Literature review on health inequity and inequality

Sociology, Population

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Abstract

Tuberculosis, better known as TB, is an infectious disease that affects the global community. Its incidence rate has been significant in the New Zealand region where the disease is considered to be pandemic and has accrued a significant burden on the healthcare system for its demands on timely diagnosis and treatment. Although a decline of its incidence in New Zealand was noted, such decline halted sometime in the 1980’s and the rate of incidence becomes consistent thereafter and it remains to be an apparent health problem in the region which is highly associated with migration issues and other factors that are responsible for the local transmission of the disease and consequently as a growing health problem in the country. This paper has the objectives of providing insights regarding the incidence of tuberculosis in New Zealand including an analysis of its trends and features relative to the migration factors, ethnic differences, age, and other socioeconomic problems and inequity and inequality of health services that contribute to the prevalence of TB in the New Zealand. The inequities in health services available for the local community and the migrating population who are affected by the disease will also be discussed in this

paper including the feasible interventions that could help address these inequalities in the health services available for the affected communities and population.

Tuberculosis is a bacterial infectious disease that is caused by the Mycobacterium tuberculosis that mainly affects the lungs but the infection may easily spread to affect the other organs of the body especially among individuals with a compromised immune system. The disease is transmissible when one inhales the bacteria such as when one coughs or sneezes. According to the Centers for Disease Control and Prevention (2012), tuberculosis affects one third of the world's population and it is the leading cause of death among patients with HIV. With its growing global prevalence and being an infectious kind of disease, its incidence may easily be transported from one country to another. New Zealand is reported to have a higher incidence of tuberculosis as compared to other countries like Canada and USA owing to migration.

In assessing the trends and key features of tuberculosis in New Zealand, it is worth noting the nature of the disease and how it may pass across borders by migrating ethnic groups undetected. Diagnosing tuberculosis is often difficult owing to its incubation period that may take between 2 to 14 weeks, the period within which an infected individual remains to be asymptomatic. Thus, it is possible that a member of a migrant group who have already been infected with active TB will pass the medical screening program for migrants in New Zealand. It is reported that 6. 9% of individuals who have an active disease from their country of origin were not detected by the health screening prior to their admission to the country (Littleton, Park, Thornley,

Anderson and Lawrence, 2008). Owing to this condition, migrant groups with undetected TB affect the locals. Refugees are among the groups of migrants identified to be the population that carries the disease in the country. As part of the New Zealand's humanitarian program, these refugees receive proper prophylaxis treatment and they are given the appropriate screening such as chest x-ray and sputum tests in order to diagnose tuberculosis. The refugees usually stay within the reception center for refugees in the country for at least 6 weeks and this unfortunately results in poor compliance of the complete period of treatment required for tuberculosis. According to Noah (2006), sputum testing is usually repeated after two months post treatment and TB patients usually requires up to 6 to 8 months of treatment regimen. A follow through treatment is often needed in order to completely eradicate tuberculosis and refugees may no longer receive this kind of long term treatment owing to the unequal opportunity to access free medical and health services for their condition when they move from place to place. The incidence of the reactivation of the disease is significant in the population of more than 40 years old who have contracted the disease many years ago while those groups belonging to younger than 40 age group are mostly infected with recent transmission (Das, Baker, Venugopal and McAllister, 2006).

Migration plays a significant impact on the prevalence of tuberculosis as a global health problem. Countries that receive large group of migrants like the USA, Canada and New Zealand administer Migrant Screening Criteria that is usually based on the incidence rates of infectious disease from the country of origin but this approach is an ineffective means of measure to

address the global mobile population according to the Forum on Microbial Threats (2006). Refugees are often difficult to track down with their departures, transit times and arrivals which are factors that contribute to the inequities on the health services that may be extended to this ethnic group. Notable is the reduction of tuberculosis in the New Zealand born population except for the Pacific and Maori people who are less than 40 years old, the increase of TB rates in this population is due to a less effective local TB control measures, household overcrowding, and risk of exposure to the Pacific migrants with tuberculosis.

