International Journal of Technical Research and Applications e-ISSN: 2320-8163,
www.ijtra.com Special Issue 26 (August, 2015), PP. 5-9

VOLITION TOWARDS INTIMATE PARTNER VIOLENCE: A THEORETICAL CONSTRUCT AND EMPIRICAL EVALUATION

Suzila Ismail[1], John Maltby[2], Ruth Hatcher[3]
[1,2,3]School of Psychology, University of Leicester, Leicester LE1 7RH, UK
sbi2@le.ac.uk;jm148@le.ac.uk;rmh12@le.ac.uk
[1]Universiti Utara Malaysia, Sintok 06010 Malaysia

Abstract **Concerning on the rise of perpetrating of intimate partner violence (IPV) cases, this study aims to investigate the volition towards IPV among civil servants in Malaysia. The 11-item measure was developed using the concept of volitional help sheet and adapted from the Conflict Tactics Scale 2 of Straus et al. (1996). Exploratory (n=315) and confirmatory (n= 498) factor analytic studies suggest 1-factor structure with adequate model fit. The reliability assessment also found satisfactory. The current findings add to the IPV literature, particularly on the volition of IPV**

***Index Terms*— intimate partner violence, reliability, exploratory factor analysis, confirmatory factor analysis, questionnaire**

I. INTRODUCTION

Intimate partner violence (IPV) also known as relationship violence or domestic abuse (Barner and Carney, 2011) in Malaysia is a serious concern (Department of Social Welfare, 2013). It is demonstrating by the number of IPV cases reported from January to September 2014 which increased by 43.6 percent to the 3673 cases reported on 2013 (Ng, 2014) which is understandably why most of the researchers constantly focusing to study on the aftermath of the IPV incidents. There is an important aspect to be considered, which is the intention of the action. Behaviour is guided by intentions (Ouellette and Wood, 1998) which in this context of study, intentions is used to predict partners' abused (Betts, Hinsz and Heimerdinger (2011). There has been a study aimed at early detection and prevention of IPV in Malaysia, however, the result is limited to female adult patients that attend health centres (Wong, Dr PH, and Sajaratulnisah, 2008). The current trend has shown that many researchers turned to study volition rather than intention as volition offers better measurement to predict action. Volition can be defined as a cognitive process of human capability to start an action, an act of will to decide and strive towards goals and expectations and internally generated (Haggard and Lau, 2013; Frith, 2013). Studies on volition in western countries mostly focusing on the positive sides of human volition to live better life (Berli, Ochsner, Stadler, Knoll, Hornung and Scholz, 2014; Armitage and Arden, 2010; Armitage, 2008; Scholz, Nagy, Schuz and Ziegelmann, 2008; Chatzisarantis, Frederick, Biddle, Hagger and Smith, 2007; Milne, Orbell and Sheeran, 2002). So far, a study by Martens, Kosloff, and Jackson (2010) on a bug-killing paradigm, paradoxically, found a motivation to kill proven that volition can urge the dark side of human. Similarly, this study attempts to identify the negative side of human through testing the volition measure among potential IPV perpetrators.

The questionnaire proposes to test volition to perpetrate IPV was generated based on the concept to test using volitional help sheet by Armitage (2008), Armitage and Arden (2010) and Arden and Armitage (2012). These studies were focusing on motivational effects of volition. The implementation intention-based interventions using volitional help sheet have allegedly proven to reduce binge drinking by 39.5% (Arden and Armitage (2012), reduced smoking (Armitage (2008) and to increase physical activity (Armitage and Arden, 2010). These researchers had tested implementation intention of linking memory in a critical situation (e.g. '*If I am tempted to smoke when I am desiring a cigarette)* with appropriate behavioural responses (e.g. *then I will tell myself I can quit if I want to'*) resulting as '*If I am tempted to smoke when I am desiring a cigarette then I will tell myself I can quit if I want to'*. Reasonably, if the sentence is change from the behavioural response to the critical situation, it performs the similar meaning. For example, *I will tell myself I can quit if I want to, if I am tempted to smoke when I am desiring a cigarette'.* Therefore, this study attempts to achieve implementation intentions by linking an appropriate behavioural response to critical situations. Thus, the example for the item to measure volition for IPV is '*I will insult or swear at my partner if I have an argument with my partner'* (adapted from the Conflict Tactics Scale 2 by Straus, Hamby, Boney-McCoy and Sugarman, 1996). CTS2 administration and scoring has been proven to be applicable to participants with lower level education, diverse ethnic group, flexibility whether to test perpetrators or victims, and concisely revised with the internal consistency reliability ranges from .79 to .95 (Straus et al., 1996). Therefore, this study aimed to develop and assessed a scale that measure volition of IPV based on studies on volitional help sheet to reduce binge drinking and to quit smoking (Arden and Armitage (2012; Armitage, 2008) combined with CTS2 (Straus et al., 1996).

