Impact of social determinants on health

Song et al (2011) studied the influence of social determinants of health on disease rates. They specified AIDS as the disease of concern and utilized data from American Community Survey. They used correlation and partial correlation coefficients quantify the effect of socioeconomic determinants on AIDS diagnosis rates in certain areas and found that the AIDS diagnosis rate was mutually related with kind, marital status and population density. Poverty, education level and unemployment also determine the cause of disease in an individual.

In developed and developing countries socioeconomic status proved to be an important cause of cardiovascular disease. Survey studies showed that education was the most important socioeconomic determinant in relation to cardiovascular risk factor. Smoking was also a major cause of cardiovascular disease. Low socioeconomic status had a direct relationship with higher levels of cardiovascular risk factors (Yu et al, 2000; Reddy et al, 2002; Jeemon & Reddy, 2010; Thurston et al, 2005; Janati et al, 2011 and Lang et al, 2012).

Lantz et al (1998) investigated the impact of education, income and health behaviors on the risk of dying within the next 7. 5 years with longitudinal survey study. The results of cross tabulation showed that the mortality rate has a strong association with education and income.

Habib et al (2012) conducted a questionnaire based survey to measure the social, economic, demographic and geographic influence on the disease of bronchial asthma in Kashmir valley. After analysis in SPSS they concluded that non smokers, males working in farms and females working with animals

have a high incidence of Bronchial Asthma. The study also showed a significant relationship between the age and disease.

Arif and Naheed (2012) used “ The Pakistan Social and Living Standard Measurement Survey 2004-05” conducted by the Federal Bureau of Statistics to determine the socioeconomic, demographic, environmental and geographical factors of diarrhea morbidity among the sampled children. Their study found a relationship between diarrhea morbidity and economic factors particularly ownership of land, livestock and housing conditions. Child’s gender and age, total number of children born, mother’s age and education and sources of drinking water did show significant effect on the diarrhea morbidity among children.

Aranha et al (2011) conducted a survey in Brazil’s district São Paulo, to determine the association between children’s respiratory diseases reported by parents, attendance at school, parents’ educational level, family income and socioeconomic status. By applying chi square test they concluded that the health of children is associated with parents’ higher education, particularly mothers. Family income, analyzed according to per capita income did not affect the number of reports of respiratory diseases from parents.

Deolalikar and Laxminarayan (2000) used data from 1997 Cambodia Socioeconomic Survey to estimate the influence of socioeconomic variables on the extent of disease transmission within villages in Cambodia. They concluded that infectious diseases were the leading cause of morbidity in the country. Younger adults were less likely to get infected by others, but it

increased with age. Income and the availability of a doctor had a significant effect on disease transmission.

Survey studies based on different countries showed a strong association between socioeconomic factors (income, education and occupational position) and obesity. After analysis there was a significant effect of consumption of low quality food due to economic factors on increased obesity. For men, both the highest level of occupational position and general education completed were found to have a significant effect on obesity while women in the lowest income group were three times as likely to be obese as women in the highest income group (Kuntz and Lampert, 2010; Akil and Ahmad, 2011 and Larsen et al, 2003).

Yin et al (2011) used data from the 2007 China Chronic Disease Risk Factor Surveillance of 49, 363 Chinese men and women aged 15-69 years to examine the association between the prevalence of self-reported physician diagnosed Chronic Obstructive Pulmonary Disease (COPD) and socioeconomic status defined by both educational level and annual household income. Multivariable logistic regression modeling was performed. Among nonsmokers, low educational level and household income were associated with a significant higher prevalence of COPD.

Siponen et al (2011) tried to study the relationship between the health of Finnish children under 12 years of age and parental socioeconomic factors (educational level, household income and working status) by conducting population based survey. The analysis was done by using Pearson’s Chi-Square tests, and logistic regression analysis with 95% confidence intervals.

The results showed that parental socioeconomic factors were not associated with the health of children aged under 12 years in Finland.

Washington State Department of Health (2007) examined Washington adults and inferred that adults with lower incomes or less education were more likely to smoke, obessed, or ate fewer fruits and vegetables than adults with the broader culture, higher incomes and more education. In cultures where smoking was culturally unacceptable for women, women died less often from smoking-related diseases than women in groups where smoking was socially accepted. Lack of access to or inadequate use of medical services, contributed to relatively poorer health among people. In lower socioeconomic position groups health care received by the poor was inferior in quality. People of higher socioeconomic position had larger networks of social support. Low levels of social capital had been associated with higher mortality rates. People who experienced racism were more likely to have poor mental health and unhealthy lifestyles.

Hosseinpoor et al (2012) took self-reported data, stratified by sex and low or middle income, from 232, 056 adult participants in 48 countries, derived from the 2002–2004 World Health Survey. A Poisson regression model with a robust variance and cross tabulations were used deducing the following results. Men reported higher prevalence than women for current daily smoking and heavy episodic alcohol drinking, and women had higher growth of physical inactivity. In both sexes, low fruit and vegetable consumption were significantly higher.

Braveman (2011) concluded that there was a strong relationship between income, education and health. Health was improved if income or education increased. Stressful events and circumstances followed a socioeconomic incline, decreased as income increased.

Lee (1997) examined the effects of age, nativity, population size of place of residence, occupation, and household wealth on the disease and mortality experiences of Union army recruits while in service using Logistic regression. The patterns of mortality among recruits were different from the pattern of mortality among civilian populations. Wealth had a significant effect only for diseases on which nutritional influence was definite. Migration spread communicable diseases and exposed newcomers to different disease environments, which increased morbidity and mortality rate.

Ghias et al (2012) studied the patients having HCV positive living in province of Punjab, Pakistan. Socio-demographic factors and risk factors were sought out using questionnaire. Logistic regression and artificial neural network methods were applied and found that patient’s education, patient’s liver disease history, family history of hepatitis C, migration, family size, history of blood transfusion, injection’s history, endoscopy, general surgery, dental surgery, tattooing and minor surgery by barber were 12 main risk factors that had significant influence on HCV infection.

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