Demographic literature links migration with high rates of tuberculosis incidence among the Pacific Island children in New Zealand due to the fact that their parents are probably born overseas and bear their children in the country. Most of these children are living with families having poor socioeconomic status thus strongly linking the disease to poverty as well (Howie, Vos, Baker, Calder, Grimwood and Bymes, 2005). The literature likewise pointed out the unrecognized burden of adult disease that results in an on-going transmission of the disease in the community and losing the opportunity to administer an effective preventive measure. This missed opportunity to eradicate tuberculosis in the adult population carries with it a cycle of transmission of TB in children which is a condition identified to be a marker of transmission of the infection in the whole community.

Analyzing the ethnic and age demographics of tuberculosis in New Zealand, the Europeans have the lowest rate of incidence while it is highest on Maori and Pacific population. It is also highest among individuals from this population who are more than 70 years old but it is likewise high in young

Pacific adults between the age of 20 and 39 (Das, Baker, and Calder, 2006). With this demographic, it can be deduced that tuberculosis in New Zealand affects a diverse ethnic population especially the Maori and Pacific people whose socioeconomic status of this population plays a crucial factor of the prevalence of tuberculosis. Unlike the European population, these groups have limited access to health care services and facilities resulting to a delayed diagnosis of their infection with a dominant transmission rate owing to overcrowding which consequently make them more susceptible to outbreaks. Historically, tuberculosis have been associated with overcrowding where the transmission of the disease is common where two or more persons share a single room (Gandy and Zumla, 2003). The household overcrowding is highly associated with poverty as well and eradicating these two linked factors could help reduce the rate of incidence of tuberculosis in New Zealand. The pre-existing TB infection in New Zealand is associated with importation or immigration factor and the incidence of re-activation of the disease usually occurs in the population of 40 years and higher. New transmission occurs in households where overcrowding is apparent. Health disparity is also common among the low income population and the transmission also takes place in prison and workplaces where there is also overcrowding (Baker, Das, Venugopal and Chapman, 2008). Poverty is pointed out to consistently fuel the occurrence of tuberculosis and poorer socioeconomic status of the affected population in New Zealand becomes a barrier to a more accessible health care services and diagnosis to be available for them.

The identification of health inequalities and disparity is important in order to

effectively address the need to control the spread of infection due to tuberculosis. Thomas and Pegler (2006) noted that the resurgence of the disease becomes a prevalent global health concern which does not only occur in New Zealand but even in other wealthy countries as well. The mobility of tuberculosis is a crucial factor that needs to be considered where it could easily be transmitted from one person to another and even across geographical borders. The modification of health programs make treatment and diagnosis more accessible to ethnic groups in order to control the spread of diseases. Because the therapy needed for tuberculosis may entail a long process, the recognition of inequity in terms of the ability of the government to provide prolonged medical assistance among refugees and migrants to ensure full compliance of their treatment will help improve health policies and programs that will help extend a continuous treatment for them until they attain full recovery. This will relatively help reduce the recurrence and transmission of the infection. The recognition of the health inequity will improve health legislations that would include the ethnic population prone to TB in the allocation of the budget for the programs needed to improve the diagnosis and treatment response towards tuberculosis. This will also help re-define the health policies that would necessarily include the accessibility of the health services for the low income population in the country.

In the presence of an unequal access to health resources, housing, employment and education, health disparities usually occur. It is also worsened by the socioeconomic factors such as poverty and unemployment. With the identification of these intertwined factors that contribute to the rising incidence of tuberculosis in the country, it is easier to trace the

common loopholes in the health measures, policies and programs that tend to falter in effectively addressing the common issues involved why TB remains to be a nationwide health problem in New Zealand. The discovery of the existing health inequality will also offer an opportunity for the improvement of the health services accessibility and the common barriers for an effective and timely diagnosis of tuberculosis. The mere recognition of the ethnic demographics that are commonly affected with tuberculosis will help the government devise a special health program for these populations only where their unique health needs may be fully addressed (Bernan, 2008). Once the health inequalities are recognized and addressed, it will promote a healthier community in New Zealand where everyone will enjoy an easy access to health care services, helping them live happily and with equal opportunity to live a healthier life. Below is a conceptual model that represents the common causes and features of health inequity in New Zealand relative to the effective diagnosis, treatment and control of the spread of tuberculosis across its region.

