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Tuberculosis among nomadic women in perception of socio-economic status: A case of Sahiwal, Pakistan

Yumna Iqbal [1], Zahoor Hussain Javed[2*], Muhammad Shabir[3], Shakoor Ahmed[4]
[1] Institute of Social Sciences Bahudin Zakeriya University, Multan, Pakistan; [2] Department of Economics, Government College University, Faisalabad, Pakistan; [3]Department of Sociology, Government College University, Faisalabad, Pakistan; [4] Information Studies, Bahudin Zakeriya University, Multan, Pakistan
*E-mail: javedmarth02@gmail.com

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Abstract

Using data from a representative sample of the Nomadic women community, this article evaluates the effect of social and economic factors on tuberculosis disease of nomadic women in district Sahiwal, Pakistan. It also carries out impact of geographical mobilization of nomadic women on their health status. The socio-economic indicators like health education, income and availability of health facilities by government play inevitable role in diminution of tuberculosis. Data collected from 255 nomad women through the snowball sampling technique. Data were analyzed with the help of binary logistic regression model. The finding of the research shows that nomad women do not get proper health care services and have not good information regarding their health. This article makes a valuable contribution to the literature by recommending that there is high need to introduce health care programs and health care services, which may protect the health of nomadic women.

Keywords: Nomadic women, Availability government health facilitates, Tuberculosis, Hospital preference during illness, Education

Introduction

A number of nomadic families are camped with their animals in temporary tent houses on vacant lands. Nomads possess caravans in European countries. The animals are used as a means of transportation by nomads in Asian countries. The majority of suburbs and villages in South East Asia, including Pakistan are occupied by nomads. In Pakistan the northern and tribal areas, four provinces and also the suburbs of the federal capital, Islamabad are possessed by nomad community. Some from them move here and there and search marriage ceremonies, post death religious (e.g third day prayer for deceased person called Qulkhani, 40th day prayer called chillum and prayer on every Thursday called Jumerat etc) ceremonies, and others festivals programs where they fetch plenty of remaining food for their children and families. The definition of nomads is described in Oxford Dictionary, 6th Ed such as "a nomad is a member of a tribe that moves with its animals from place to place".

Dyson-Hudson (1969) stated that nomadic communities have deep roots in anthropology and their living style shows perfect image of traditional societies and they move from one place to another to attain high level of self-sufficiency. The lack of health, educational facilities, sanitation and communication system are common in nomadic communities. Cleemput,(2001); Dubey, (2016). Omar, (1992) emphasize that there are 50-100 millions nomads, and semi-nomadic live in underdeveloped countries. Krätli & Dyer, (2009) advocated that there is 7-10 percents of total population estimated as nomads in India but there is no accurate census regarding nomadic

population yet in Pakistan. Nevertheless, millions of nomad's population exists in Baluchistan and Khyber Pukhtan Khwah provinces. The nomad women earn their income from the sale of live stocks, live stock product, and pots of mud and trade of hand made products including working as laborers at different sites. Pastoral are the disempowered people of society (Little, 2006). Reddy (2002) argue that health culture of nomadic women is very poor and they face lack of health facilities, political and economic problems. Nomadic tribes are male dominant and have a patriarchal system. The nomadic communities make handmade commodities and sell them in the villages and earn money. They mostly self-medicated for cure to their diseases with home herbal medicines (Hampshire, 2002). The infections disease or illnesses are main cause of maternal mortality and infant mortality in Pakistan. Anyhow settled communities are not seem as healthier than nomadic communities, nevertheless, nomadic communities had inadequate health facilities, low standard-food, health care services, no education and no safe drinking water. Nomadic people are always on wheels and not intend to migrate towards a new place to live as there are some pull and push factors behind this migration (Sheikh, Velema, 1999) and Getahun, (2013). The main object of this study is to find the effect of socio-economic factors on tuberculosis on nomadic women community.

Figure 1: Living style of Nomadic community (Source: Google.com)

The mechanism of article is organized as follows. After presenting introduction of tuberculosis disease and social-factor among nomadic women, the review of the literature is discussed, furthermore, the hypotheses, the theoretical framework, and a brief perception of the nomadic women case, and an econometric analysis are developed. A descriptive statistics presents a better understanding of the general positions of the nomadic population. Finally, the hypotheses are empirically tested by binary logistic regressions to describe the tuberculosis status of nomadic women.

