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Emotional Intelligence among Nurses

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ABSTRACT

Malaysia has more than 78 thousand registered nurses working at the government and private hospitals. Nurses who make up 75% of the total healthcare workforce play important parts in providing healthcare services to patients and working with other healthcare professionals. Emotional intelligence allows people to understand the complexity of human interaction and manage his/her own emotions as well as others. Hence, emotional intelligence seems a relevant concept in healthcare, where it is considered vital for nurses to understand patients' perspectives and engage in relationships that will facilitate successful care management. This article examines the emotional intelligence profiles of nurses. In additions, it also examines the differences in the level of emotional intelligence of nurses based on selected demographic factors. A study had been conducted in four government hospitals using The Bar-On Emotional Quotient Inventory: Short (EQ-i:S) by Bar-On (1997). Three-hundred and ninety-five male and female nurses were involved as respondents. Results showed that the majority of respondents had high level of emotional intelligence and there were no significant differences of emotional intelligence based on demographic factors. It is hoped that the results and implications of the study will enhance the service quality of healthcare professionals.

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INTRODUCTION

A total of more than 78,000 registered nurses are working at the government and private hospitals (75% of the total healthcare workforce). Approximately two-third work in the government (public) sector where they are encouraged to work full-time and are generally required to retire upon reaching the age of 60 (Barnett, Namasivayam & Narudin, 2010). However, the demand for the nursing profession is increasing every year since the expected use of health services will raise in the future (Saari and Judge, 2004; Ahmad, 2010; Siew, Chitpakdee & Chontawan, 2011). Currently, there are more than 90 nursing colleges in Malaysia, that offer nursing diploma, which able to produce a total capacity of 6000 trained nurses annually (Ahmad, 2010). Nurses play important roles alongside other health care workers in providing quality health services. They must foster close relationship with patients at clinics and hospitals in order to fulfill the patients' various medical requirements. Other than attending patients' physical health, nurses are also encouraged to tend to the patients' psychological, social and spiritual needs. Previously, nurses were trained to provide health services and only maintain formal relationship with patients. However, at present new concepts are being introduced such as open communication, partnership and new nursing which stress the importance of nurse-patient relationships (McQueen, 2004). Rapports building with patients result in more information and better health status assessment, hence, better prediction on patients' needs. Once nurses are allowed to reveal their emotions and to express their humanity to patients, they have to constantly manage their feelings and emotions when treating and supporting patients. Consequently, emotional intelligence is regarded as the most important factor which can influence positive effects on nurses' capability in handling work environment and tasks involving patients.

In general, emotional intelligence (or sometimes being referred as emotional competencies) is one of the various intelligences an individual may have. It relates to the social, practical and emotional aspects of an individual. Mayer, Salovey and Caruso (2004) have a rather interesting view of emotional intelligence. They stated that the definition of emotional intelligence can be observed through the approaches of the definition of the concept itself, introduced by several experts such as Salovey and Mayer (1990), Bar-On (2000) and

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Goleman (1995). The definition of emotional intelligence can be categorized into two models; the ability model and mixed model.

The first approach by Salovey and Mayer (1990) refers emotional intelligence as the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions. Mayer, Salovey dan Caruso (2004) further explained emotional intelligence as: *the capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth (p. 197).*

The second approach by Bar-On (2000) relates an individual's life success to the individual's personality traits. He insisted that emotional intelligence consists of a series of non-cognitive skills and the ability to control an individual capability to succeed in a stressful and challenging environment. The five traits or dimensions are interpersonal, intrapersonal, mood and motivation, stress management and adjustment to the environment. Bar-On (1997) explained that a person must have the capability in both cognitive and emotions to face the challenges in daily life. Hence, he used the term emotional intelligence to illustrate the distinction between the two types of intelligence i.e. intellectual and emotional intelligences.

The term emotional intelligence has also been popularized by Goleman(1995, 1999). He too stated that emotional intelligence is a combination of both mental and emotional capabilities. Based on his opinion, it is observed that emotional intelligence is one's ability to monitor and regulate own emotions or of others which in turn help the particular individual to behave or think. He also stressed that every individual have two forms of thoughts; rational thought and emotional thought. Rational thought assists an individual to think while emotional thought helps a person to feel. Thus, both thoughts are simultaneously required for an effective human interactions and positive control over an environment. According to Goleman's(1995)definition, he divided emotional intelligence into five main components: (a) awareness of own emotion, (b) management of emotion, (c) self motivation, (d) awareness of emotion of others, and (e) management of relationship with others

For the purpose of this study, Bar-On's (2000) definition will be referred to: emotional intelligence is a non-cognitive ability and emotion management skills which influence one's capability to deal with daily routines. This matter is indeed a crucial entity in the nursing profession because it relates to the level of one's emotional intelligence. Undoubtedly, the nurses' emotional control in the relationships with patients and co-workers has obvious effects at their work place and in their daily life.