Study 1

A. METHOD

Samples

The first data sample comprised civil servants were collected from several ministries located in Putrajaya, Malaysia. Putrajaya was chosen as it was the location of all the headquarters of the main government agency. The first sample was used for an exploratory factor analysis (EFA). A total of 315 of government servants (120 males and 195 females) with the largest of the participants being an origin (Bumiputra) ethnic (n = 292) while the majority of religion were represented by Muslims (n = 282). Participants were adults, age 18 years old and above, not blind (have normal or corrected-to-normal vision) and fluent in English and Bahasa Malaysia. Overall, there were 348 questionnaires were returned; only 315 (90 percent) were fully completed and satisfied the researcher. There were 33 participants completed halfway through the questionnaires, so were excluded from the study.

B. Measures

There were two sections included in the questionnaire. Section A represented fifteen (15) particulars for demographic background which consists of gender, ethnic, age, marital status, secondary school background, academic qualification, religion, total approximate monthly income, profession, partner's profession, permanent resident, physical/health status, frequency of alcohol consumption, amount of every alcohol consumption and information on any counselling session attended (yes or no answer). Section B represented 11 items of volition to perpetrate IPV.

Ethical Consent

The study received ethical approval from the university's Psychology Ethics Board and the Economic Planning Unit that stands as a gatekeeper for any data sample to be collected in Malaysia. The participants were given a consent form if they agreed to participate or were permitted to leave the survey. The consent form encompassed the nature of the study, maintaining anonymous for the data provided, to withdraw during and after participation, data storage and discarding, and contact information for participants if they require the research results.

Procedure

Participants were tested individually in a small room at their workplace. Every participant was given five minutes to complete the questionnaire. The confidentiality was ensured by instructing the completed questionnaire through a slit in a locked box in the room. The researcher waited outside the room for the participant to finish. Participants' manager was not in present during completion of the questionnaires. Participants were not identifiable by name or job's position except by a number.

Analysis

SPSS 20.0 for Windows was utilised for this study. Preliminary analysis was taken and the data were found to be positively skewed and fell outside -1 and +1 which can be concluded that the normality of the data was assumed violated. Positive skew distributions were expected as this sample was not necessarily intentionally committing violence. Transformation of the data was unneeded prior to analysis as the principal-axis EFA would be sufficed (Fabrigar, Wegener, McCallum and Strahan, 1999).

The factorability of items was determined by assessing Kaiser-Meyer-Olin (KMO) Measure of Sampling Adequacy. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy measures the distribution of values in the matrix to determine whether it is suitable to conduct factor analysis. Bartlett's Test of sphericity (p-values) examines whether the variables in the population are uncorrelated (Hair *et al*., 2010). Inspection on eigenvalues, scree plot and parallel analysis is important to determine the number of factors. Rotation is used to improve the interpretation of factors. It assists to maximize loadings of every variable to the extracted factors while minimizes loadings on all other factors. Promax rotation was utilised in this study considering theoretical grounds that the underlying factor could be related (Field, 2010). The principal axis factoring was utilised considering the data were non-normal distributed.