Health Inequities in New Zealand

(A Conceptual Model Derived from MoH)

The conceptual model represents the varying factors affecting the prevalence of tuberculosis in New Zealand including the incidence of the transmission that contribute to the causes of health inequity in the community. The socioeconomic and environmental factors are influenced by the existing condition of unemployment and poverty which are barriers to receive a timely diagnosis and treatment for the condition. The under diagnosed migrants usually pass the TB screening owing to the transition of

the disease during its incubation period that makes the infection undetectable by diagnostic screenings. Owing to the lack of financial capacity of the affected individuals such as the refugees, they could no longer afford to pay for their own treatment when their symptoms begin to manifest and the health services are no longer accessible to them. The lack of housing programs and overcrowding also promote the progressive spread of the disease in the local community. Refugees are always mobile and do not have a permanent place to stay preventing those with diagnosed active TB who are under medication to complete their treatment regimen.

The ethnic affiliation of the affected individual is also another contributing factor to the health inequity existing in New Zealand. The Moari and Pacific Islander are considered as high risk populations owing to their socioeconomic condition. According to Bargh (2007), the health disparity concerning the Maori emanates from the unequal distribution of socioeconomic resources in this ethnic group. The conceptual model of Williams also pointed out the role of race in terms of identifying the common causes of health disparity with biological, behavioral and health status of the susceptible population on inequities on health (Williams, 1997). Those who are between 20 and 39 years old are more at risk from local infection while those who are more than 40 years old are highly susceptible for reactivation of their disease owing to poor access to health services and other preventive medications that are essential in retarding the risk for recurrence of their disease.

The recognition of the existence of health inequities in New Zealand opens the opportunity to recognize the sources of the disparity of health services

and to provide the solution that will address how to eradicate health inequities among these populations. Migrants are the dominant groups believed to bring tuberculosis in New Zealand, thus both regional and global health policy reforms that will provide adequate initiatives for preventive measures against tuberculosis. The socioeconomic deprivation among the susceptible ethnic groups should be addressed as well by pursuing a legislative measure that will accord equity in terms of equal opportunity to avail of housing programs, the right to employment and to receive equitable wage rates as the locals. Eliminating poverty will tremendously result in a significant decline of TB incidence in New Zealand. The state can curtail the long term burden of tuberculosis prevention and treatment by disseminating health information about the disease, awareness and preventive health education and work opportunities for the affected ethnic minorities. Refugees who were identified to be positive with TB and already taking medications need consistent monitoring of their compliance to therapy. By providing equal access to housing programs to the ethnic minorities will likewise eliminate overcrowding which is a contributor in the transmission of the disease. Implementing cultural competence education among the health workers will also enable the health providers to be competent in dealing with the ethnic minority groups where language and cultural differences may possibly arise that also become a barrier for a more accessible health services in New Zealand.

In conclusion, health inequity deprives certain ethnic minority groups or community in New Zealand to have an equal right to be healthy with the equal opportunity to access health services in order to live a healthier and

better quality of life. It usually affects the minority and socioeconomically disadvantaged group which are highly susceptible to contract the disease of tuberculosis that is a consistent dominating health problem in New Zealand. Health reforms are required in order to address the existing health equity to effectively formulate measures that will optimize the ability of the government to efficiently diagnose, treat and monitor compliance to treatment and to implement preventive measures against the transmission of tuberculosis. Evidence based research point out the socioeconomic factor as the most difficult source of problems to overcome health inequity (World Health Organization, 2004). This can be addressed by investing in health system research that is aimed at improving the delivery and accessibility of health care services among the underprivileged population susceptible to tuberculosis and among migrants as a responsive action on eradicating the regional problem of health inequity in New Zealand.

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