Evaluation of the Facilitated In-house Recovery Education (FIRE) Treatment Programme for Substance Abusers

WE CARE Community Services Singapore
Prem Kumar Shanmugam and Associate Professor Munidasa Winslow

Abstract

Introduction and Aims
This study is an evaluation of outcomes of an integrated psychosocial treatment programme – Facilitated In-house Recovery Education (FIRE). FIRE is conceptualized based on the psychological and social models influencing substance dependency. These models are driven by three theories mainly: Social Learning Theory (Bandura, 1977), Theory of Planned Behaviour (Ajzen, 2002; 1991; 1987) and The Allostasis Theory (Koob 2003). The main goal of treatment is to assist substance abusers who have experienced incarceration achieve recovery from dependency with the aid of psycho-educational topic discussions and structured group counselling sessions. The research objectives of this evaluation are: to identify if psycho-education discussions and structured group counselling assist in creating an awareness of the negative repercussions of substance abuse and dependency, to examine the reduction of negative emotional states of depression, stress and anxiety among the participants after they attend FIRE.

Design and Methods
The outcome of the research study is measured by: achievement tests conducted at pre and post treatment and the Depression, Anxiety and Stress Scale (DASS21) (Lovibond & Lovibond, 1995). Twenty eight volunteers (N=28) diagnosed with substance dependency were identified from Halfway Houses meeting the pre-determined inclusion criteria. A pre and post within subjects design was employed as the methodology with the three month treatment programme. The repeated measures t-tests was used for statistical analysis with the application of the Predictive Analytic Soft Ware (PASW), formerly known as SPSS Statistics 17 (Statistical Package for the Social Sciences) (Kinneir & Gray, 2010).

Key words: substance abuse, treatment programme, depression, anxiety and stress.

Introduction
Cottler (1993) described substance dependents as having a behaviour, which they have impaired control over. This behaviour leads to harmful consequences while causing severe medical, psychological and social harm (West, 2001). The impulsive conduct gradually become a harmful pattern of abuse and the dependents find themselves unable to stop the behaviour on their own (Heather, 1998). Miller and Carroll (2006) explain substance dependency as a product of interaction between various models and may not be solely dependent on one particular model.
The researcher proposes to evaluate the outcomes of FIRE on substance dependency and it may not be possible to measure the biological influences. The programme is conducted by WE CARE Community Services Singapore. WE CARE is the only drug centre treating substance and behavioural dependents in Singapore. It was incorporated in 2005 as a not for profit organization. Psychosocial treatment programmes and counselling sessions are held daily in the centre by addiction counselling trained professional staff. FIRE integrates both psychoeducational and structured group counselling sessions as part of the treatment. Nineteen short lectures are utilised to deliver the educational components on the negative repercussions of substance dependency over a period of three months. Each session lasts for two hours incorporating a brief lecture followed by a structured group counselling session. During the sessions, psychological and social influences leading to and reinforcing substance dependency are discussed. It is expected that the awareness of the high risk factors and its repercussions would trigger change intentions for prominent recovery support agencies are: Singapore After Care Association (SACA) - where ex-convicts can seek temporary assistance in obtaining employment; WE Care Drop In Centre - where substance dependent people can seek counselling, moral support and are able to attend self-help groups to fit into the recovering social network; Singapore Anti-Narcotics Association (SANAA) - where substance dependent people in recovery can seek assistance for employment, housing, temporary financial assistance and counselling services.

**Method**

**Participants**

Twenty eight participants were identified from halfway houses. The inclusion criteria were: (i) served prison or drug rehabilitation sentences under the misuse of drugs act or served LT1 (a minimum of five to seven year prison sentence), (ii) experienced relapses with substance dependency (iii) able to converse and write in English and have a minimum of Primary Six education, (iv) received a principal DSM IV-TR (American Psychiatric Association, 2000) diagnosis of dependence and (v) free of any acute co-morbid disorders.

