

**Type: Poster Presentation**

Final Abstract Number: 52.003

Session: *Epidemiology and Public Health II*

Date: Friday, April 4, 2014

Time: 12:45–14:15

Room: Ballroom

**Effects of Motivational Interviewing (MI) on treatment adherence of pulmonary tuberculosis (PTB) patients**

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**Background:** Tuberculosis (TB) is one of the deadly diseases worldwide. It is curable however fatal if left untreated. Non-adherence has been noted as the barrier in eliminating TB. Adherence declined due to lack of motivation. Hence, modification on the attitude and behavior is needed to enhance treatment adherence. MI has been used in smoking cessation, however no literature has been found on its use among TB patients. The aim of this study is to evaluate the effects of a nurse delivered MI as adjunct to standard health education to enhance treatment adherence of pulmonary Tuberculosis (TB) patients.

**Methods & Materials:** The study utilized a true experiment, pre-post test design. Newly diagnosed PTB patients receiving treatment was randomly assigned to two groups using multistage cluster sampling. The experimental group received four (4) sessions of 30-minutes nurse delivered adjunct MI every week for one month, while the control group received standard health education. MI is a counseling style that used questions to direct behavior change by expressing empathy, developing discrepancy, rolling with resistance and supporting self-efficacy. Adherence was measured through Medication Adherence Self-Efficacy Scale and Sputum AFB microscopy before the intervention and 2 weeks after the intervention.

**Results:** Independent T-Test results revealed there was a significant difference in the self-efficacy scores ( $p=0.036$ ) and sputum AFB count ( $p=0.047$ ) between the two groups before and 2 weeks after the intervention. The mean pre and posttest self-efficacy scores of the experimental group (2.32, 2.97) is higher compared to the control group (2.31, 2.32). Moreover, the mean pre and post test sputum AFB count of the experimental group (1.6, 0.07) is lower compared to the control group (1.61, 0.4). Knowledge about the disease and its treatment combined with motivation interviewing can increase self-efficacy of patients to treatment adherence. Consequently, resulted in a rapid decrease in the number of M. Tuberculosis in sputum microscopy. Moreover, result of the study shown that MI has significant psychological (75%) and physiological (72%) effect to diseases.

**Conclusion:** Motivational Interviewing delivered by the nurse as an adjunct to the standard health education is effective in enhancing treatment adherence of PTB patients.

<http://dx.doi.org/10.1016/j.ijid.2014.03.920>**Type: Poster Presentation**

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**Crimean Congo hemorrhagic fever case fatality and associated factors in southeast of Iran, 1999–2012**

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**Background:** Since June 1999 more than 70% cases of Crimean-Congo hemorrhagic fever (CCHF), an arboviral disease, in Iran have been reported from Sistan and Baluchestan province, southeast region. The main objective of this study was to investigate CCHF case fatality rate and to identify demographic and epidemiological factors influencing patient mortality.

**Methods & Materials:** In this cross-sectional study, demographic and epidemiological information for laboratory confirmed cases of CCHF diagnosed between 1999 and 2012 was collected using the Sistan and Baluchestan Provincial Diseases Control Department data. Descriptive analyses and logistic regression models were used to identify factors associated with CCHF mortality.

**Results:** This study included a total of 566 (488 males and 118 females) confirmed cases of CCHF. The mean of age of patients was  $31 \pm 14$  years ranging from 4 to 82 years. The case fatality rate was 14.8%. In comparison with female cases, males were more likely to die because of CCHF (87.7% versus 75.2%,  $p$ -value=0.001). A greater proportion of CCHF cases living in rural areas died as compared with those living in urban areas (20.5% versus 13.4%) and the difference was marginally statistically significant. The mean of diagnosis delay in patients died and cured was  $3.8 \pm 3.1$  and  $3.6 \pm 2.8$  days, respectively. Factors independently associated with CCHF case fatality included male gender (OR=2.77, 95%CI 1.62–4.73) and being involved in jobs handling and slaughtering livestock or looking after CCHF patients (OR=1.72, 95%CI 1.04–2.84).

**Conclusion:** Our results showed that CCHF case fatality rate in southeast of Iran was comparable to those reported in similar studies. Our findings also reiterated that CCHF is an occupational disease and males dealing with livestock are more likely to die of CCHF. Improving public knowledge and awareness can result in a better judgement of CCHF risk, hence better compliance with taking precaution measures to prevent contracting the infection.

<http://dx.doi.org/10.1016/j.ijid.2014.03.921>