The nurses' aptitude and ability to control their own and others' emotion may produce beneficial results and have advantages toward patients as well (McQueesn, 2004). Once a nurse showed interest in the patients' emotion, physical and spiritual need aspects; the patients will respond accordingly and feel genuinely being cared for. Some patients may even show appreciations and praises to compassionate nurses. Freshwater (2004) shared the same opinion and stated that if staffs have the ability to control and express their emotion appropriately to clients, both parties will be beneficial; nurses' work will be less stressful and hence, better services to patients while the patients will have a more positive feelings and hasten the healing process (of physical and mental diseases). Besides providing benefits to the patients, past researchers also found that nurses' emotional intelligence can also assist them to fulfill the current demands of nursing profession's qualities (Deshpande& Joseph, 2009). According to Goleman(1995), most successful individuals in the occupational sectors were not that bright in their schooling days. Likewise, those who were successful in their academic will not necessarily achieve the same result in their social life or become compassionate for others. Thus, nurses with excellent academic qualifications and emotional control tend to be more successful in their career.

Abraham (2000) found that social interaction skills as one of the elements of emotional intelligence is the driving factor for an individual to succeed at work place. Positive interpersonal relationship with others will enhance job satisfaction of an individual and eventually lessen stress at work. In short, an individual with high level of emotional intelligence tends to avoid work stress, acquires job satisfaction and contributes excellent commitment to an organization.

Jacques (2009) has conducted a research among college students to find out the relationship among emotional intelligence, academic performance and course majoring criterion. The result showed that male students have higher emotional intelligence level than female students. Excellent level of emotional intelligence also tends to produce better academic performance. These findings are contrary to previous studies that indicated no significant difference between genders. Researches were also conducted regarding emotional intelligence in organizations and at work. Most researchers found that a contented employee will yield high work performance and productivity (Hassan, 2005; Jain &Sinha, 2005). Meanwhile Orginska-Bullik (2005) has conducted a research among humanity services workers to find out the effects of emotional intelligence on work stress and their health status. The results showed an inverse relation between emotional intelligence and work stress; respondents with higher emotional intelligence tend to experience lower work stress. This means that a high level of emotional intelligence may balance stressful work among workers.

Emotional intelligence is a predictor in academic performance, career advancement, services offering and health level. For example, there were several studies conducted abroad that relates emotional intelligence with emotion management at work place (Goleman, 1995; Orginska-Bullik, 2005), physical functions and psychological states (Tsaousis & Nikolaou, 2005; Landa & Lopez-Zafra, 2010), spiritual (Paek, 2004), education (Clark, Drain, & Malone, 2003) and adjustment (Dhingra, Manhas, & Thakur, 2005). Researches among nurses' emotional intelligence have also been conducted which were related to work ethics (Deshpande, 2009; Deshpande & Joseph, 2009), education and nursing training (Hurley, 2008), mental health and stress management (Montes-Berger & Augusto, 2007). The researchers believe that emotional intelligence is an essential skill that requires special attention because of its potential benefits to the patients' treatment as well as care and it can also serve to the advantages of nurses. As for that purpose, a research was conducted to study the level of emotional intelligence among nurses in Malaysia and also to investigate the differences based on certain demographic backgrounds (gender, age, marital status, years of employment, income and service placement factors).

MATERIALS AND METHOD

Twelve state hospitals in Peninsular Malaysia were divided into four main areas according to the four zones (northern, eastern, central and southern zones). There were 395 male and female respondents participated in the study. They were selected through simple random sampling.

The questionnaire used in this study was divided into two parts. Part one comprised of socio-demographic data developed by the researchers. Part two consisted of 51 items on emotional intelligence based on the Bar-On Emotional Quotient Inventory: Short (EQ-i:S) by Bar-On (1997). Items were scored according to Likert Scale point from 1 = not true of me, to 5 = true of me. It included five dimensions as suggested by Bar-On (1997) which are intrapersonal, interpersonal, general mood, adjustment and stress management. Internal reliability test showed that the overall alpha level for this study is reliable (ranging from 0.694 to 0.766). The emotional intelligence scores are divided into three levels of low, medium and high. The instrument used in this research was translated by Najib, Che Su, Zarina, Suhaini, Suhanim and Wan Bee (2006) based on back translation techniques. Data collected was analysed using The Statistical Package for the Social Sciences (SPSS). Descriptive and inferential statistics were employed.