Pakale, (2015) emphasized nomads move from one place to another for their work and try to fulfill their necessities of life and nomads had no permanent house but they face lack of identity, illiteracy and health care facilities. The researcher examined social and economic status of nomadic

women under the patriarchal system thoroughly. In fact nomadic women have poor social and economic conditions in selected area of study. Hay (2012) and Dara, (2015) stated that nomadic communities have social and financial obligation. Therefore, nomadic communities are known as backward and they have different cultural and earning ways from settled communities. They illegally link with the class, caste and gender identities and this creates discrimination, corruption and they do illegal activities in society and create unrest in society.

The seasonal movements of nomads take place due to income inequality, unawareness, and inaccessibility of health services, to get food from festival and other ceremonies and lack of earning facilities, inadequate environmental conditions. Sachdev, (2011) ; Cambanis, (2005) and (Mocellin, et.al, 2008) emphasize high level of resources to improve the health status of nomadic communities and suggests an inverse relationship between the poor health of nomadic and migration. Furthermore, the researcher concluded that health status measured through two variables like socio-demographic, socio- medical and health services.

The researcher concluded that nomadic had strange diet intake and their social patterns is outlandish. Nomadic population get milk, meat from live stock and get diet also from live stock. The cereals, beans and grains are eaten by settled population. Thus, the researcher emphasize that both communities have large nutritional difference that cause of more disease among nomadic community. Barkey (2001); Chaisson, (2008) suggested that settled population face problem of safe and fresh water, pure nutrition, drainage system which create disease like cough, eye infection, chest infection than nomads.

The report of WHO explores those diseases like obesity, diabetes, cancer, TB, lungs cancer, breast cancer, and anemia disease occur among native poor people. The life style, movement and nutritional patterns of nomadic are caused of the chronic disease. Nomadic women do not get proper education and do not care health facilities. Colomeda, et.al (2000); Du, (200), Kratli, (2001); Madebo, (1999) and Stuckler, (2008) emphasize that gypsy's travel discretely without care of proper nutrition and health care facilities. Their movement is divided into three categories; movement less than months, movement greater than six months and semi stable movement and they further concluded that nomads had a specific characteristics and suffered long-lasting health problems. Alamri, et.al, (1996); Kale, (2015) and Begum, (2001) stated that government should provide the health facilities to nomadic group in their camps, mobile medical units to provide services at their door step and provide basic health education which bring change in their life style. Jamadar (2012) emphasize that a study was conducted on Indian nomads' mental health with sample 300 nomads, (150 males and 150 females). He divided nomads into three groups. 1. Fortune tellers 2.cattlemen 3 basketry. He investigated from these three groups his results revealed that fortune teller subgroup had more mental health as compared to the other two groups. Begum, (2001); Yimer, (2005); Dodd, (2016) and Maistat (2016) population suffered chest infection and other disease due to lack of health amenities.

Although there are a few studies on these related issues, the literature sketches a gap in directly understanding effect of socio-economic status on tuberculosis of nomadic women in specific study area. Thus this study will bring continuous improvement in the health status and welfare of nomadic women.

Materials and Methods

For primary data collection, we use focus group discussions (FGD) technique. This method was used by Morgan, (1998). This is so because nomads live and move from one place to other in a group and therefore they feel shy to share their views one-on-one basis. Thus they give their

responses only in a group without any hesitation. So many FGDs were conducted on different days June-September 2016 in the surrounding of Sahiwal in Chechawatni, Harpa and Burewala (Pakistan). The duration of the FGD varied from different group to different group. The primary data from 255 women was collected through the snow ball technique. In snow ball technique, initially ask from someone regarding residence of nomad families and then ask from these nomad families about the residence of other nomad families. Thus interviewees selected by referral and other referrals attained from choose referrals. The adult, wife, widow and female headed of household were chosen for interview. Socio-medical and socio-economic status related questionnaires were asked from the nomadic women. In this research, socio-economic status and health care services are used as explanatory variables and health status is used as explained variable (Foggin, 2006; Mocellin, 2008, Salzma, 2002). Nevertheless, some important information were missing regarding this study, therefore these information were collected again from specific area of study.

