

## Effect of Insight Meditation on Enhancing Emotional Intelligence among Thai Psychiatric Nurses

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### ABSTRACT

*Psychiatric nurses' use of emotional intelligence (EI) may contribute to the mental health of patients. Nurses with high EI ability may be better at fostering a therapeutic relationship with mentally ill individuals to help them deal with stress as well as assist the nurse to maintain his/her own mental health.*

*The overall objective of this study was to examine the effect of insight meditation on enhancing EI among Thai psychiatric nurses. This two group pretest-posttest experimental design examined the differences of the EI scores, among participants before and after participating in the intervention of insight meditation, as well as between the experimental group and the control group. Twenty-six registered psychiatric nurses met the inclusion criteria. The experimental group received the intervention of insight meditation practice for eight days, whereas the control group received none.*

*The intervention protocol included a booklet the researcher developed, the Four Foundations of Mindfulness for Enhancing EI (a booklet containing insight meditation practice for enhancing EI and the Vipassanā meditation practice questionnaire). Demographic information was obtained from all participants. The Thai Emotional Intelligence Screening Test for the Thai Population aged 12 to 60 years (TEISTTP) was administered before the start of the intervention for both the control and intervention groups. The TEISTTP was administered again on the day the insight meditation intervention ended and at a one-month follow-up. The results were analyzed using descriptive statistics, Chi-square, t-test, and one-way repeated measure analysis of variance. The major finding was that the EI of the experimental group that practiced insight meditation as assessed by the TEISTTP increased significantly ( $p < 0.05$ ).*

**Keywords:** Insight meditation, Emotional intelligence, Thai psychiatric nurses

## INTRODUCTION

Psychiatric nurses are vital members of the mental health team. Through their professional education, they are prepared to provide psychiatric mental health care to the mentally ill. In providing nursing care, mental health nurses employ a key interpersonal concept known as the therapeutic use of self (Antai-Otong, 2003). Chirawatkul, Uniphun, Leuboonthavatchai, Pungthum, Waramuninthorn, Piyasirisilp, et al. (1997) reported that self-awareness is the first core desirable competency in mental health and psychiatric nursing. Moreover, therapeutic communication, counseling, group therapy, and problem analysis of patients are required as well. These required competencies are congruent with fourteen core competencies for Thai registered nurses determined by the Thailand Nursing Council (TNC) in 2003 (Thailand Nursing Council, 2003). There are challenges (Zhang et al., 2001; Akerjordet and Severinsson, 2004; Coatsworth-Puspoky et al., 2006; Horberg et al., 2004; Jackson and Stevenson, 2000; Stockmann, 2005) as well as barriers (Stockmann, 2005; Scanlon, 2006; Cameron et al., 2005; Merez et al., 2006) for psychiatric nurses as they use their interpersonal skills to assist others. The non-nursing literature also supports the idea that an effective way to develop and manage emotions is to promote self-understanding or self-awareness (Disayavanish, 2001). The practice of psychiatric nursing, particularly in acute care settings, may be negatively impacted by prolonged exposure to acutely dysfunctional individuals, stress from long working hours, and lack of social support. Limited input in treatment decisions, role conflict, organizational stressors, emotional exhaustion (Taylor and Barling, 2004), emotional discomfort (Jeanneau and Armelius, 2000), depersonalization, lower personal accomplishment, and overall lower feelings of general well-being are common among many practicing psychiatric nurses (Kilfedder et al., 2001; Stuart and Laraia, 2005). Indisputably, providing psychiatric nursing services to psychiatric patients in a wide variety of settings is not an easy task. The risk is high that psychiatric nurses experience negative emotions despite their professional education and experience. Consequently, it is necessary to promote emotional health and a sense of well-being. Psychiatric nurses with a high EI profile may potentially be able to minimize these adverse outcomes and thus achieve more balance in his/her practice.