RESULTS AND DISCUSSIONS

Demographic Profiles:

The general socio-demographic characteristics of the respondents are summarized in Table 1. Respondents age were between 23 and 55 years (Mean=33.53 years, SD = 8.54). The majority of respondents were female (96.60%). In terms of educational level, the majority of the respondents were diploma holders (77.97%). There were 392 (99.24%) Malays and 3 (0.76%) Indians. More than 67% were married, 29.7% were widowed/separated/divorced, 2.28% had never been married and 0.25% had not answered. Most of the respondents have a range of salary between RM 2001 to RM 3000 per month (44.56%). With regards to the years of experience, most of the respondents being employed as a nurse less than 10 years (53.16%).

Level of Emotional Intelligence:

The first objective of the research is to identify the level of emotional intelligence among nurses in hospital. The second objective is to study its difference based on selected socio demographic factors. The researchers believed that it is important to identify the variables mentioned above before examining the differences based on the demographic factors. The findings in this research were comparable to the ones that were conducted in many countries that portray moderate level of emotional intelligence (Jacques, 2009; Najib, Che Su, Zarina, Suhaini, Suhanim dan Wan Bee, 2006). Generally, frequency analyses showed the emotional intelligence at moderate level (80.5%). This means that respondents at large were able to manage their emotion and of others in a sensible range (Jacques, 2009; Najib, Che Su, Zarina, Suhaini, Suhanim dan Wan Bee, 2006). For the intrapersonal dimension, the score showed majority of respondents have moderate level of skills (66.6%). This is an important skill that assists an individual to maintain self-care, awareness of own emotion, assertiveness, non-dependent of others and constantly improving own potential. Nurses not only deal with patients' emotions but also their own. In certain cases, patients may die despite various treatments and efforts; therefore, nurses need to engage in a self-reflective process to become aware of their feelings and emotions. Once nurses have the ability to identify their own emotions or feelings (apart from being aware of a situation), they will become more prepared (McQueen, 2004). However, this study indicated that there were some respondents (30.9%) who have low level of intrapersonal skills.

Table 1: Socio-Demographic Profiles.

Characteristics	Frequency	%
Gender		
Female	383	96.96
Male	11	2.79
Not stated	1	0.25
Race		
Malays	392	99.24
Indians	3	0.76
Age (Mean 33.53, SD= 8.54, Range = 23 - 55 years old)		
20-30 years old	209	53.04
31-40 years old	124	31.48
41- 50 years old	38	9.64
51 and above	23	5.84
Marital Status		
Married	268	67.85
Single	117	29.7
Divorced/separated/widowed	9	2.28
Not stated	1	0.25
Salary		
RM1000 - RM2000	138	34.94
RM2001 – RM3000	176	44.56
RM3001 – RM4000	34	8.61
RM4001 and more	6	1.52
Not Stated	41	10.38
Level of Education		
Bachelor degree	3	0.76
Diploma	308	77.97
Tertiary	12	3.04
Secondary School	66	16.71
Not stated	6	1.52
Year of experience		
Less than 3 years	137	34.68
3 - 6 years	73	18.48
7 – 10 years	66	16.71
11 - 13 years	34	8.60
14- 16 year	19	4.82
17- 20 years	18	4.55
More than 20 years	42	10.64
Not Stated	6	1.52

The majority of respondents' interpersonal skills were at high level (64.5%). Interpersonal intelligence concerns with the ability to empathize with patients or co-workers, to implement social responsibilities and to have interpersonal relationships with them. In this study, it shows that nurses had demonstrated such abilities. According to Goleman (1995), these interpersonal skills can facilitate social success because it helps people to form closer relationships easily with other people, recognize their feelings and react accordingly. Furthermore, the skills are imperative for healthcare workers especially when working hand-in-hand with other healthcare professionals.