Figure 2. Map of Pakistan (Source: Google. Scholar)

In order to understand effect of socio-economic effect towards nomadic women in district Sahiwal, five hypotheses are examined.

Therefore, the first expectation is that tuberculosis of nomadic women is positively influenced by smoking (H1).

The second important expectation is that education put negative effect on tuberculosis of nomadic women (H2).

The third expectation is that availability of government health facilities (AGHF), which implies a view that AGHF reduce tuberculosis of nomadic women (H3).

Therefore, it is logical to expect that those nomadic women, who give preference to go hospital, they less suffer from tuberculosis disease (H4).

The last hypothesis under analysis here is that those nomadic women who keep their houses neat and clean, they suffer less as compared to others (H5).

Hypotheses first should have the positive effect on tuberculosis of nomadic women and hypothesis 2, 3, 4, and 5 have reciprocal effect on the disease (TB) on nomadic women.

Results and Discussion

Contextualization of the Sahiwal Case

The results regarding socio-economic status of nomadic women population in the study area are reported in Table 1. The data was collected from 255 nomadic respondents. The highest proportion (45.8percents) of the study subjects was within the age group of 25–34 years, and the least proportion (1.2percents) was ≥ 55years. 67.8 percent nomadic women were married, while 24.3 percent were single, 4.1 percent were widowed, 2.7 percent were separated and 0.8 percent was divorced respectively. More than half of the households (55.2percents) had a mean family size of 5. Regarding the occupation of the nomadic community 73.3 percent were nomadic and they collect flour and chapattis from house to house, 20.39 percent were related to cattle keeping, 0.8 percent was related to farming and 5.09 percent were related to others professions like Quran tutor, shopkeepers, businessmen respectively. Regarding nomadic' education, 88.62 percent were illiterate and they cannot read and write and 9.0 percent can read and write, while 2.4 percent have standard primary education, respectively. The entire study group was Muslims. From them 77.2 percent speak Punjabi and 22.2 percent speak Saraki language. The monthly income of the families lies between Rs. 3000/ to Rs.5000 respectively, while 11.7 percent have income more than Rs.5000. From them 1.97 percent did not disclose their income. The study demonstrated that TB was familiar among nomadic communities in the study area. The majority of the participants had heard about TB. The common sources of information mentioned by the respondents were radio television and old people. (33.72 percents) from radio, 23.14 from television and 43.13 percent heard from old people. The newspapers were not commonly used in the study area. Regarding TB treatment results are reported in Table.2 majority of the nomadic women from Sahiwal that is 69.01 percent knew that TB is curable, while 30.98 percent did not know regarding treatment of TB. However, 32.5 percent know that TB may be treated through modern drugs and 45.55 percent believed that TB can be treated through traditional methods (herbal treatment, dumdarrod, Quranic verses), 16.8 percent told this can be treated both ways. 4.71 percent nomadic women told that they did know regarding this disease. The major aspect of their life is mobility. They move from one place to another within their geographical boundaries seasonally or yearly. Movement is major characteristics of their life either they move due to household characteristics or individual characteristics.

Table. 1 Socio-economic status of the nomadic women, n = 255

Back ground characteristics	Number	Percentage (percents)
Sex		
Female	255	100percents
Age		
18-24	85	33.3
25-34	117	45.8
35-44	30	11.7
45-54	17	6.6
55>	03	1.2
Do not know	03	1.2
Ethnicity		
Punjabi	197	77.2
Saraki	58	22.8
Marital status		
Married	173	67.8
Single	62	24.3
Divorced	11	4.13
Widowed	7	2.7
Separated	02	0.8
Occupation		
Nomadic	187	73.3
Cattle keeping and nomadic	52	20.39
Farming	02	0.8
Others	13	5.09
Education		
Cannot read and write	226	88.62
Can read and write	23	9.01
Grade 1-5	06	2.4
Family size		
1-3 persons	24	9.4
4-6 persons	128	50.19
7.9 persons	58	22.7
Up to 10 persons	45	36.5
Drinking water source		
Hand pump	211	82.7
Tap	26	10.1
Stream	18	7.2
Smoking		
Yes	100	39.21
No	155	60.79
Religion		
Muslim	245	96.07
Non-Muslim	10	3.93