A systematic review by Akerjordet and Severinsson (2007) revealed that EI is personal ability and social competency, which has the potential to contribute to professional development. Medhanavyn (2002) reaffirmed that EI is a crucial competency in the nursing profession. EI may potentially be utilized to promote personal growth while enhancing professional competency with psychiatric nurses (Humpel et al., 2001; McQueen, 2004). In addition, it may also assist nurses to be more responsive to their patients, colleagues, and in their practice setting through the reduction of stress and thus potentially reducing risks of violence (Budnik, 2003; McQueen, 2004; Billeter-Koponen and Freden, 2005). Akerjordet and Severinsson (2007) advocate that the core values of professional nursing include self-awareness, emotional balance, responsibility, authenticity, and empathic understanding. The scope of practice as recommended by the Thailand Nursing Council (2003) encourages EI in the practice of psychiatric nursing.

Since the 1990s, the term EI has been in widespread use in western psychology and interest in its practice has increased dramatically in recent years (Intasuwan et al., 2003). The western models of EI focus on the relationship of emotions and its linkage to the mind, development of mental abilities, and the natural qualities of a person's character and traits (Feyerherm and Rice, 2002). Similar EI components are widely practiced within Salovey and Mayer's model, Goleman's model, and Bar-On's model, which are practiced within a western context (Goleman, 2000; Mayer et al., 2004; Bar-On, 2005).

The essential components of EI are also closely linked to central concepts found in Buddhism (Phra Dhammapitaka, 1999; Phra Rajavaramuni, 1999) such as mindfulness, self-awareness, attention, and reflection on individual emotional development, all of which can increase EI. Within Buddhism, five concepts are congruent with EI components: (a) knowing one's emotions or self-awareness, (b) managing emotions, (c) recognizing emotions in others or empathy, (d) motivating oneself, and (e) handling relationships. All are associated with the principle of insight meditation based on the Four Foundations of Mindfulness in Buddhism (Disayavanish, 2006).

Self-awareness is congruent with mindfulness in Buddhism. Mindfulness and clear comprehension can be individually cultivated by practicing insight meditation based on the Four Foundations of Mindfulness. As a result, insight meditation develops calmness, focused attention, and insight to emotions and thoughts that may warrant attention (Disayavanish, 2006). Therefore, one who practices insight meditation may, as a result, improve his/her own EI. When psychiatric nurses focus on their emotions, thoughts, feelings, or visualizations through meditation, they may be able to achieve a higher EI score. They also may potentially integrate this insight and higher EI quotient into their interpersonal relations with their patients. A few studies (Meesaen, 2000; Meesaen, 2008; Karnpungton and Bantengsook, 2003) aim to develop and examine EI through the lens of the Buddhist perspective. However, studies specifically addressing how to enhance EI for psychiatric nurses are lacking.

Within a school setting, Meesaen (2000) conducted an insight 7-day meditation program designed to increase EI among Mathayom Suksa in eleventh grade Thai students in the Tak Welfare School. The findings showed that the posttest scores of EI in the experimental group were significantly higher than those of the pretest scores ( $p < 0.01$ ). The experimental group also had significantly higher scores of EI than the control group after attending the program ( $p < 0.01$ ).

Meesaen (2008) also employed a meditation practice together with eight activities: moral songs, walk consciously, meditate using Buddhist songs, practice hand movements consciously, practice body movements consciously, massage the face consciously, exercise consciously, and study EI from VCD, VDO, and tape. The researcher spent nine weeks increasing the EI among Thai teachers also in the Tak Welfare School. The findings revealed that the posttest EI scores in the experimental group were significantly higher than the pretest scores ( $p < 0.01$ ). The experimental group also had significantly higher levels of EI in categories such as virtue, competence, and happiness than the control group ( $p < 0.01$ ). The

researcher reported that the EI levels in the experimental group at one-month follow-up were not significantly different from the posttest. None of these studies examined the long-term effect of insight meditation on enhancing EI in the experimental group. Thus it is unknown the extent the reported changes were sustainable over time.

In an intervention study of nursing students, Karnpungton and Bantengsook (2003) conducted an eight-day, seven-night program for second year nursing students at Phrapokklao Chanthaburi Nursing College. The results were congruent with Meesaen's study in 2000. The researchers reported that practicing the Four Foundations of Mindfulness increased the level of EI among nursing students.