The results for general mood dimension indicated that the majority of respondents (84.6%) were optimist and happy with their work and life. Application of these two traits during crisis at work helps to sustain mental and social well-being. In other words, nurses who are able to control and manage their mood when dealing with hospital's administrations or patients, believe that depressing situations may improve to be better. Nurses will eventually enjoy performing their tasks in any health institutions. The findings are consistent with Goleman's view (1995), as he deemed happiness as providing a belief to individuals that tasks and objectives can successfully be completed regardless of any obstacles. Moreover, cheerful workers are highly motivated in life and job. In addition, they anticipate success and tackle difficulties as well as considering obstacles as temporary features of the situation (KhalidaRauf, 2010; Tsaousis& Nikolaou, 2005; Landa& Lopez-Zafra, 2010).

As for the adjustment skills, result shows that more than 72 percent of the respondents had the skills to tolerate stress and control their impulses. Working at hospitals or clinics requires nurses to have technical skills, cognitive capabilities and other skills to cope with the complexity of modern health care systems and diverse behaviors of patients. Otherwise the nurses physical and psychologically health may be affected adversely

(Tsaousis& Nikolaou, 2005; Landa& Lopez-Zafra, 2010). Undoubtedly, it is imperative for nurses to adapt to such work situations so that they may not succumb to the work load assigned to them which may negatively affect the service quality provided to patients. With respect to stress management skills, result shows the respondents' score is mainly at low level (65.8%). Meanwhile, 33.7% respondents said that their stress management skills are moderate. Less than one per cent of the respondents claimed to have high level score of this vital skill. Apparently, most respondents have inadequate skill in problems solving, flexibility and reality testing.

The following discussions focus on the difference of emotional intelligence with regards to socio-demographic factors. One-way ANOVA and t-test results did not reveal any significant differences on emotional intelligence based on gender, age, marital status, years of employment, income and service placement factors. The test results showed that all nurses have similar level of emotional intelligence even though they have different demographic backgrounds. These findings are supported by previous researches. According to Goleman's (1999) Emotional Intelligence Theory, emotional intelligence is a necessary trait for an individual to have a successful career. It relates to an individual's job value and has influence over the particular individual work performance, not merely based on demographic factors like age, position and other factors.

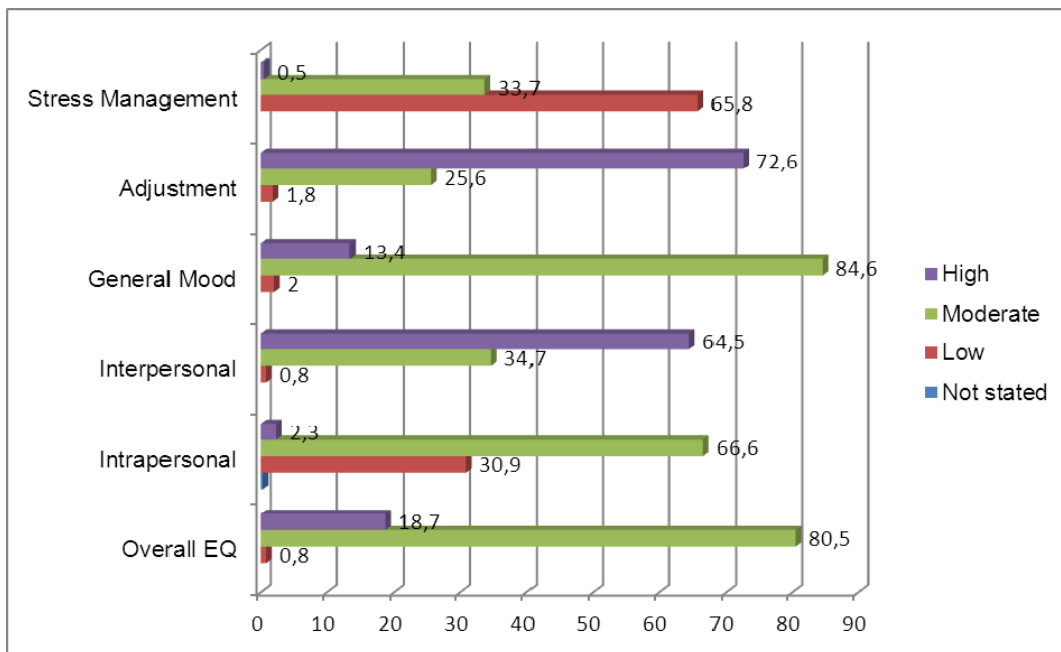


Chart 1: Level of Emotional Intelligence.