FIRE incorporates resilience-building characteristics by instilling social bonding, social control and peer monitoring in the participants. Facilitators stress on the development of positive relationships with the emphasis on trust and honesty.

their study with socially anxious high risk taking drug addicts concluded that "socially anxious individuals could be hypothesized to benefit from psychosocial treatments designed to help them improve their social skills and to develop alternative coping mechanisms...." (p. 930). This extensive evidence created the strong drive and need to evaluate the FIRE psychosocial treatment programme as the goals of FIRE is to reduce the negative emotional states of depression, anxiety and stress while increasing knowledge of the negative repercussions of substance dependency. This proposal is thus an evaluation study of the FIRE programme and not so much as to prove the efficacy of treatment.

**Facilitated In-house Recovery Education**

FIRE is derived and based on the psychological and social models of substance dependency. For the purpose of this study, the biological influence, as originally proposed by Miller and Carroll (2006) is not incorporated.

Design

This evaluation study will adopt a pre and post, within subjects approach to evaluate treatment outcome of the FIRE programme (which is the independent variable) on the dependent variables: (i) reductions in the self-reported levels of depression, (ii) reductions in the self-reported levels of anxiety (iii) reduction in the self-reported levels of stress and (iv) knowledge gained on the negative repercussions of substance dependency. Pre and post treatment measurements will be conducted individually on the participants of the FIRE treatment programme and the results will be evaluated to measure the significance of treatment.

**Materials**

The Depression, Anxiety and Stress Scale (DASS21) (Lovibond & Lovibond, 1995) to measure the self-reported levels of depression and stress and the achievement test to measure knowledge gained on the negative repercussions of substance dependency.
Pilot study
A pilot study with sixty volunteers was conducted to ensure the measurement tool was valid and reliable to be administered with the local population. Results of the pilot study revealed high internal consistency (Depression, Anxiety and Stress Scales revealed high internal consistency with Cronbach's alpha, .57, .78 and .78 respectively). Participants declared that questions on the measurements were easy to understand and they were able to answer them without any help.

Results
The mean latency for depression pre-treatment (M=13.18, SD=10.92) was greater than the mean for post treatment (M=8.53, SD=6.71). A paired sample t test showed significance beyond the .05 level: t (27) = 2.45; p = .02 (two tailed).

The mean latency for anxiety pre-treatment (M=6.0, SD=4.20) was greater than for post treatment (M=5.68, SD=4.05). A paired sample t test did not show significance beyond the .05 level: t (27) = .40; p = .66 (two tailed).

The mean latency for stress pre-treatment (M=14.93, SD=10.33) was higher than for post treatment (M=11.71, SD=8.16). A paired sample t test did not show significance beyond the .05 level: t (27) = 1.35; p = .19 (two tailed).

The mean for the achievement test pre-treatment on the other hand, (M=12.11, SD=3.14) was lower than for post treatment (M=17.10, SD=2.74). A paired sample t test showed significance beyond the .05 level: t (27) = -3.87; p = .00.

Discussion
Overall the evaluation study seemed to reveal reductions in the self-reported levels of depression and an increase in the knowledge acquired on the negative repercussions of substance dependence.

The findings revealed that there were no significance in treatment for the self-reported levels of anxiety and stress. However the mean for both anxiety and stress levels were higher pre-treatment when compared to post-treatment. This could be due to the fact that treatment was only for a short period of time before any actual impact on anxiety and stress could take place.

Limitations of the study
One of the limitations of the study was participant size. A larger population could have helped make the results more generalizable but as this was a programme evaluation, results are helpful for fine tuning the programme format.

Other limitations are that the measurement tools were self-administered, participants consisted of a mixed group with various demographics and educational levels.

Inclusion of a control group would have helped enhance validity of the results obtained from the study. The changes observed could have been influenced by extraneous variables which were not controlled.

Acknowledgements
This work was supported by a grant from the Yellow Ribbon Fund of the CARE Network of Singapore. The CARE network was set up in 2000 after recognising a common goal to aid and rehabilitate ex-offenders by pulling resources and expertise.

References