Existing EI programs specifically designed for psychiatric nurses have not been reported. This investigation focused on increasing EI levels in Thai psychiatric nurses.

The four hypotheses of the study were: (a) psychiatric nurses after participating in the intervention of insight meditation have better EI than before, (b) psychiatric nurses who participate in the intervention of insight meditation have better EI than those who did not, (c) psychiatric nurses have better EI immediately following intervention and at the one-month follow-up than before participating in the intervention, and (d) psychiatric nurses who participate in the intervention of insight meditation have better EI than those who did not participate in the intervention on both the day intervention ended and at the one-month follow-up. The overall objective of this study was to examine the effect of insight meditation on enhancing EI among Thai psychiatric nurses.

### **Meditation Concepts**

The recommended path by experts to enhance EI is to incorporate the components of *Threefold Training* together with practicing insight meditation using the *Four Foundations of Mindfulness* (Phra Dhammapitaka, 1999; Phra Rajavaramuni, 1999; Disayavanish, 2006). Threefold Training is an educational approach for emotional and mental development designed for beginners who intend to train their mind and achieve emotional balance. It is composed of three inseparable steps: (a) training in high morality: *right speech*, *right action*, and *right livelihood*; 2) training in high mentality: *right effort*, *right mindfulness*, and *right concentration*; and 3) training in high wisdom: *right view* and *right thought* (Phra Dhammapitaka, 1999; Phra Rajavaramuni, 1999; Disayavanish, 2000; Intasuwan et al., 2003; Payutto, 2003). Practicing insight meditation is a way to purify the individual mind, overcome sorrows and lamentation, overcome pain and grief, reach the Noble Path, and realize *Nibbāna* (Venerable U Sīlānanda, 1990). This practice cultivates self-awareness and promotes EI among lay people.

When using insight meditation, participants must investigate and focus mental impressions or contact (*phassa*) that arise in the body and the mind. There exist body (*kāya*), feelings (*vedanā*), mind (*citta*), and mental objects (*dhamma*). Through the practice of insight meditation, the participants focus on these concepts with the potential result being an increase in their EI.

Integrating the *Five Precepts*, the basic code of ethical conduct for lay people,

throughout the meditation process is essential. The *Five Precepts* are: abstention from killing, stealing, sexual misconduct, lying, and intoxication. Undertaking and observing the *Five Precepts* helps the individual's mind to become clear, calm, and ready to develop the concentration needed for insight meditation (Venerable Chanmyay Sayadaw, 2002). Through the *Five Precepts*, the participant is able to maximize his/her ability to focus on his/her body, feelings, mind, and mental objects regarding the *Four Foundations of Mindfulness*. The participant's mind can temporarily be removed from the *Five Hindrances* that are negative thoughts and emotions. The *Five Hindrances* are: (a) sensual desire (*kamachhanda*), which is craving for pleasure; (b) anger or negative thoughts (*byapda*), which is directing bad feelings to others; (c) boredom (*thina-middha*) or little or no effort to focus and concentrate; (d) restlessness-worry (*uddhacca-kukucca*), or the inability to quiet the mind; and (e) doubt (*vicikiccha*), the inability to trust or believe (Phra Rajavaramuni, 1999; Buddhadasa Bhikkhu, 2006; Disayavanish, 2006). These hindrances can distract the participant from achieving success with meditation. Therefore, acknowledging and contemplating the *Five Hindrances* cultivates and increases mindfulness as well as promotes self-awareness.

While meditating, it is essential the participant understand the arising-and-ceasing phenomena that occur with each moment and the necessity of such being accompanied by a sufficient level of momentary concentration or *khaṇika-samādhī*. This intervention aims to cultivate a mindful awareness of the body and mind processes, which assists the mind to overcome the *Five Hindrances* (Venerable U Silānanda, 1990; Venerable Chanmyay Sayadaw, 2002; Disayavanish, 2006).

