Some Comments on "the Knowledge, Attitude and Behavior of HIV/AIDS Patients’ Family toward Their Patients before and after Counseling"

Dear Editor,

I did read the paper "The knowledge, attitude and behavior of HIV/AIDS patient's family toward their patients before and after counseling" in a recent issue of IJMS. There are, however, some concerns that I would like to mention here.

In the paper's Abstract, it was better to mention in detail the family members who participated in the study. Also a description should have been provided on the type of the intervention. For example, it had to be made clear whether the intervention was done on individual subjects or was performed on a group on subjects. In Materials and Methods section, the type of the study, which was a one-group semi-experimental pretest/post-test design, was not mentioned. Moreover, in the Acknowledgements section, instead of using "investigation", or "study", the word "survey" was used, which is a different type of study by itself.

No description was provided on the method of counseling. It is not known if the counseling were conducted for single individuals or for a group of individuals. The theoretical basis of intervention, which should have been thoroughly explained in introduction section as well as time, number and frequency of sessions were not clear as well. Moreover, it was not clear if the counseling sessions for children, mothers, fathers, siblings and spouse were the same.

Reliability coefficients for subscales of the questionnaire were not mentioned. Also, the paper could have used more accurate ways to validate the questionnaire rather than using face and content validity. As it can be seen in the attitude section of the questionnaire (table 2), instead of evaluating the families' attitudes toward their patients, items number 2, 3, and 4 evaluated the participant's attitude toward the show that was presented at Behavioral Counseling Center. It would have been better if the attitude dimension of the questionnaire had been measured by rating scales using appropriate scoring system such as the Likert scale. The age range of the participants was 27-53 years; therefore, children as the patients' family members could not have been included in the study as participants. In the results section, the frequency and percentage of spouses, which were a sizeable portion of the participants, were not mentioned.

Since there are no appropriate non-parametric tests for analyzing most of the findings in behavioral sciences research, it is recommended to use parametric tests with strong statistical power, even when the data are discrete (items 8 and 9 in table 1) and do not meet the criteria of normality of distribution and homogeneity of variance. In the section of discussion, there was no an explanation as to why the study was better than similar studies, which had used more accurate designs. Moreover, it was not possible to conclude from the study that counseling had an explanatory role, although such a role had been confirmed in many controlled randomized trials.

The paper indicated that family members were assumed as one individual in the processes. However, it would have been better to evaluate each family member in a separate group, because each group’s responses to intervention and assessment could be different. Therefore, it might not be possible to know that the presented results were applicable to which group of family members. For instance, if children were infants or adolescents, then it remains speculative as how could they help the patient by referring to Behavioral Counseling Center. Therefore, it would have been better to select a more detailed sample so that the results could be generalized to all groups of family members.

In conclusion, although the statistical tests employed were appropriately selected for the type of research design used in the paper, the selected research design was not appropriate for a number of reasons such as the effect of confounding variables including simultaneous events, impact of pretest findings on post-test ones, and statistical regression. Such confounding variables could be a source for extraneous variances, which may prevent the understanding of the relation between changes and independent variable. One-group designs are appropriate when we try to change a confirmed or resisting characteristic, when we are able to remove disturbing factors with a high degree of confi-
B. Najmi

dence, or when we are able to ignore these factors or their effects. However, considering remarkable developments in research and publications in medical sciences, and the judgments of world community about our published papers, we should pay more attention to the design of our studies as well as to the writing of our papers.

Badroddin Najmi PhD,
Department of Psychology,
Isfahan Sciences and Research Branch,
Islamic Azad University,
Isfahan, Iran.
Tel: +98 3116624961
Fax: +98 311 6630119
Email: najmi.sb@gmail.com
Received: 11 January 2011
Revised: 19 February 2011
Accepted: 11 April 2011

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The Authors’ Reply

Dear Editor,

We would like to thank Dr Badroddin Najmi for his comments on our paper published in a recent issue of IJMS.1 The followings are our response to the points raised by Dr. Najmi.

As it was explained in the result section of the abstract, 44% of interviewees had spousal relationship with their patients. The rest of the participants, who were from minor groups, were presented in detail in the text of the paper. In the Materials and Methods section, it was clearly explained that the each interviewee was invited and interviewed separately. Moreover, as it was indicated in the paper, the study was an interventional one. Also, lines 1-7 of the second paragraph of Materials and Methods section read that the interviewees were introduced by HIV positive patients and were included in the study only if they knew about the positivity of HIV status of their patients, and had close and trustful relationships with them. Children couldn’t be subjects for this study. The Materials and Methods section described in details that every participant took part in the study twice at two separate counseling sessions. The theoretical basis of intervention was mentioned in lines 9-16 of the second paragraph of the introduction. Also, the guidelines for counseling were mentioned in lines 25-28 of the second paragraph of this section.

Regarding to the establishment of the face or content validity of the questionnaire, it is believed that the use of expert opinion is among the most popular methods to validate a questionnaire, which covers a highly specialized issue such as AIDS related subjects.1-3 Indeed, there is not a gold statistical method to define the content validity co-efficiency,4 although factor analysis may only help this assessment.5 The face validity and content validity in some areas are mainly based on expert opinion and not statistics.4 However, experts’ opinion about the content validity of an issue may not be definite, or the same.4,6 We used Kuder-Richarson method (KR20) for the estimation of reliability, because the questionnaire items were binary and such as method was appropriate for the evaluation of internal consistency.5 The reliabilities of the knowledge and behavior sections of the questionnaire

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were 0.727 and 0.896, respectively. All items of table 2 in the paper include attitude aspects of HIV patients’ families toward their patients. Items 1, 3, 5 and 6 relate directly to the patients and items 2 and 4 relate indirectly to them by means of intermediates. Table 2 includes binary questions that couldn’t be scored using Linkert Scale. In regards to ages of the participants, the age (mean±SD) of the participants was 40±13 years (range: 27-53 years).

To choose between parametric or non-parametric test is a very difficult and complex decision. In contrast to Dr Najmi’s views behavioral scientists rarely have data meeting the assumption of the parametric tests. The data from behavioral research do not allow the use of parametric tests, since they do not meet the criteria for such tests. Therefore, non-parametric tests play a prominent role in the analysis and of data obtained from investigations in behavioral and social sciences. Moreover, the researchers’ knowledge about the population from which the data are obtained defines which group of tests is appropriate to be used in a study. On the other hand in studies involving large samples it is possible to use non-parametric tests instead of parametric tests. Indeed using parametric or non-parametric tests don’t cause problem in these situations.

In conclusion, it is almost impossible to find a study in which cofounders are totally controlled. Obviously, the before-after design may suffer from the impact that pretest could have on post-test, or from simultaneous events. However, in our study only two months were allowed between pre counseling and post counseling measurements. It doesn’t seem that family members who knew of the HIV status of their patients and revealed a particular behavior toward them for several years could change their behavior significantly as a result of events other than counseling practiced in the study.

Honarvar Behnam1, Mehrab Siadi2

1Department of communicable Disease, 2Department of Data and Statistics, Vice-Presidency for Health, Shiraz University of Medical Sciences, Shiraz, Iran.

Correspondence:
Behnam Honarvar MD, MPH, Department of Communicable Diseases, Vice-Presidency for Health, Central Headquarter, Shiraz University of Medical Sciences, Shiraz, Iran
Tel: +98 711 2305410-19, ext: 2432
Fax: +98 711 2347315
Email: honarvari32@yahoo.com
Received: 2 March 2010
Revised: 22 June 2010
Accepted: 21 September 2010

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