

Response to the Editor: The Essential Component of Clinical Trials' Reports

Manyat Ruchiwit^{1,*}

¹Department of Mental Health and Psychiatric Nursing, Faculty of Nursing, Thammasat University, Klong Luang, Thailand

*Corresponding author: Manyat Ruchiwit, Department of Mental Health and Psychiatric Nursing, Faculty of Nursing, Thammasat University, Klong Luang, Thailand. Tel.: +66-29869324, Fax: +66-29869325, E-mail: ruchiwit@yahoo.com

Received: July 26, 2013; Accepted: July 31, 2013

Keywords: Quasi-experimental research; Randomized block design; Matched pairs; Differences; Extraneous variables

Dear Editor,

Referring to the letter you sent to me, I would like to explain more about the research study and its results, "Effects of a three-stage intervention program on the holistic health status of patients with drug addiction after discharge". I do understand that a well-designed experiment includes design features that allow researchers to eliminate extraneous variables as an explanation of the observed relationship between the independent variable(s) and the dependent variable.

In this study, the research design was a quasi-experimental research and a matched pairs design, which is a special case of the randomized block design. It is used when the experiment has only two treatment conditions (control and experimental); and participants can be grouped into pairs, based on some blocking variables. For example, in this study, the researcher manipulated one dependent variable, holistic health status, while holding all other extraneous variables constant. Therefore, the control variable was: being discharged from the institution within six months, and matching variables were: gender, age, level of education, and type of drug addiction, which might have affected the holistic status of the subjects according to the literature reviews (1 - 6). Then, within each pair, subjects were randomly assigned to different treatments for the experimental and the control groups. As with other designs, the matched pairs design uses randomization to control for confounding variables, and the sample size (N) of each group in this study was 45 which is larger than 30. However, it should be noted that, unlike the others, this design explicitly controlled for those extraneous variables that might have occurred, such as being discharged from the institution within 6 months, gender, age, level of education, and type of drug addiction,

which were the differences in the baseline variables in the case of no control (Table 1).

Table 1. Socio-demographic Characteristics of the Study Samples

Variables	Case, No.(%)	Control, No. (%)
Gender		
Male	17 (37.8)	17 (37.8)
Female	28 (62.2)	28 (62.2)
Age, y		
15-25	13 (28.9)	13 (28.9)
26-40	26 (57.8)	26 (57.8)
41-60	6 (13.3)	6 (13.3)
Level of education		
Primary school	16 (35.6)	16 (35.6)
Secondary School	24 (53.3)	24 (53.3)
University education	5 (11.1)	5 (11.1)
Type of drug addiction		
Depressants	12 (26.7)	12 (26.7)
Stimulants	31 (68.9)	31 (68.9)
Hallucinogens	2 (4.4)	2 (4.4)

After the experiment, a t-test was applied to see how the change occurred when compared between the experimental and control groups. Unlike the other designs, a significant level of change was tested, and therefore, a pre-test for baseline was not necessary due to the matched pairs being applied, and the differences in baseline variables were already controlled. In addition, this study tested the change (the differences, D1 and D2 of the experiment and control groups) because it is believed that this method helps to protect against the differences that might have been caused by the history and maturity

of the subjects in the pre-post test of both experimental and control groups (7, 8).

Acknowledgements

There is no acknowledgment.

Financial Disclosure

There is no conflict of interest.

References

1. Epstein DH, Preston KL, Stewart J, Shaham Y. Toward a model of drug relapse: an assessment of the validity of the reinstatement procedure. *Psychopharmacology (Berl)*. 2006;**189**(1):1-16.
2. Heiskell LE, Pasnau RO, Kercher EE, Moore GP. Psychological reaction to hospitalization and illness in the emergency department. In: Heiskell LE, Pasnau RO, Kercher EE, Moore GP, editors. *Emergency medicine clinics of North America Psychiatric aspects of emergency medicine*. Philadelphia: W.B. Saunders Company; 1991. p. 214.
3. Ramo DE, Brown SA. Classes of substance abuse relapse situations: a comparison of adolescents and adults. *Psychol Addict Behav*. 2008;**22**(3):372-9.
4. Sexton RL, Carlson RG, Leukefeld CG, Booth BM. Barriers to formal drug abuse treatment in the rural south: a preliminary ethnographic assessment. *J Psychoactive Drugs*. 2008;**40**(2):121-9.
5. Wang J, Simons-Morton BG, Farhat T, Luk JW. Socio-demographic variability in adolescent substance use: mediation by parents and peers. *Prev Sci*. 2009;**10**(4):387-96.
6. WHO. . Broadening the horizon balancing protection and risk for adolescents. 2003; Available from: Available from: http://www.who.int/childdolescenthealth/New_Publication/ADH/WHO_FCH_CAH_01_20.pdf
7. Lo Biondo-Wood G, Haber J. *Nursing research: Methods, critical appraisal, and utilization*. St. Louis: Mosby-Year Book; 2002.
8. Polit DF, Beck CT, Hungler BP. *Essentials of nursing research: Methods, appraisal, and utilization*. 5th ed. Philadelphia: Lippincott 2001.