The intervention of insight meditation offers the most direct, effective, and simplest path for training the mind in order for the practitioner to increase self-awareness, and maintain a peaceful mind. This intervention does not place the participant at any unusual risk for an adverse outcome (Bhikkhu Pīyananda, 1996). By practicing insight meditation for at least eight days, the participants will experientially discover the truth about themselves regarding their body and mind through incorporating the *Five Aggregates* and the *Three Common Characteristics* or the *Law of Change* (Venerable Ajahn Chah, 2002). Daily, the participant can see how the *Five Aggregates* work together to produce personal experiences and create self (*attā*).

The term “self” is just a convenient term for a collection of physical and mental factors. However, people tend to cling to the belief that one's own body and mind is who they are. Therefore, individuals who are aware, have an analytical view of life, and truly understand the concept of “non-self” by learning and gaining an understanding of the *Five Aggregates* can detach themselves from their self and any suffering. Conversely, individuals who do not train their mind and still attach it with defilements and ignore them may be more prone to experience negative feelings.

Potentially, through insight meditation, the participant will have a better understanding of him/herself and have more insight into the behavior of others. This leads to the possibility that those engaging in insight meditation may be able to enhance their EI, particularly in regards to virtue, competence, and happiness



(Phra Dhammapitaka, 1999; Phra Rajavaramuni, 1999; Disayavanish, 2006).

## MATERIALS AND METHODS

### Study design and sample

A two group, pretest-posttest, control group, experimental design was used to examine the differences of the EI scores between Thai psychiatric nurses randomly assigned to either an experimental or control group. The experimental group received the researcher-designed intervention while the control group received none.

Before collecting any research data, the Institutional Research Review Board of Chiang Mai University, the Research Ethics Committee of the Department of Mental Health (DMH), Ministry of Public Health of Thailand, and the Research Ethics Committee of Srithanya Psychiatric Hospital approved the study.

The participants were recruited via power analysis in order to reduce the risk of type II error (Polit and Hungler, 1999). The sample size was determined based on an effect size of 0.619 and a power of 0.90 from Meesaen's (2008) study. The participants were recruited from two Thai psychiatric hospitals. Given the heavy workload of the potential applicant pool, the commitment required to participant in the intervention, and limited funding, 26 psychiatric nurses were enrolled in the study. Following informed consent, 10 were enrolled in the experimental group and 16 in the control group. The inclusion criteria included: (a) being registered psychiatric nurses; (b) professing themselves as Buddhist; (c) willing to consent and agree to participate in this study; (d) being able to entirely engage in the intervention; (e) free of any self-reported physical or mental illness; (f) having a normal EI score (139-173), as measured by the Thai Emotional Intelligence Screening Test for the Thai Population (TEISTTP) aged 12 to 60 years, developed by the Department of Mental Health.

The experimental group participated in the insight meditation intervention during 20-29 April 2009, excluding the weekend, at Pimokhmook Institute, a meditation center in Chiang Mai Province.

For the control group, the researcher sent the demographic data forms, the EI questionnaires, and the informed consent forms to the participants' workplace or home directly by post as they requested. The participants returned the completed forms by post. The researcher provided them incentives (a meditation booklet, meditation mat, and dhamma books) at their workplace.

### Instruments

A demographic data form created by the researcher and the TEISTTP was used. The demographic information collected included gender, age, marital status, level of education, job function, economic status, years of work experience, and experience in practicing insight meditation based on the Four Foundations of Mindfulness.

The TEISTTP developed by the Thailand Department of Mental Health was used as the EI assessment instrument. This assessment has fifty-two test items

using Likert-scale responses. The scale is organized into three main categories of EI, including virtue, competence, and happiness. The results are classified into three EI levels: low (<139), normal (139-173), and high (>173) (Department of Mental Health, 2000). The maximum possible score is 208. Participants take approximately 15-20 minutes to complete the assessment. The test employs a four-point response scale with a textual response format as follows: 1 = never or not true of me, 2 = sometimes true of me, 3 = almost true of me, and 4 = very true of me. The test uses short sentences that contain both negative and positive EI competencies so that the researchers established a reverse scoring criteria for each item (Department of Mental Health, 2000). The reliability coefficient for the entire test set and the three main components from the pilot test in the current study were 0.93, 0.82, 0.78, and 0.85, respectively.