C. RESULTS

Result of KMO measures of sampling adequacy = 0.932; Bartlett's Test of Sphericity, x^2=5019.332, df =55, $p < 0.001$). EFA result for KMO and Bartlett's Test of Sphericity proposing satisfactory factorability for all items in line with recommendations value between 0.8 and 0.9 (Kaiser , 1974) and a Bartlett's Test below 0.05 suggests satisfactory factorability for all items (Hair *et al*., 2010).

Parallel analysis was used to calculate 315 of subjects with 11 variables and 1000 replications datasets. One factor with eigenvalues above 1 with variance 8.43 exceeded the random eigenvalue from the parallel analysis (1.31). The scree plot also displayed a clear change on one factor. Therefore, one factor solution was identified and further inspection on meaningful loadings was carried out. The bold figures represented items with very good and excellent loadings. The results were presented in table 1.

Table 1

Extraction Method: Principal Axis Factoring with Promax Rotation of Volition Items

Item Description	Factor Matrix Factor 1
Item1 –I will insult or swear at my partner	**0.666**
Item2 – I will shove my partner	**0.788**
Item3 – I will use a knife or gun on my partner	**0.897**
Item4 – I will call my partner fat or ugly	**0.855**
Item5 – I will destroy something belong to my partner	**0.810**
Item6 – I will choke my partner	**0.941**
Item7 – I will slam my partner against a wall	**0.948**
Item8 – I will beat up my partner	**0.917**
Item9 – I will use threats to make my partner have oral or anal sex	**0.889**
Item10 – I will burn my partner on purpose	**0.925**
Item11 – I will threaten to hit or throw something at my partner	**0.953**

Source: Developed by the researcher for the current study.

The PFA result showed eleven items clearly loaded on one factor with all items achieve meaningful loadings. According to Tabachnick & Fidell (2007), the criteria of meaningful loadings are as follows: 0.32 (poor), 0.45 (fair), 0.55 (good), 0.63 (very good) or 0.71 (excellent).

STUDY 2

D. METHOD

Samples

Sample 2 comprised 498 civil servants (190 males, 308 females) collected from different ministries from sample 1 but also located in Putrajaya, Malaysia. The largest of the participants being an origin (Bumiputra) ethnic (n = 414) while the majority of religion were represented by Muslim (n = 410). Participants were adults, age 18 years old and above, not blind (have normal or corrected-to-normal vision) and fluent in English and Bahasa Malaysia. Overall, there were 525 questionnaires were returned; only 498 (95 percent) were fully completed and satisfied the researcher. There were 27 participants completed halfway through the questionnaires, so were excluded from the study. The second data sample was used for a confirmatory factor analysis (CFA).

E. Ethical Consent

The study received ethical approval from the university's Psychology Ethics Board and the Economic Planning Unit that stands as a gatekeeper for any data sample to be collected in Malaysia. The participants were given a consent form if they agreed to participate or were permitted to leave the survey. The consent form encompassed the nature of the study, maintaining anonymous for the data provided, to withdraw during and after participation, data storage and discarding, and contact information for participants if they require the research results.

F. Procedure

Participants were tested individually in a small room at their workplace. Every participant was given five minutes to complete the questionnaire. The confidentiality was ensured by instructing the completed questionnaire through a slit in a locked box in the room. The researcher waited outside the room for the participant to finish. Participants' manager was not in present during completion of the questionnaires. Participants were not identifiable by name or job's position except by a number.

G. Scale

The questionnaire from Study 1 was utilised for this study. All the sections were maintained except for two particular backgrounds in Section A. Two particulars were removed which were alcohol consumption and frequency of alcohol consumption because of the feedback from the majority of the participants in Study 1 that they prefer the question to be removed from the questionnaire. Section B represented 11 items of volition to perpetrate IPV.

