVA,  $F(3,145)=3.175$ ,  $p<0.026$ . Among 148 participants who responded their educational levels, 4 professionals had SLC degree, 64 persons had high school degree or equivalent (like Proficiency Certificate Level), 72 persons had Bachelor's degree, and 9 medical professionals had Master's degree.

Likewise, ethnicity did not have a significant effect on EI as suggested by one-way ANOVA,  $F(4, 145)=0.449$ ,  $p>0.05$ . Among all, 149 revealed their ethnic identity. There were 31 Brahmin, 46 Chhetri, 31 Newar, 14 Magar, and 28 from other ethnic groups like Rai, Madhesi, and Tamang.

**Table 2.** One-way ANOVA for four religions and EI scores

|                | Sum of Squares | df  | Mean Square | F     | Sig.  |
|----------------|----------------|-----|-------------|-------|-------|
| Between Groups | 2261.237       | 3   | 753.746     | 2.759 | 0.044 |
| Within Groups  | 39885.036      | 146 | 273.185     |       |       |
| Total          | 42146.273      | 149 |             |       |       |

Profession (nature of a position), however, had an effect on people's EI,  $F(6, 142)=6.903$ ,  $p<0.05$ . Among 149 who answered their position, 10 were doctors, 73 were nurses, 20 were lab technicians, 19 were health assistants, 7 were pharmacists, 19 were non-technical (like administrative), and 6 were others like certified medical assistant (CMA).

The correlation between age and EI was insignificant,  $r(148)=-0.053$ ,  $p>0.05$ . The correlation between income and EI was insignificant,  $r(126)=0.04$ ,  $p>0.05$ . There was no correlation between family size and EI,  $r(148)=0$ ,  $p>0.05$ . The correlation for age and income was moderate and significant,  $r(126)=0.47$ ,  $p<0.05$ . Figure 1 displays these correlations in scatterplots.

For the four subscales of EI, would-be and practicing professionals were compared. In terms of the perception of emotion subscale,  $t(48.28)=-1.800$ ,  $p>0.05$ , as Levene's test showed the inequality of variances ( $F=6.345$ ,  $p=0.013$ ) and it meant both professionals were not different. In terms of managing own emotion subscale, Levene's test result ( $F=7.478$ ,  $p=0.007$ ) meant inequality of variances and t-test result  $t(39.316)=-3.426$ ,  $p<0.05$  meant there was a significant difference between two groups: practicing and would be professionals. Regarding subscale, managing others' emotions subscale, would-be and practicing professionals were found different  $t(48.146)=-4.885$ ,  $p<0.05$ , after inequality of variances was found in Levene's test,  $F=8.472$ ,  $p=0.004$ . After the Levene's test showed the inequality of variances,  $F=10.584$ ,  $p=0.01$ , t-test showed practicing and would-be professionals significantly different in terms of utilization of emotion subscale,  $t(56.422)=-5.011$ ,  $p<0.05$ .

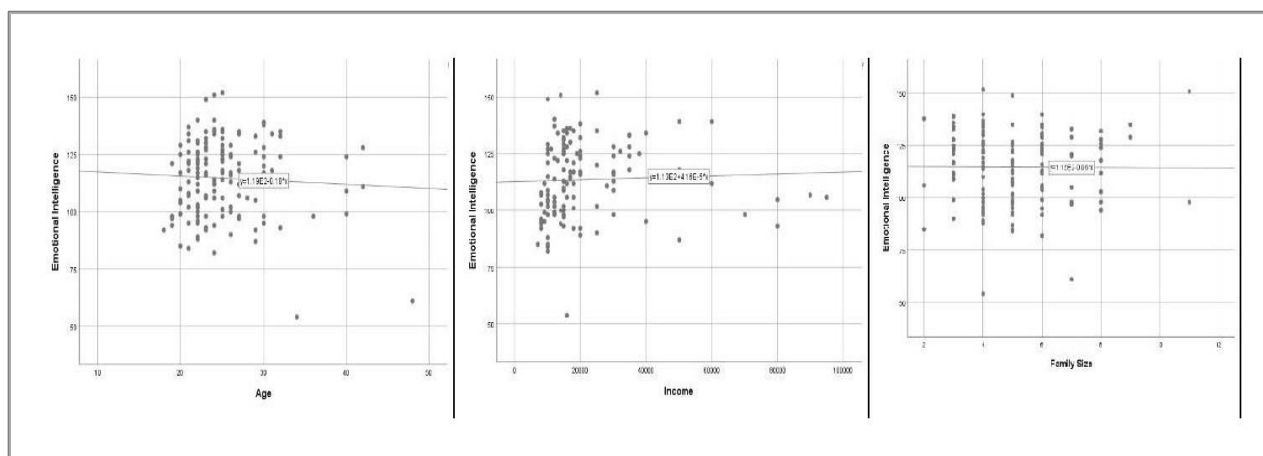


Figure 1. Predictors of emotional intelligence - age, income, family size.

## Discussion

There is no difference between married and unmarried professionals in terms of EI. Marriage does not seem to affect EI as a previous study has established [12]. There is no difference between participants living in joint or nuclear families either. Nature of family does not affect EI either. Gender affects EI. Female professionals are more emotionally intelligent. This finding is consistent with previous research [13]. Being technical or non-technical does not affect EI. Would-be professionals (i.e. interns) are less emotionally intelligent. Religion affects EI, so does educational level. Ethnicity does not affect EI, but professions affect it. There is an insignificant correlation between age and EI, and income and EI. Family size and EI are not correlated. The findings are consistent with earlier findings like female participants are better at EI scores [14]. In terms of subscales, practicing professionals are not significantly different in terms of the perception of emotions but are significantly different in terms of managing own emotions, managing others' emotions, and utilization of emotions. A probable reason for these differences is the lack of experience.

The findings may not be generalizable because the sample size is small and sampling is convenient. The questionnaire got filled up hastily. So, response sets might be present. Even a few, non-technical staff (for example administrative staff) have been included as medical professionals.

In the future, researches can be carried out among other professionals. This research overlooked the subscales' correlation with demographic variables. So, research can look at how they related to various demographic variables in the future.

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## Conflict of interest

The author declares that he has no conflict of interest.

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