### **Data collection and intervention procedure**

The researcher developed an insight meditation intervention to increase the experimental groups' EI level. The intervention included a protocol of insight meditation that was based on the *Four Foundations of Mindfulness* for enhancing EI. An instructional booklet designed to help the participant increase his/her EI level was also included. The participants completed a Vipassanā meditation practice questionnaire and a self-evaluation. All three interventions were developed by the researcher and were reviewed by a panel of five experts for validity and reliability as a means of increasing participants' EI levels. This study was conducted over a three-month period, April-June 2009.

The researcher arranged a time at which the participants in the experimental group could meet. Transportation to the intervention site, meals, and refreshments were provided. The researcher also paid the experimental group to compensate for their having to pay overtime to the shift nurses filling in for them at work during their absence.

After obtaining informed consent, the experimental group was provided further information about the study, provided the intervention protocol booklet, and given the TEISTTP pretest to complete at home. The pretest was returned on the first day of the implementation of insight meditation protocol. The researcher contacted the participants via telephone to keep them engaged in their commitment to participate in the intervention.

Informed consent was obtained from the control group. They were provided ongoing information regarding the study via telephone. The demographic data form for pre-and posttest assessments were sent to the control group participants via mail.

The experimental group participants practiced insight meditation for nine hours per day, five days per week, for eight total days (excluding a weekend). Adjustments were made as necessary due to such factors as the unavailability of the scholarly monk who participated on selected days during the intervention. In some cases, alternative strategies related to practicing insight meditation were used when a scheduled meditation session with a monk was changed on short notice.

The control group participants did not receive any of the intervention. The experimental group took the EI posttest immediately after completing the 8-day insight meditation intervention and again one month after the intervention ended. While the researcher attempted to administer the pre- and posttests to the control group at the same time as the intervention group, this was impractical given work schedules of the control group participants. To provide equal benefit, the researcher also provided the booklet and the same incentives as the experimental group received after pretest, except the payment.

### **Data analysis**

The demographic data of the participants were analyzed by descriptive statistics using frequency, percentage, mean, and standard deviation. Chi-square and independent sample t-test were used to examine the difference of characteristics between the experimental and the control group at baseline. The one-sample Kolmogorov-Smirnov Test showed the Thai Emotional Intelligence Screening Test for the Thai Population aged 12 to 60 score was normally distributed in both groups at pretest, post-test immediately following experimental group intervention, and at the one-month follow-up. Therefore, both groups of participants in this study were randomized from a normally distributed population.

Two-way Analysis of Variance (ANOVA) was used initially to compare the EI score among the participants between both groups and the differences in EI scores between the three points of measurement. Since there was an interaction between the factors, which distorted the assumptions of the two-way ANOVA, the t-test and one-way repeated ANOVA were administered to test the simple effects.

## **RESULTS**

### **Demographic characteristics**

The control group included 14 women and 2 men, with the majority falling within the 31-39 year age range. The experimental group included 10 women, with the majority falling within the 40-48 year age range. Most participants in both groups were married, worked in an inpatient unit, and had sufficient economic status. Years of work experience varied. The majority of participants in the control group had a bachelor degree (68.8%), whereas the majority of the experimental group had a master degree (60.0%). According to the review literature, neither the age nor educational difference between the groups should affect the results. Six participants (37.5%) in the control group and five (50.0%) in the experimental group had experience practicing insight meditation.

According to the analysis of Chi-square and independent sample t-test, no statistical difference existed across all demographic characteristics of both groups at baseline, except economic status. However, the literature confirmed that economic status has no effect on EI (Sucaromana and Intharakhamheang, 2005) and the one-sample Kolmogorov-Smirnov Test showed that the data was distributed normally for both groups.



**Effect of the intervention of insight meditation practice on the EI scores**

The independent t-test was used to compare the EI scores of Thai psychiatric nurses who participated in the intervention of insight meditation and those who did not. The results in Table 1 indicated that there was no statistically significant difference in the EI score between the experimental and control groups at pretest (t-value = 1.13, Sig. 0.135). However, the mean EI scores of the control and experimental groups differed immediately after intervention (F = -2.13, Sig. 0.022) and at the one-month follow-up (F = -1.78, Sig.0.044). These results confirmed that mean differences of the EI score in the experimental group immediately following intervention and at the one-month follow-up were significantly higher than in the control group.