H. Analysis

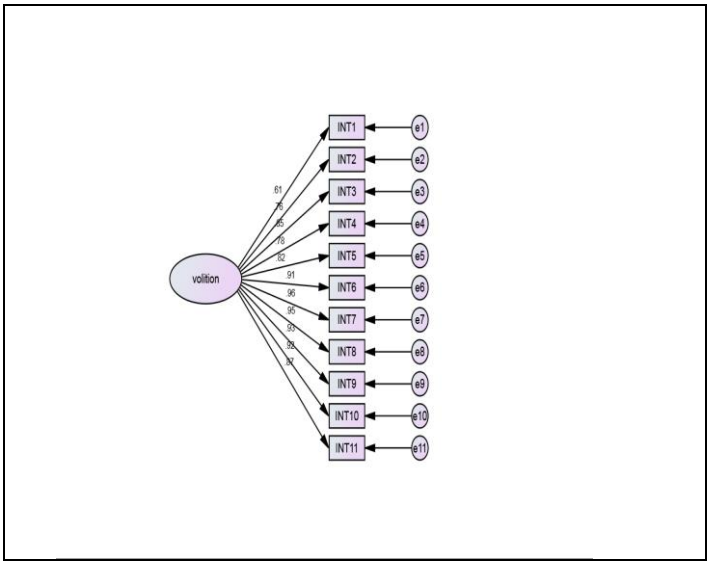
AMOS 22 software was employed to perform CFA in this study in order to assess the structural validity of the one-factor interpretation of volition of IPV measures. The model was tested for goodness-of-fit. The one-factor model suggesting all 11 items loaded on one factor indicating an underlying latent factor structure of IPV volition.

I. RESULTS

The initial results of the CFA for the measurement model indicated the chi-square (χ^2) = 552.300, degree of freedom (df) = 44, chi-square rated (Chi-square/df) = 12.552, which corresponds to not very satisfactory model fit (Hair *et al*., 2010). According to Hu and Bentler (1999), a good model fit describes as follows: Chi-square/df lower than 3 is good, P-Value lower than 0.5 suggests problems with the fit. The $\chi 2$ related with the model is significant, $\chi 2$ (44, N=498) =552.300, p=0.000, which proposes that the model is not consistent with the observed data. Tucker-Lewis Index (TLI) suggested higher values that approach to 1 as better fit than lower value, Comparative Fit Indexes (CFI) with values above 0.90 are considered well fits model and lower Root Mean Square Error of Approximation (RMSEA) values indicate a better fit (Hair et al., 2010).

The Comparative Fit Index (CFI) = 0.925, the Tucker-Lewis Index (TLI) = 0.907, SRMR = 0.035 and the Root Mean Square Error of Approximation (RMSEA) = 0.152. The CFI and TLI values were greater than 0.90 which were acceptable. However, RMSEA resulted over 0.08 which suggested a poor fit (Perugini and Conner, 2000). To achieve model fit, items with high modification indices were set as free parameter estimate and the measurement model has to be re-specified for six times involving e1 and e2, e2 and e3, e1 and e4, e2 and e4, e6 and e11 and finally e5 and e6 until the results appeared acceptable as follows: chi-square = 146.053, df = 38, chi-square rated (Chi-square/df) = 3.84, $p < 0.001$, CFI = 0.984, TLI = 0.977, RMSEA = 0.076.

Figure 2: Confirmatory Factor Analysis of the Eleven-item version
of the Volition of Intimate Partner Violence



All items were further tested for the reliability analysis. The Cronbach Alpha demonstrated 0.968 with M = 14.77, SD = 6.395 and variance 40.898 which showed a satisfactory result that exceed both internal and reliability criteria of $0.6 \leq \alpha < 0.7$ as acceptable and $\alpha > 0.7$ as good (Kline, 1999; Nunnally, 1978).

DISCUSSION

The validity and reliability of the items tested produced a satisfactory result consistent with previous research by Straus et al. (1996). The confirmatory factor analysis confirmed an adequate model fit which is an important development to measure volition of IPV.

The current sample offers an adequate baseline to be compare with future research, however, it requires a further validation with different population particularly, IPV offenders (inmates) and also can be tested to young adolescences for the purpose of prevention is better than cure.

Future research should focus on different aspects, for example, financially or socially towards IPV with considering the cultural perspectives.

In summary, the present study highlighted the limited knowledge regarding the prediction of IPV, particularly in Malaysia. This study offers an initial consideration of the reliability and validity of the measure of volition of IPV.

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