The Effects of Neuro-Linguistic Programming Counseling on Anti-retroviral Adherence of People Living with HIV/AIDS (PLWHA)

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ABSTRACT

HIV/AIDS has become a lifelong treatment with the advancement of anti-retrovirus therapy (ART). The purpose of this study was to study the effect of Neuro-Linguistic Programming (NLP) counseling program on PLWHA who were receiving ART. The sample consisted of 64 PLWHA who were receiving ART for at least one year, whose physician had diagnosed them as having poor ART adherence and receiving a score of ≤ 90% on Wantana's self-report adherence evaluation sheet 2004. The group was divided into two groups of 32 people by a process of simple random sampling. The experimental group received general advice and the NLP counseling program, while the control group received the general advice from the servicing clinic. The research design was a pretest-posttest experimental group design, including follow-up testing after 2 months. The data were statistically analyzed by utilizing a repeated measures analysis of variance. The results revealed that the interaction between the methods and the duration of the experiment was found to be significant ($p < .01$). The PLWHA who received the NLP counseling demonstrated significantly higher ART adherence than the control group in both the posttest and follow-up phases ($p < .01$). The PLWHA in the experimental group had significantly higher adherence in the posttest and follow-up phases than the pretest phase ($p < .01$). Thereafter the NLP counseling could be used for the health service clinic which saved time and effectiveness, are needed.

Keywords: Neuro-Linguistic Programming, Counseling, People Living with HIV/AIDS (PLWHA), Antiretroviral drug

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INTRODUCTION

HIV/AIDS has been a lifelong treatment with ART. In 2006, countries around the world spent $US 8.3 billion for ART of PLWHA[1,2,3]. In 2008, the Thai Government increased the amount spent for the ART treatment to 4.382 billion Baht[4] ($US 0.146 billion), because of the new patients who were able to access to the treatment and the patients whose drug resistance had significantly increased. Adherence is one of the essential factors for the effective and successful control of HIV/AIDS. PLWHA are required to achieve 90 – 95% adherence in order to maintain the effectiveness of the medicines which control the virus, and to reduce the possibility of drug resistance[5]. Some PLWHA who are on ART do not adhere to their medication. One of the strategies that promote patients to achieve ART adherence is counseling. However, some technique of counseling need 9 - 10 sessions[6,7], consequently, patients cannot participate for all session according their personal reasons. Thus, it would be beneficial if there is brief counseling intervention.

Neuro–linguistic programming (NLP) is a counseling theory that helps to solve the problem of time constraints on an effective counseling, because in some cases it might require shorter time, that is only three minutes of counseling or 2 sessions at the most. This type of counseling is very effective for the patients who are not willing to reveal their problems to the health professionals. NLP aims to provide other options to the patients. At least three components are usually offered to the patients in order to change their inner world (i.e., how they think, feel, know)[8]. NLP has many techniques such as Global Anchoring (GA), Global Unconscious Reframing (GUR), Visual Kinesthetic Disassociation (VKD) and Future Planner (FP), etc. which applied for different counselee's problems. The GUR technique is appropriate for adjust, develop and change behavior, and it is more effective if GUR technique combine with the FP technique[9]. Therefore, GUR and FP techniques will help PLWHA to identify his/ her real problems, the positive intention behind patient's thoughts, feelings, and behaviors that make him/ her do not adhere to taking his/ her medication. Then, the unconscious mind will help the PLWHA identify the appropriate alternative in order to enhance his/ her ART adherence, and, FP technique will help PLWHA to understand and have the intention of taking medicine.

The purpose of this research was to study the effects of counseling with the GUR and FP techniques based on NLP theory, on the adherence of PLWHA who were receiving ART medication. The benefits of this study were aimed at providing an alternative method for counselors in order to achieve appropriate and effective counseling outcomes for PLWHA, such as enhancing their adherence to ART, reducing the possibility of drug resistance and promoting a better quality of life.

METHODS

The participants, consisted of 64 PLWHA, were receiving ART in Chonburi Hospital, Chonburi Province, Thailand, in 2006–2007. The adult subjects (20 – 60 year of age) who qualified for participation in the study were individuals who had been receiving ART for at least one year, whose physician had diagnosed them as having poor ART adherence, having an education background of at least primary level schooling, able to read and write, able to communicate well in Thai, and who received a score of ≤ 90% on Wantana's self-report adherence evaluation sheet 2004[10]. The group was divided into two groups; control and experimental. Each group was composed of 32 persons by a process of simple random sampling. Both group had the same general advice from health care peer including medication advice from the physicians, pharmacists or nurses according to the individual clinic standards. After being administered Wantana's self-report adherence evaluation sheet 2004, the experimental group received the NLP counseling for 2 sessions which was modified by the researchers[8 9]. The first session is Global Unconscious Reframing technique for 50 minutes/person, and the second session is Future Planner techniques for 50 minutes/person.

