



## EDITORIAL

# Human Diseases 101: Nature Versus Nurture

Researchers and readers of public health communities in Korea, request an inclusion of more social science papers in this journal. We have, therefore, decided to expand the proportion of these papers from this year. In this regard, more editors are invited to the editorial board from the March 2012 issue. The standard editing style format for this journal is AMA.

Are the environments favorable to human beings? What about man-made environments? Unexpected impacts are imposed on our lives; we vividly remember the devastating combination of the Fukushima nuclear plant meltdown and tsunami in 2011.

Korea witnessed a surprising atmosphere in 2010. In April 2010, the Korea Centers for Disease Control and Prevention (KCDC) received a report from a general hospital located in Seoul, in which a series of deaths of pregnant or postpartum women with acute fibrotic lung disease of unknown cause, from distinct geographical regions, were mentioned. The central epidemiological investigation team was dispatched by the division of epidemic intelligence service, KCDC and an investigation into the epidemic was initiated. A provisional epidemiological conclusion in a 1 month case-control study was surprising. Humidifier disinfectants were thought to be strong candidates for these deaths (odds ratio = 27.8). To test the effects of ingredients in the disinfectants, an animal study was designed and followed. In December 2011, following intermediate results, disinfectants with the hazardous ingredients, polyhexamethylene guanidine and oligo-[2-(2-ethoxy) ethoxyethyl guanidinium chloride], were forced to withdraw from the market in Korea [1]. Further outcomes will be available in upcoming papers.

The first HIV/AIDS case was reported in 1985 in Korea. In 2011, the number of HIV-positive diagnosed people in Korea was 7835 [2]. A prevalence of < 0.1% is still quite low in world perspective, but there has been a sharp increase in recent years; from 2003 to 2011, the total number of Koreans diagnosed with HIV has more than tripled from 2470 to 7835 [2,3]. Of the diagnosed

cases, 24.5% were young people aged between 10 and 29 years. The ratio of male to female is 9 to 1. The main route of HIV transmission is through sexual contact. About 99.0% of HIV-positive Koreans were infected by heterosexual and homosexual contact in and out of the country [2].

The incidence of HIV among Korean women is expected to increase, due to the rapid increase in newly infected HIV males and their risk-taking behavior (e.g., low use of condoms, sex with multiple partners). In Korea, the HIV data suggest that most HIV-infected females were infected by heterosexual contact, with only a small percentage of females being exposed through blood transfusions. None were exposed through homosexual contact and/or injection drug use up to 2009. Most Korean women are infected with HIV during sex with an HIV-infected man. Of the new HIV infections among Korean women in 2009, the KCDC attributed all (97.9%) to heterosexual contact [4].

Issues centered on adolescents' sexuality in Korea have become a subject of concern to society, due to increased sexual behavior, with an associated rise in unplanned pregnancies, induced abortions and sexual transmitted infections (STIs), including HIV [5,6]. Knowledge is an important prerequisite for prevention in other areas of HIV transmission. Most national programs have made a considerable effort to increase knowledge about HIV, the behaviors that spread the disease and ways it can be avoided, and to reduce the stigma against people with HIV/AIDS (PWHAs) [7]. Social stigma has interfered with the effective response to HIV/AIDS, deterred people from being tested for HIV and from disclosing their positive status to sexual partners, family and friends [7,8]. Stigmatizing attitudes are strongly associated with the misconception of HIV transmission with negative attitudes toward the social group, particularly homosexuals and sex workers in Korea [7,9].

There are few reports on HIV/AIDS among adolescents in Korea, and comprehensive, up-to-date studies on the knowledge, attitude and related behaviors are quite

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limited. This study examined the gender differentials in specific aspects of knowledge about HIV, stigmatizing attitudes towards PWHAs and sexual behaviors. In addition, this study examined the factors that affect the stigmatizing attitudes towards PWHAs. The results provide an empirical basis for developing culture and gender-specific interventions for the prevention of HIV infection among young people in Korea.

In this issue, the authors concluded that the level of knowledge of HIV/AIDS among Korean adolescents was low, as indicated by a correct response rate of 54% (7.0/13). The level of discriminatory attitudes towards HIV-infected persons was high. Male students reported a higher proportion of sexual experience (7.0% vs. 2.6%, Odds Ratio = 2.89,  $p < 0.001$ ). Only 39.0% used a condom during their last sexual encounter; more girls (53.3%) than boys (35.3%) reported using a condom. These findings could be a basis for increasing HIV knowledge, reducing HIV stigma and providing sex education, focusing on safer sex practices among young adults in Korea [10].

We expect more HIV/AIDS papers to reveal the mysterious male dominant ratio, peculiar to Korea.

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