An important character of emotional intelligence principles is related to the nature of the work itself. Since nurses' task and assignments involve humanistic and social skills, emotional intelligence skills would not be difference for individuals even though they are difference in terms of gender, age, marital status, years of employment, income and service placement factors. Hence, results have found that these factors do not affect the overall emotional intelligence level at the time the study was being conducted. It also proof that professionalism preceded demographic factors. Nurses are able to perform at their best in public hospitals and their level of emotional intelligence has demonstrated that it is adequately possessed. In light of the above matters, it is important to acknowledge the sacrifices and the responsibilities that they have taken to ensure that work performance has been delivered professionally. Even though this study does not measure work performance, an indirect link between no differences in terms of demographic differences on emotional intelligence somehow signify that demographic factors will never be a hindrance factor on demonstrating emotional intelligence skills to be performed at work.

Conclusion:

The importance and value of emotional intelligence in the nursing literatures has been proven and recognized. Based on the BarOn's (1997) Emotional Intelligence Model; interpersonal, intrapersonal, general mood, adjustment and stress management skills were useful in their professional work. For that reason, the study was conducted to determine the level of emotional intelligence and the differences based on certain socio-demographic backgrounds in the nursing profession in Malaysia. The overall findings have several implications.

It may be utilized to improve and assist the nursing profession on the aspects of nursing curricula, research and practice. The following are some recommendations.

Emotional intelligence training may be incorporated into the recruitment and nursing curricula so that they will be better equipped with the professional working environment. It is also advisable to recognize the importance of emotional intelligence and train the existing nurses to improve and develop their emotional skills when addressing psychosocial needs. In addition, an appropriate short term motivation courses or training programs may be implemented with the purpose of improving these skills especially interpersonal and stress management skills. Conducting new trainee's intake screening prior to admission into the nursing course is another alternative. Even though organizations cannot directly impact employee personality, the use of sound selection methods and a good match between employees and jobs will ensure suitable candidates are selected and placed into jobs most appropriate for them, which, in turn, will help enhance their job satisfaction. Finally, more research in the area of emotional intelligence among nurses in Malaysia should be called upon. Obviously this is an area that needs further investigation as not many studies have being done in the local context.

This study has several limitations. First, respondents of this study may not be representatives of other nurses working in the private hospitals or government hospitals in other parts of Malaysia. Second, it should be observed that that there were more Malays and female respondents than other counterparts in the sample. Thus, caution should be taken when generalizing the results to the broader population in Malaysia. Third, the nature of this study was a cross-sectional design, therefore, the interpretation of the results and related information should be taken with caution. However, it is hoped that the findings will give significance information on the nursing profession. Therefore, future researches are recommended in the form of longitudinal and qualitative design in order to deepen the discovery of this area.

REFERENCES

- Abraham, R., 2000. The Role of Job Control as a Moderator of Emotional Dissonance and Emotional Intelligence: Outcomes and Relationship. *The Journal of Psychology*, 134(2): 169-184.
- Ahmad, A., 2010. Rencana Utama: Jururawat Malaysia di Tanah Arab (Main Article: Malaysian nurses in Arab countries)[online]. Available at: http://www.Kosmo_Online-RencanaUtama. Retrieved on 19 May 2012.
- Barnett, T., P. Namasivayam, D.A.A. Narudin, 2010. A critical review of the nursing shortage in Malaysia. *International Council of Nurses*. Retrieved from <http://www.scribd.com/doc/30472601/Nurses-in-Malaysia> on 19 May 2012.
- Bar-On, R., 1997. *The emotional quotient inventory (EQ-i): Technical manual*. Toronto, USA: Multi Health Systems.
- Bar-On, R., 2000. Emotional and social intelligence: Insights from the emotional Quotient Inventory. In R. Bar-On & J.D.A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 363-388). San Francisco: Jossey-Bass.
- Clark, P.A., M. Drain, M.P. Malone, 2003. Addressing patients' emotional and spiritual needs. *Joint Commission Journal on Quality and Safety*, 29(12): 659-670.
- Deshpande, S.P., 2009. A study of ethical decision making by physicians and nurses in hospitals. *Journal of Business Ethics*, 90: 387-397.
- Deshpande, S.P., J. Joseph, 2009. Impact of emotional intelligence, ethical and behavior of peers on ethical behavior of nurses. *Journal of Business Ethics*, 85: 403-410.
- Dhingra, R., S. Manhas, N. Thakur, 2005. Establishing connectivity of emotional quotient (E.Q), spiritual quotient (S.Q) with social adjustment: A study of Kashmiri migrant women. *Journal of Human Ecological*, 18(4): 313-317.
- Freshwater, D., 2004. Emotional intelligence: Developing emotionally literate training in mental health. *Mental Health Practice*, 8(4).
- Goleman, D., 1995. *Emotional Intelligence: Why It Can Matter More Than IQ*. New York: Bantam Books.
- Hurley, J., 2008. The necessity, barriers and ways forward to meet user-based needs for emotionally intelligent nurses. *Journal of Psychiatric and Mental Health Nursing*, 15: 379-285.
- Jacques, E.T., 2009. *The Relationships between emotional intelligence and the academic performance and selection of a major of college students*. Unpublished Doctor of Philosophy, TUI University.
- Jain, A.K., A.K. Sinha, 2005. General health in organizations: Relative relevance of emotional intelligence, trust, and organizational support. *International Journal of Stress Management*, 12(3): 257-273.
- Khalida Rauf, 2010. The relationship of optimism and job satisfaction in business schools. *Pakistan Business Review*, pp: 294-311.
- Landa, J.M.A., E. Lopez-Zafra, 2010. The impacts of emotional intelligence on Nursing: An overview. *Psychology*, 1: 50-58.
- Mayer, J.D., P. Salovey, D. Caruso, 2000. Models of emotional intelligence. In R. Sternberg (Ed.), *Handbook of intelligence* (pp. 396-420). Cambridge, UK: Cambridge University Press.