**Table 1.** Comparison of the EI scores between the control and experimental groups at three points of measurement.

Test period	Control group (N=16)	Experimental group (N=10)	Independent t-test	p-value
	Mean (SD)	Mean (SD)		
Pretest	163.69 (15.60)	157.30 (10.97)	1.13	0.135
Post-intervention	169.31 (15.96)	181.60 (11.13)	-2.13	0.022*
One-month follow-up	174.69 (15.86)	185.50 (13.72)	-1.78	0.044*

Note: \* p<0.05

One-way repeated measure ANOVA was used to compare the EI score of Thai psychiatric nurses at three points of time for each group: pretest (prior to intervention), on the day the intervention ended for the experimental group, and at the one-month follow-up. The assumption of the ANOVA was tested before performing the analysis. Mauchly’s Test of Sphericity showed homogeneity of variance of the EI score. These findings implied no violated assumptions of using ANOVA. In the control group, the result showed a value at Greenhouse-Geisser line (F = 7.481, Sig. 0.008) with effect size 0.33, whereas the result in the experimental group revealed a value at Sphericity Assumed line (F = 17.093, Sig. 0.00), with effect size 0.65. These findings revealed that there was at least one pair of the EI scores among the three points of measurement of each group that had a statistically significant difference.

According to the post hoc analysis in Table 2, which was used to determine the location of differences after ANOVA within the experimental group, the findings indicated a statistically significant increase in the EI score between pretest and the day intervention ended (Sig. 0.006), and between pretest and the one-month follow-up (Sig. 0.002). There was no statistically significant change in the EI score between the day intervention ended and at the one-month follow-up, although the mean score increased slightly (from 181.60 to 185.50). Whereas in the control group, there was a statistically significant increase in the EI score between pretest and the one-month follow-up (Sig. 0.026), and between the day

intervention ended and the one-month follow-up (Sig. 0.034). Interestingly, there was no statistically significant change in the EI score between pretest and the day intervention ended posttest.

**Table 2.** Post hoc comparison of Bonferroni test of EI scores in the control and experimental groups.

Group	Mean EI scores					
	Pretest (1)	Post (2)	1 month (3)	(1) vs (2)	(1) vs (3)	(2) vs (3)
Control	163.69	169.31	174.69	0.174	0.026*	0.034*
Experimental	157.30	181.60	185.50	0.006*	0.002*	1.000

Notes: Post = the day the 8-day intervention ended for the experimental group

1 month = the one-month follow-up

\*  $p < 0.05$

## DISCUSSION AND CONCLUSION

The first hypothesis and the third hypothesis tested the effect of the intervention within the experimental group. Based on the data in this study, Table 2, the increase of mean EI scores confirms that a significant change occurred within the experimental group. This increase may be a result of the intervention originating from the *Threefold Training*, in which all participants were trained in observing the *Five Precepts*, practiced meditation for eight days, received education regarding Buddha's Core Teachings, and received feedback on their meditation practice. Moreover, when individuals meditated and applied the five Dhamma powers of confidence, effort, mindfulness, concentration, and wisdom throughout the period of practicing insight meditation, greater emotional self-awareness, or mindfulness, occurs and the individual may experience less negative emotions (Phra Rajaprommajarn, 2004).

Achieving mindfulness takes time. The more the practitioner trains his/her mind through insight meditation, the more the power of the mind increases (Venerable Ajahn Chah, 2002). After the intervention ended, the posttest score revealed that participants in the experimental group had improved EI scores in the areas of virtue, competence, and happiness.

The experimental participants used the Vipassanā meditation practice questionnaire as a means of communicating their daily practices and concerns to the researcher and the mediation experts who participated in the intervention training. This team throughout the intervention provided consistent feedback and suggestions for improving self-awareness and increasing right mindfulness in daily practice.

