Mother-Infant Interaction Induces Physiological Reactions in the Brain

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Background: Breastfeeding and holding are believed to foster the development of bonding between infant and mother in early infancy, and provide the opportunity for sensitive interactions. However, their mechanisms have yet to be elucidated fully.

Objective: The purpose of this study was to identify the oxygenation state of the frontal cortex of infants and their mothers using near-infrared spectroscopy (NIRS), a non-invasive method.

Methods: Twenty-one healthy infants (age: 4 weeks - 21 weeks old) and their mothers (age: 25–39 years old) participated in this study. Changes in the concentration of oxygenated hemoglobin and deoxygenated hemoglobin (deoxyHb) in the frontal cortex of 21 infant-mother pairs were measured simultaneously. The data were measured in three conditions: 1) Separation (the infant on a bed was separated from his/her mother by a screen); 2) Caring (the mother held her infant and spoke to him/her); and 3) Breastfeeding. Cross-lagged correlation analysis was performed between the infants’ and mothers’ oxygenated hemoglobin levels.

Results: During separation, the oxygenated hemoglobin amplitude and frequency of infants and mothers was large. Changes in the oxygenated hemoglobin levels of infants while breastfeeding were small and fluctuated stably. In cross-lagged correlation analysis, the correlation between the oxygenated hemoglobin levels of infants and their mothers was significant. The average of phase different time (sec) maximized absolute value of correlation coefficient were 4.6 ± 7.4, 2.8 ± 8.28, 1.6 ± 6.69 on Separation, Caring, Breastfeeding, respectively.

Conclusion: Breastfeeding gives the opportunity of skin-to-skin contact and sucking stimulation is transmitted to the mother’s brain via the medulla oblongata. In the cross-lagged correlation analysis, it was found that during breastfeeding, the response time between infant and mother was short and infant and the oxygenated hemoglobin levels of infants and mother showed a strong correlation. The data suggest that breastfeeding affects mother-infant interaction through the brain hemodynamics of mothers and infants.

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Nursing Students’ Perceptions on Benefits of Mentoring Programme

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Background: Mentorship programme for pre-registration nursing education has been introduced to help nursing students’ gain knowledge and practical skills during clinical placement. Yet, limited study was found about nursing students perspectives on benefits of mentoring programme in Brunei.

Objective: To explore nursing students’ perceptions on benefits and problems of mentoring programme.

Methods: The study was conducted in Brunei Darussalam. Both quantitative and qualitative method was used in this study. The survey questionnaire was distributed to a convenience sample of 64 nursing students from College of Nursing in Brunei Darussalam. Interviews were conducted with ten students on the same group, and five allocated mentors, using a semi-structured interview guide.

Results: Findings shows that the majority of students felt that the greatest benefits that they have gained from their mentors was sharing experiences and learning (56, 94%), opportunity to learn new things and had positive experience during the mentoring programme (55, 92%), and 54 (90%) students had benefited from good communication skills and development of relationship with mentor. Other benefits that were also highly favoured in students’ responses were that they gained help in acquiring skills and being approachable. In addition, it was shown that approximately 87% (52), helped in knowledge development (51, 84%), and developing students to be fully independent (48, 80%). The five most common problems encountered during the mentoring programme as perceived by students were: (1) mentoring focused on job needs only (35, 58.3%); (2) the programme was not properly handled at the early stage (34, 40%); (3) mentors are generally too busy and not available (33, 33%); (4) lack of awareness of the programme (24, 24%); and (5) the mentor is ill-prepared for the programme (24, 24%).
Abstracts

**Conclusion:** This study suggest the need to continue the mentoring programme. However, the application of a mentoring role in practice needs to be re-examined, with the provision of a clear structured guide, with regard to the needs of students and staff who are expected to act as mentors.

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**Brief Cognitive Behavioural Therapy for Depression among Patients with Alcohol Dependence in District Hospitals and Provincial Hospitals, Thailand**

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Background: Alcohol consumption has become very common in countries all over the world, and the same is the case in Thailand (Junsirimongkol, et al., 2013). Depression is one of the most commonly diagnosed comorbid psychiatric problems among patients with alcohol dependence. Cognitive Behavior Therapy has shown promise as an evidence-based treatment for depression (Persons, Bostrom, & Bertagnolli, 1999; Merrill, Tolbert, & Wade, 2000; Westbrook & Kirk, 2005). However, compliance for Cognitive Behavior Therapy treatment is often limited by factors such as 18.4% drop out rate (Swift & Greenberg, 2012). Brief Cognitive Behavioural Therapy was a test for reducing depression among alcohol-dependent people in northern Thailand.

Objective: This study evaluated the short-term efficacy of Brief Cognitive Behavioural Therapy for reducing depression among Thai general hospital patients with alcohol dependence.

Methods: A quasi-experimental design was used, with control group, pre-test-posttest and follow-up. Participants were patients with alcohol dependence and depression concerns recruited from district and provincial hospitals in northern Thailand. Eighty (n = 80) eligible participants were purposively selected and enrolled, and then randomly assigned into two conditions: receiving three weeks of brief 6-session cognitive behavioural therapy as the intervention or usual care. Data were collected at week 0 (pre-test); week 3(post-test) and week 7 (one month follow up and included a 9-item depression scale), with analysis through descriptive statistics and t-test.

Results: Findings indicated that the mean depression scores decreased significantly (p < 0.01) in both the experimental (n = 33) and control group (n = 27 at one month post-treatment (week 7). However, only the experimental group showed significant differences in their mean depression scores between pre- and post-test. At week 7, the experimental group showed significantly lower mean depression scores than the control group (p < 0.05).

Conclusion: The brief 6-session cognitive behavioural therapy intervention yielded promising results and may benefit patients with alcohol dependence and depressions who are seen in general hospital settings.

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**A Hypothesized Model of Binge Drinking Behaviors among Thai University Students Based on Social Ecological Model**

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Background: Binge drinking behavior, consumption of 5 (for males)/4 (for females) or more standard drinks, in a short period of time at least once in the past 30 days, increased risk for serious problems among university students. Several studies in other countries have identified many factors that influence binge drinking behaviors among university students. Using Social Ecological Model, Social Cognitive Theory and Social Normative Theory, as a conceptual framework, provide an understanding of the interactions of binge drinking behaviors among university students within their context on multiple levels of influence including intrapersonal/individual, interpersonal, institutional organizations, community, public policy levels.

Objective: The purpose was to review the predictors of binge drinking behaviors among university students.

Methods: The Hypothesized model of binge drinking behaviors among Thai University Students was created according to the reviewing literatures from Social Ecological Model, Social Cognitive Theory, Social Normative Theory and previous studies of international countries. They revealed that personal knowledge, attitudes, expectations and drinking refusal self-efficacy as factors in individual level, peer influences as factor interpersonal level, organizational regulations as factor in organizational level, physical environments related to drink and alcohol advertisements as factors in community level, and public alcohol policies as factor in public policy level affect binge drinking behaviors among university students.

Results: The results found that attitude, peer influence, physical environments of drinking and alcohol advertising have a direct positive effect on binge drinking behaviors, while knowledge and drinking refusal self-efficacy have a direct negative effect. Additionally, alcohol expectancy and alcohol regulations of organizations have an indirect effect on binge drinking behaviors through attitude, while public alcohol policies has an indirect through knowledge.