

Locus of Control, Emotion Venting Strategy and Internet Addiction

Jia-Ru Li, Chih-Hung Wang, and Ching-Wen Lin

Abstract—Internet addiction has become a critical problem on adolescents in Taiwan, and its negative effects on various dimensions of adolescent development caught the attention of educational and psychological experts. This study examined the correlation between cognitive (locus of control) and emotion (emotion venting strategies) factors on internet addiction of adolescents in Taiwan. Using the Compulsive Internet Use (CIU) and the Emotion Venting Strategy scales, a survey was conducted and 215 effective samples (students ranging from 12 to 14 years old) returned. Quantitative analysis methods such as descriptive statistics, *t*-test, ANOVA, Pearson correlations and multiple regression were adopted. The results were as follows: 1. Severity of Internet addiction has significant gender differences; boys were at a higher risk than girls in becoming addicted to the Internet. 2. Emotion venting, locus of control and internet addiction have been shown to be positive correlated with one another. 3. Setting the locus of control as the control variable, emotion venting strategy has positive and significant contribution to internet addiction. The results of this study suggest that coaching deconstructive emotion strategies and cognitive beliefs are encouraged to integrate with actual field work.

Keywords—Emotion venting strategy, locus of control, adolescent internet addiction.

I. INTRODUCTION

INTERNET addiction has become an urgent concern on adolescents in Taiwan. Previous research has attempted to explain personal variables in relation to overuse internet behaviors. Among these studies, attentions were highly paid to personal cognitive (locus of control) and emotion (emotion venting strategies) factors. Control model suggests that external control is associated with an increased risk of internet addiction [1] [2]. Although this model proves to be useful for understanding the link between personal psychometric and internet addiction, there are some important personal factors which does not take into account. Emotion regulation model considered internet addiction a kind of deficit coping strategy to alleviate their tense and chaotic emotions [3][4][5].

However, there is a paucity of research regarding internet addiction with the combination of these two models. This study

investigated the combination of the two models for explicating the links that exist between the two factors and internet addiction.

II. CONTROL MODEL

Control model hypothesized that individuals with an external locus of control admitted they were powerless and tends to seek for compensation in highly controlled internet environment [1] [2]. Locus of control refers to individual's perception of control which regards one's beliefs of his own behavior or ability could affect the outcome of a situation [6]. Individuals who prefer the internal locus of control tend to think that their efforts, behaviors, or skills will influence outcomes, while they would also be in charge of challenges and inclined to take actions [6][7]. On the other hand, individuals with an external locus of control judge outcomes to external sources, meaning that they believe in forces beyond their control, such as chance, luck, fate or working on the occurrence of reinforcing events [6][7]. Previous studies indicated that children with external locus of control reported stronger anxiety under stressful situations [8][9], and would prefer to avoid coping [10][11][12]. In addition, research pointed out the relationship between locus of control and addicted behaviors as well as substance abuse [13][14].

III. EMOTION REGULATION MODEL

Emotion regulation model hypothesized that individuals who were unsuccessful to regulate negative emotions tends to consume substance or become addicted to specific activities as agencies to purge affects [4][5]. Emotion venting was referred to releasing negative feelings by emotional voices or physical responses which are not under control, sometimes sue for attention (i.e., crying, shouting or throwing on objects) [15] [16], which were often demonstrated by nonverbal and blunt expression of emotions [17]. Simply acting out one's negative emotions has been proved to be maladaptive [18]. Bushman (2002) indicated that subjects who vented their anger on punching bags felt angrier and were more likely to engage in aggressive actions [19]. Kross and Ayduk (2008) pointed out that the remote awareness and analysis of one's negative feelings would benefit by reducing depressed effects, while an immersed analysis of one's negative feelings was demonstrated less effective [20]. Failure to cope with negative emotions may force one to engage in something which brings immediate comfort that cause injuries to themselves in the long term. McDougall (1984) identified substance abuse as a compulsive

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way of letting off overflowing and strong negative emotions [21]. Researchers also suggested that smokers use nicotine to self-medicate depressive symptoms or manage their mood [22] [23]. The use of nicotine to medicate mood affects regulation, which is described as any attempt to alter a mood state or alleviation of negative mood [4] [5] [24].

IV. INTERNET ADDICTION

Internet addiction is defined as a concept of compulsive internet use or excessive internet use [25][26]. Internet addiction included several synthesized syndromes, such as overly attached to the use of certain internet applications or activities, continue their online behavior even acknowledged some troubles had made by the use of internet [25], have fail tried to lessen the time spent on the internet (Sattar & Ramaswamy, 2004), which resulting in psychological, social and professional impairment[27] [28] [29]. Previous study indicated that greater use of the internet was related with minor communication with family members in the family circle, limited in the social contact, and an increase in depression and loneliness [30]. Other studies also have offered additional evident supports the relation between internet overuse and psychosocial wellbeing, such as shyness, self-esteem, loneliness and depression [31][32] [33]. The challenge is to extend the understanding of risk factors for internet addiction. The goal of this study is to compare factors of two models and to identify the predictive power of a combination of two models for the Internet addiction.

V. METHOD

A. Participants

This research selected 215 students from public universities in Taiwan as its subjects, including 111 male students, and 104 female students. All schools were selected to represent a broad mix of social class backgrounds.

B. Procedure

The research was conducted by means of a paper-pencil initial questionnaire that the students filled out during school hours (about 30 min in total. Participants completed the measures during regularly scheduled class periods. Before completing the questionnaires, the aim of the study were explained, highlighting that participation was voluntary and anonymous. Next, instructions about how to complete the questionnaires were read out.

