Outbreak investigation of HIV/AIDS in Jalalpur Jattan (JPJ), Pakistan-2008

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Background: In Summer, 2008 an NGO in Jalalpur Jattan (JPJ) arranged two voluntary HIV screening camps after observing many HIV infected persons in their treatment center. 88 (35.8%) of 246 persons screened were positive by rapid test. Intense media coverage made village residents hostile to further inquires. The Pakistan Field Epidemiology Training and Laboratory Training Program (FELTP) was requested by the Provincial Aids Control Program to carry out an epidemiological investigation.

Methods: HIV-positive persons or family members of patients who died of AIDS and consented for an interview during 15 December 2008 to 2nd January 2009 were investigated. Enhanced contact tracing was done to identify additional cases. A structured questionnaire was used to collect data regarding clinical history, HIV knowledge & practices. The national HIV/STI Referral Laboratory collected blood samples for HIV serology and molecular studies to identify additional cases. Enhanced contact tracing was done to identify additional cases. A structured questionnaire was used to collect data regarding clinical history, HIV knowledge & practices. The national HIV/STI Referral Laboratory collected blood samples for HIV serology and molecular studies independently following pre and post counseling.

Results: Of 53 HIV-infected persons investigated; 47 (88.7%) were alive, 30 (50.9%) female. Median age was 35 years (mean 34.7, range 3-70), including six children of 10 years or less. Clinical symptoms included; unexplained fever (77.2%), diarrhea (65.4%) and skin infections (50.9%). 24.5% had co-infection with tuberculosis and 18.9% with hepatitis B or C. Unsafe injections (96.2%), dental procedures (40%) and barber shop visits among males (72%) were common risk factors. Extramarital sex was reported by 9.4% including 3.8% who admitted paid sex. Only 19 (35.8%) were aware that HIV can be sexually transmitted or transmitted by blood, 18 (34%) were aware that HIV can be sexually transmitted or transmitted by blood. 18 (34%) were aware that HIV can be sexually transmitted or transmitted by blood. Phylogenetic analysis revealed HIV infection in this group was HIV-1 Subtype A, transmitted over a decade, likely endemic, and not an outbreak.

Conclusion: Investigation indicates high rates of HIV infection in JPJ. Unlike other studies from Pakistan, increased rates were observed in females and under 12 children. Sociocultural norms and stigmatization limited in-depth investigation of sexual practices and history of drug abuse. Shift of HIV from high-risk to general population was evident and requires vigilant surveillance besides targeted health education, VCT and clinical management services to limit disease spread.

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A randomized controlled field trial of HIV-STI risk reduction program among undergraduate students at a University in Northern Nigeria

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Background: Nigeria with over 2.9 million people living with HIV is at risk of increased burden and transmission HIV. It has the second largest burden of HIV infection in the world with young people at higher risk. The aim of this study was to evaluate the effectiveness of a peer-led HIV-STI intervention program framed on the Information-Motivation-Behavioral skills model among undergraduate students at Ahmadu Bello University, Zaria- Nigeria.

Methods: Randomized controlled field trial design was used to investigate the effectiveness of an intervention program developed for HIV-STI risk reduction. Participants were randomized to either the intervention group or control group. An 8-hour integrated HIV-STI prevention program comprising of four structured modules was developed and delivered to the intervention group while the control group received another 8-hour program on career development. Both programs were delivered by trained peers. Two-way repeated measure ANOVA was applied to assess the effectiveness of the intervention. The outcome measures including HIV-related and STI knowledge, sexual risk behaviors, attitude and stigma were assessed at baseline, immediately post-intervention, at 3 months and 6 months postintervention.

Results: Respondents in the intervention arm showed significant improvements in HIV-related and STI knowledge, sexual risk behaviors and attitudes towards HIV-STI prevention. Conversely, there was no difference in tolerance towards PLHIV, which was assessed using the stigma scale. There were significant main effects for group [F = 155.94, p < 0.001, n2 = 0.401]; time [F = 248.35, p < 0.001, n2 = 0.516] and group x time interaction [F = 162.96, p < 0.001, n2 = 0.412] for HIV-related knowledge. Similarly, the main effects for group, time, and group x time interaction for STI knowledge, sexual risk behaviors, and attitudes were also significant.

Conclusion: The peer-led HIV-STI intervention program developed was effective in improving knowledge and attitudes towards HIV prevention and reducing sexual risk behaviors among Nigerian university students.

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