Back ground characteristics	Number	Percentage (percents)
Household income		
Less than Rs.3000	143	56.07
3000-5000	77	30.19
5000>	30	11.7
Do not disclose their income	05	1.97
Information sources		
Radio	86	33.72
Television	59	23.14
Persons	110	43.13
Newspaper	-	-
Mobility		
Yearly		60.4
Seasonally	101	39.6

Table. 2 Percentage distribution of respondents' knowledge regarding TB treatment n= 255

Variables	Nomadic women	Percentage (percents)
TB is treatable		
Yes	176	69.01
No	79	30.98
TB treatment better through		
Modern drugs	83	32.5
Traditional	117	45.88
Both	43	16.8
Do not know	12	4.71

During movement, they suffer health issues and have poor access to health care services. Generally, from total population of nomads 39.6 percent of population move seasonally and 60.4 percents move yearly. The most of nomadic women puffs water pipe/ Hukka or smoke cigarette. Nevertheless 60.8 percent do not make smoke, 38. 2 percent nomadic women puff hukka or cigarette.

Table 3. Logit Regressions results regarding Tuberculosis and nomadic women

Variable	Coeff	Std. Error	z-Statistic	Prob.
C	-3.30	1.005	-3.28	0.001
SMOKE	-0.47	0.46	-1.02	0.307
EDU	-0.16	0.03	-4.56	0.000
AGHF	-0.20	-0.06	-3.41	0.006
HPDI	2.31	0.72	1.20	0.113
HC	0.48	0.18	2.65	0.008

The regression results regarding tuberculosis and explanatory variables are reported in Table 3. The coefficient value of smoke is -0.47 and its statistics value is -1.02 which is statistical insignificant but the sign of independent variable is not matched with the sign of theoretical model.

The coefficient value of education is negative and highly significant. This shows that if one unit increases in education level, it reduces 0.16 units in the disease of tuberculosis, both variables move in opposite direction. There should be a positive relationship between smoke and TB (tuberculosis), they should move in same direction. Nevertheless, these are insignificant because the statistical value is less than the critical value.

There AGHF (availability government health facilities) and TB (Tuberculosis) have negative association between each other. The coefficient value of AGHF (availability government health facilitates) is -0.2 and z-stat is -3.41which is also significant at 1percents level of significance. This shows plenty of government health facilities will reduce the illness of tuberculosis because both move in opposite direction. There is a positive association between HPDI (Hospital preference during illness) and TB (tuberculosis). The coefficient value of HPDI is 2.31 and z-stat is 1.2, which is not significant at 5 percents level of significance and the sign of finding coefficient does not match with the sign of theory of frame work but it is not significant. The coefficient of HC (health careless) is significant at 10 percents level of significance. There is a positive association between HC (health careless) and TB. The Coefficient value of HC is 0.48 and z-stat is 2.65. The results show that nomadic women mostly do not care regarding their health, house cleanness and eating habits. Therefore, they suffer the disease of tuberculosis.

Conclusions

As previously stated, the aim of this article is to offer an explanation of effect of socio-economic factors on tuberculosis of nomadic women in district Sahiwal (Punjab), Pakistan. The results of this study indicate that nomads live in extended family pattern in different areas. In their area, they suffer lack of health facilities, no proper sanitation, no safe drinking water, no hospital, no electricity and no schools for boys and girls. This research finds some information regarding demographic profiles, socio-economic conditions and primary health care services.

The results show that effects of smoking on TB are negative but it insignificant even at 10 percent level. EDU and AGHF (availability of government health facilitates) have negative sign and these predict that rise of EDU and AGHF lessens level of tuberculosis disease. HPDI (hospital preference during illness), and HC (health careless) have positive sign but it is insignificant. These findings predict that both HPDI and HC move in same directions, but they are insignificant. Thus, they have almost no influence on tuberculosis. Nomadic women use herbal medicine during illness. The results of this study shows that despite lacking health care facilities and inadequate physical environment, nomad women are strong and have great capacity to involve in developmental activities.

Training should also be provided by Health Department of Government to the members of nomadic women regarding TB control programs. Further research is suggested among nomadic women on different livelihoods systems in the study area.

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