VI. MEASURES

A. Negative Emotion Regulation Strategies for Children

Emotional venting was an 8 item subscale of Negative emotion regulation strategies for children (NERSC). The NERSC was used to assess strategies children used to regulate after experiencing negative emotions. The NERSC is a 36-item self-report measurement with six subscales: emotion awareness, emotion expressive, emotion inhibition, emotion venting and aggressive, emotion switch and acceptance [34].

The answer categories for each of the items range from 1 [rarely] to 7[always]. Moderate internal reliability of emotion venting subscale has been previously established ranging from .83 -.87 and test-retest reliability ranging from .73 to .81 among 11 to 14 years old children. The internal consistency of emotion venting subscale was .83 in the current study.

B. The Chinese version of Internal-External Locus of Control Scale for Children (CNS-IE)

CNS-IE is a self-report scale consists of 21 yes-no items which is widely used to measure locus of control in children and adolescents [35]. The Chinese version of CNS-IE was translated by Li and Lopez (2004) and have shown internal consistency and test-retest reliability. The internal consistency of emotion venting subscale was .81 in the current study.

C. Compulsive Internet Use (CIUS)

Compulsive internet use (CIUS) is a scale which designed to assess the severity of compulsive internet use [36]. CIUS contains 14 items ratable on a 5-point Likert scale and showed good factorial stability across time and across different samples. The internal consistency is high (.89~.90) and has good construct validity. The internal consistency of emotion venting subscale was .92 in the current study.

VII. RESULTS

A. Preliminary Analysis

Means, standard deviations, and estimates of skew and kurtosis for each variable are reported in Table I.

TABLE I
MEANS, STANDARD DEVIATIONS, AND SKEW AND KURTOSIS ESTIMATES FOR THE MEASURES

| | M | SD | Skew | Kurtosis |
|----|-------|-------|------|----------|
| EV | 22.0 | 10.28 | .84 | .05 |
| LC | 7.65 | 4.48 | .48 | -.58 |
| ID | 20.65 | 14.50 | .46 | -.72 |

Note. EV=emotion venting, LC= Locus of control, ID=internet addiction

B. Gender

ANOVAs were used to evaluate whether gender was related to each of variables, with alpha set at 0.05 to reduce the problem of type 1 error. There were significant differences were found for all variables. Male students use emotion venting strategy more than female students (Mmen=23.42, Mwom=20.54, $F(1, 213)=4.29$, $P=0.04$), have less locus of control than female (Mmen=8.30, Mwom=6.95, $F(1, 213)=5.00$, $P=0.03$), and report more syndromes of internet addiction (Mmen=24.32, Mwom=16.73, $F(1, 213)=15.69$, $P=0.00$) (Table II).

TABLE II
COMPARISON OF MEAN VALUES OF BOYS AND GIRLS

| | | M | SD | F | P |
|----|-------|-------|-------|-------|-----|
| EV | boys | 23.42 | 10.7 | 4.29 | .04 |
| | girls | 20.54 | 9.57 | | |
| LC | boys | 8.30 | 4.55 | 15.69 | .03 |
| | girls | 6.95 | 4.31 | | |
| ID | boys | 24.32 | 14.58 | 15.69 | .00 |
| | girls | 16.73 | 13.41 | | |

Note. EV=emotion venting, LC= Locus of control, ID=internet addiction
* $p < .05$ ** $p < .01$

C. Intercorrelations between Variables

Table III presents the intercorrelations between the measures of variables. As expected, emotion venting was related to higher locus of control scores and higher internet addiction syndrome scores. The correlations are modest to small, indicating that the measures are in principle distinguishable from each other.

TABLE III
INTERRELATIONS BETWEEN MEASURES OF VARIABLES

| | EV | LC |
|----|-------|-------|
| EV | | |
| LC | .32** | |
| ID | .51** | .37** |

Note. EV=emotion venting, LC= Locus of control, ID=internet addiction
* $p < .05$ ** $p < .01$

D. Step Regression Results for Relation between Emotion Venting and Job Performance Controlling for Locus of Control

Stepwise regression analyze was conducted to assess the correlation between emotion venting and internet addiction. The first step of the analyses entered locus of control into the model, followed by emotion venting strategy in step 2. The data supported that emotion venting strategy was positively associated with internet addiction and the finding remains significant after controlling the explanation variance of locus of control.

TABLE IV
STEP REGRESSION ANALYSES PREDICTING INTERNET ADDICTION SYNDROME

| | β | t | ΔR^2 | β | t | ΔR^2 |
|--------|---------|--------|--------------|---------|-------|--------------|
| Step 1 | | | | | | |
| LC | .37 | 5.83** | .13** | | | |
| Step2 | | | | | | |
| LC | | | | .23 | 3.82* | .31* |
| | | | | | * | * |
| EV | | | | .44 | 7.31 | |

Note. EV=emotion venting, LC= Locus of control, ID=internet addiction
* $p < .05$ ** $p < .01$

VIII. DISCUSSION

This present study uses an integrative approach to study the relationship between personal psychometric variables and internet addiction as assessed by two models. The main finding is that both control model and emotion regulation model

demonstrate significant power in prediction internet addiction. Emotion venting was the variable with highest amount of explained variance: 44% predicting variance of internet addiction. In addition, control model contributed to 22% variance of internet addiction.

Comparing these two models based on predictive power for internet addiction suggests that emotion regulation model has more power in the explanation of internet addiction. Emotion regulation model was about two times more powerful in the prediction of internet addiction. The results showed the combination of two models had more power in the explanation of internet addiction. In conclusion, the study demonstrates the relevance of two models in the explanation of internet addiction. The study also provides a framework for signify divers risk pathways of internet addiction.

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