The research design was a pretest-posttest control group design, including follow-up testing after 2 months. The data were statistically analyzed by utilizing a repeated measures analysis of variance[11].

RESULTS

The PLWHA who received the NLP counseling demonstrated significantly higher ART adherence than those who received no counseling in the control group at both the post-test and follow-up phases, as shown in the Table and the Figure below:

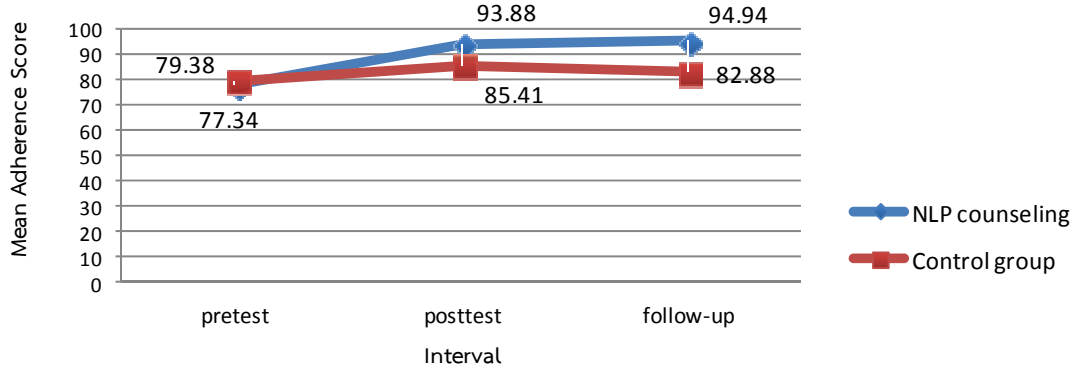
Table The variance analysis of the mean ARV adherence score (Method X Interval)

Source of variation	*df*	*SS*	*MS*	*F*	*P*
Between subjects	63	9355.14			
Groups	1	1825.33	1825.33	15.03**	.00
Ss w/in groups	62	7529.81	121.45		
Within subjects	100.75	12897.33			
interval	1.57	5099.57	3239.18	51.99**	.00
I x G	1.57	1716.26	1090.14	17.50**	.00
I x Ss w/in groups	97.61	6081.50	62.31		
Total	**163.75**	**10945.14**			

**p <.01

The results revealed that both the treatment effect and the duration of the experiment effect were found to be statistically significant at the .01 level. The PLWHA who received the NLP counseling demonstrated significantly higher ART adherence than those who received no counseling in the control group at both the post-test and follow-up phases. It appears that method of counseling with NLP techniques and interval affected to improve the PLWHA for taking ART adherence behavior.

Figure The diagram shows an adherence average score between NLP counseling group and control group simple effect



The mean ARV adherence score of the experimental group intended to complete the computer statistics test was 79.38 scores on the pretest; 93.88 scores on the posttest; and 94.94 scores on the follow up test respectively, while the control group scores were 77.34, 85.41 and 82.88 on the pretest posttest and follow up test. The one-way repeated-measures ANOVA shows that these adherence score are significantly different, the experimental group had higher mean scores than the control group at posttest and follow up phases. The PLWHA in the experimental group had significantly higher adherence in the post-test and follow up phases than in the pre-test phase.

Therefore, the AIDS/HIV patients who were receiving ART and the NLP counseling with Global Unconscious Reframing and Future Planner techniques adhered to the ART medications guidelines in order to maintain the effectiveness of the medicines to control the virus and to prolong the possibility of drug resistance. The experimental group had a higher adherence rate than those patients in the control group. Although the control group increased its adherence score, it was not more than the 90% or higher adherence rated required for effective treatment of HIV/AIDS. Finally, their adherence score decreased slightly in the follow-up phase.

DISCUSSION

The result from this study demonstrated that The NLP counseling had been effective in increasing the ART adherence ≥ 90 % of those who had received the counseling with GUR and FP techniques which took the patient relax and go back to trance stage for finding their resource options to change their inner world (i.e., how they think, feel, know) in order to maintain the effectiveness of the medications to control the HIV virus. NLP counseling had a statistically significant effect in increasing to ≥ 90 % of the ART adherence, both at the post-test immediately following the counseling and at the two months follow-up phase when compared with the regular control treatment. While the other counseling techniques[6 7]were spent longer time with the 9 to 10 sessions; this study took only 1 to 2 sessions.

This finding was interpreted as a brief counseling technique was beneficial to maintain the adherent of ART in Chonburi HIV/AIDS patients. The NLP is the new counseling technique which is not only unused in HIV/AIDS patients but also never found using in Thailand.

Therefore these technique can be apply to HIV/AIDS patients for maintaining of ART adherence.

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