- Mayer, J.D., P. Salovey, D.R. Caruso, 2004. Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, 15(3): 197-215.
- McQueen, A.C.H., 2004. Emotional intelligence in nursing work. *Journal of Advanced Nursing*, 47(1): 101-108.
- Montes-Berger, B., J.M. Augusto, 2007. Exploring the relationship between perceived emotional intelligence, coping, social support and mental health in nursing students. *Journal of Psychiatric and Mental Health Nursing*, 14: 163-171.
- Najib Ahmad Marzuki, Che Su Mustaffa, Zarina Mat Saad, SuhainiMuda, Suhainim Abdullah, Wan Bee Che Din, 2006. *Kecerdasan emosi dan kompetensi pelajar-pelajar institusi pengajian tinggi awam (Emotional intelligence and competencies of students of public higher education institutions)*. Sintok: Universiti Utara Malaysia.
- Orginska-Bullik, N., 2005. Emotional Intelligence in the work place: Exploring its effect on occupational stress and health outcomes in human service workers. *Journal of Occupational Medicine and Environmental Health*, 18(2): 167-175.
- Paek, E.S.K., 2004. *The role of religiosity in emotional intelligence: An empirical study of Christians*. Retrieved on June 27, 2006, from <http://wwwlib.umi.com/dissertations/preview-all/3124960>.
- Param Jeeth Singh, Raja Jamaluddin Raja Abd.Majid, 2006. Job satisfaction among staff nurses in Kuala Lumpur hospital in 1996. *Malaysian Journal of Community Health*, 12(1). Retrieved from [http://www.communityhealthjournal.org/detailarticle.asp?id=159&issue=Vol12\(1\):2006](http://www.communityhealthjournal.org/detailarticle.asp?id=159&issue=Vol12(1):2006). Retrieved on 19 May 2012.
- Saari, L.M., T.A. Judge, 2004. Employee attitudes and job satisfaction. *Human Resource Management*, Winter 2004, 43(4): 395-407. © 2004 Wiley Periodicals, Inc. Published online in Wiley Inter Science (www.interscience.wiley.com). DOI: 10.1002/hrm.20032.
- Siew, P.L., B. Chitpakdee, R. Chontawan, 2011. Factors predicting organizational commitment among nurses in state hospitals, Malaysia. *The International Medical Journal Malaysia*, 10(2).
- Tsaousis, I., I. Nikolaou, 2005. Exploring the relationship of emotional intelligence with physical and psychological health functioning. *Stress and Health*, 21: 77-86.
- Zawawi Mokhtar, 1997. *Kepuasan Kerja di Kalangan Guru Teknik, Vokasional, dan Guru Akademik: Satu Kajian di Sekolah-sekolah Teknik dan Vokasional di Negeri Kedah Darulaman (Job satisfaction among technical, vocational and academic teachers in Kedah Darulaman)*. Unpublished Master Thesis. Universiti Utara Malaysia.