This investigation's outcome was similar to previous studies of Meesaen (2000, 2008) and Karnpungton and Bantengsook (2003), which indicated that the experimental group who practiced insight meditation had higher EI than the control group. These three previous studies also used the same EI questionnaire as the current study. This study also reaffirmed the study by Meesaen (2008) that the mean scores of EI in the experimental group were not significantly changed from those assessed at the end of the intervention and at the one-month follow-up.

The second hypothesis and the fourth hypothesis were tested to examine the effect of intervention between groups. Table 1 shows that the participants in the experimental group had significantly higher EI scores than the control group immediately following intervention ( $p < 0.05$ ) and at the one-month follow-up ( $p < 0.05$ ). These findings are congruent with the process of the *Threefold Training*, the practice of insight meditation, and the importance of receiving feedback, including critical reflection from the intervention team. This process has demonstrated the efficacy in assisting the practitioner over time to achieve more wholesome thoughts, communication, and behaviors (Phra Rajavaramuni, 1999; Disayavanish, 2006).

The participants in the experimental group were encouraged by the researcher to exercise the *Four Efforts* while practicing insight meditation by developing and maintaining good deeds along with overcoming and preventing unwholesome deeds. This eight-day program of insight meditation study was interrupted by a weekend. The first five days of the intervention were conducted on Monday-Friday, followed by a weekend break, with the last three days of intervention the next Monday-Wednesday. This two-day interruption differs from previous studies (Meesaen, 2000; Meesaen, 2008; Karnpungton and Bantengsook, 2003). While not assessed, this two-day break may have provided the participant additional time to practice and reflect. However, the participants were not required to continue with meditation practice as a part of the intervention. Since the practice of insight meditation increases self-awareness and develops wisdom, the mind can be trained through practicing and learning over time (Venerable Ajahn Chah, 2002). Individuals are not able to develop higher levels of EI just by reading books (Venerable Ajahn Chah, 2002). From participant feedback and self-evaluation statements obtained from the Vipassanā meditation practice questionnaire, the experimental group reported that they were motivated to continue with their meditation and continued to achieve benefits from the practice. Some reported practicing insight meditation regularly at home after the intervention ended.

This small study has shown that insight meditation practice may potentially enhance EI among Thai psychiatric nurses. Participants in the experimental group retained their EI posttest levels one month after the end of the intervention. There was no statistically significant change in the EI score of the experimental group between the two posttests—immediately following intervention and at the one-month follow-up.

An unexpected finding is that the control group had a better EI score at the one-month follow-up (mean = 174.69, SD = 15.86) than on the posttest immediately following intervention (mean = 169.31, SD = 15.96) or the pretest (mean = 163.69, SD = 15.60), with these changes statistically significant at the 0.05 level. A possible explanation is that the control group may have increased their EI scores by studying the meditation booklet that was provided to them following the pretest assessment. In addition, the fact that six of the control group participants had prior experience with insight meditation may have been a factor. Moreover, the influences of history and testing may threaten the internal validity of this study, affecting the results (Burns and Grove, 2001). Potentially, the fact

of just assessing the participants' EI may, in and of itself, influence the control group's attitudes or increase their knowledge of EI.

Another potential factor which may have contributed to the lack of any significant change in the score between the pre- and posttest assessment of the control's groups EI may have been due to their ability to recall the questions given the test was administered only 10 days apart. However, the experimental group did show a significant increase in their EI score and they used the same pre- and posttest assessment instrument.

In summary, this pilot study does provide some evidence that the use of insight meditation can increase the EI scores of participants. It is assumed that a higher EI score may mean the psychiatric nurse is better able to be centered in his or her own life and thus better able to practice psychiatric nursing.

The major findings revealed that the EI mean scores of registered psychiatric nurses who received insight meditation intervention had significantly higher EI scores immediately following intervention and the EI score was sustained for one month ( $p < 0.05$ ). The EI mean scores of the intervention group were significantly higher than the control group at the same measurement intervals ( $p < 0.05$ ). The intervention in this study was examined with participants who had a normal level of EI and small sample size. These limits may not be representative for psychiatric nurses in Thailand and may cause a limitation in the generalization of the result of this study to other groups since the education level of the participants and experience with meditation may also have had an impact on the study outcomes.

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